effects of intervention were lost in the background statistical noise. This study should not preclude a full integrated approach to the management of risk factors, including health education, dietary intervention, and drug treatment as it is necessary for the long term health of patients.

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Focus on modification of risk factors and patients' perception of lifestyle

EDITOR,—M E Cupples and A McKnight conclude that personal health education of patients with ischaemic heart disease had no significant effect on objective cardiovascular risk factors, although some beneficial effects on exercise and diet were seen.¹ In a preliminary survey of hospital inpatients recovering from an acute myocardial infarction we have come to broadly similar conclusions.

Using a structured questionnaire, we surveyed 23 patients (19 men, four women; mean age 63.5 years (range 37-81) within five years of admission with an acute myocardial infarction and three months later, after a cardiac rehabilitation programme. We assessed their overall awareness of their condition and their self reported profile of

Risk factors and intended changes in lifestyle among 23 patients surveyed within five days of acute myocardial infarction and three months later

	Baseline interview	Interview at 3 months	χ^2 Test and P value
<i>Risk factors</i>			
Smoking:			
Yes	8	2	$\chi^2 = 4.60$; P = 0.03
No	15	21	
Stressful lifestyle:			
Yes	13	5	$\chi^2 = 5.84$; P = 0.02
No	10	18	
Healthy diet:			
Yes	19	21	NS
No	4	2	
Exercise habit:			
Never	4	2	NS
Occasionally	6	5	
Moderately often	6	7	
Frequently	7	9	
<i>Intended changes in lifestyle</i>			
Eating a healthy diet:			
No change	12	5	$\chi^2 = 4.57$; P = 0.03
Considerable change	11	18	
More exercise:			
No change	10	9	NS
Considerable change	13	14	
Career change:			
No change	15	12	NS
Considerable change	8	11	
Driving ability:			
No change	19	16	NS
Considerable change	4	7	
Family life:			
No change	18	15	NS
Considerable change	5	8	
Social life:			
No change	17	17	NS
Considerable change	6	6	

risk factors and intended modifications to their lifestyle immediately after the infarct and at three months' follow up. Sixteen patients considered that they were more aware of their condition at follow up; six, however, reported that they were neither more nor less aware of their condition, and 10 considered that too little had been explained to them about their treatment, despite the rehabilitation programme.

There was a significant reduction in the prevalence of smoking and in stressful lifestyles after the infarction. Diet and the amount of regular exercise, however, were not significantly different (table). Intended changes in lifestyle also differed when patients were interviewed immediately after infarction and at three months' follow up. In particular, attitudes towards eating a healthy diet changed significantly ($P < 0.05$). There was, however, no significant change in intended exercise routine and the patients' perception of their career or employment, family life, driving ability, or social life (table).

Our patients, who were educated about cardiovascular risk factors and underwent a risk factor modification programme after an acute myocardial infarction, reported an increased awareness of their condition. Changes in risk factors remained limited, although the prevalence of smoking and a stressful lifestyle fell, and the rehabilitation programme seemed to have only a limited effect on the patients' perception of their career, family life, driving ability, and social life. To become more effective the current programmed approach to cardiac rehabilitation after myocardial infarction may need to place more emphasis on modification of risk factors and on the patients' perception of lifestyle.

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Travel prophylaxis

EDITOR,—Pierre van Damme and colleagues and E Walker support the findings of our study that high risk travellers should be selectively immunised, but they disagree about other issues. The aim of our study was to provide a framework in which policy related to travel prophylaxis could be explored in the context of the NHS.¹

While acknowledging that underreporting occurs, we used a correction factor of 50%. This factor includes adjustment for diseases with short incubation periods, such as malaria and typhoid, which may well present abroad. In the case of hepatitis A, the incidence in British residents is similar to that used in other studies,^{2,3} and we believe that it is realistic. Had we used a lower estimate of the prevalence of hepatitis A antibody, this would have implied a larger body of susceptible travellers for the same number of cases, as defined by laboratory and clinical reports (a higher proportion were children),² which lowers the incidence of disease. A lower incidence (0.032%) would represent 91 fewer cases avoided, reducing the costs of avoided illness by 31%, and with the same costs of prophylaxis the cost-benefit ratio increases to 8.3. Use of the Swiss incidence in travellers (0.3%) would imply a cost-benefit ratio for hepatitis A vaccine as large as 2.7 and a ratio for human normal immunoglobulin of 1. Allowances were

made for unrecorded and multiple doses. Doses and not phials were used.

Use of incidences specific for destinations would undoubtedly enhance the model and help target prophylaxis. We are finalising such data for publication, using rates specific for destinations by risk groups.

We share the desire to improve the quality of published economic evaluations. The economic evaluation used in this study was couched in the framework of cost-benefit analysis and included a nested cost-effectiveness study of alternative regimens. The evaluation of benefits in monetary terms is a problem that haunts all cost-benefit analyses. In this study, apart from the willingness to pay (taken as an approximation of value of life), we measured benefits as costs avoided.⁴ The measurement of willingness to pay suggested by Martin E Backhouse—aspects of which we intend to explore—may not provide robust estimates in this area of infection control. Unfortunately, the individualistic basis of willingness to pay is found wanting in situations that have complex collective implications.^{5,6}

We did not imply, as Walker suggested, that travellers should not receive immunoprophylaxis; we critically examined NHS policies that subsidise certain prophylaxis for travellers, which may be an inefficient way to spend resources in a cash strapped health service.

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Aircraft cabin pressure and parkinsonian symptoms

EDITOR,—Jeremy Brown's observation that we should question why decreased air pressure may improve parkinsonian symptoms is appropriate,¹ but his statement that oxygen concentration in aircraft cabins ranges from 15.2% to 17.6% is incorrect. The cabin atmosphere obeys the physical gas laws, and Dalton's law of partial pressures ensures that the oxygen concentration is a constant 21%. At 2440 m altitude the partial pressure of oxygen is 21% of 76 kPa—that is, 16 kPa—compared with 21 kPa at sea level.²

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Out of hours visits

EDITOR,—In his editorial on home visits out of hours Brian Hurwitz points out that "no studies have documented a difference in medical outcome between night visits performed by general practitioners and those performed by deputies, though

this topic is poorly researched.²¹ The satisfaction of patients is one outcome that should be taken into account when different methods of providing out of hours care are being planned and evaluated. It is therefore important that sound measures of satisfaction are used.

The five studies cited by Hurwitz produced conflicting results and are difficult to interpret because of the different methods used. In four of the studies interviews were used to collect the views of patients²²⁻²⁵; in the fifth study a postal questionnaire was used.⁶ The interval between the patient receiving a visit and information about satisfaction being sought varied: the questionnaire was posted within three working days of the visit in one study and up to five years after in another. In only one study were patients who received a visit from a deputising service included.⁶ Patients were asked for their opinions about different aspects of care in the studies: the length of the wait for the doctor to visit in one, their preference for their own doctor or a deputising service in another, and both overall satisfaction and satisfaction with specific aspects of care in others. The reliability or validity of the measures used was not usually reported.

Future studies of patients' satisfaction with the provision of out of hours care should seek opinions about all relevant aspects, including overall satisfaction. Studies should be clearly concerned either with a specific event such as a recent home visit or with views about the organisation of services. The possibility that satisfaction could change because of experiences after a home visit should be acknowledged, and researchers should attempt to assess the reliability and validity of the instruments they use. Unless patients' satisfaction is measured with valid and reliable instruments we will never discover with certainty whether out of hours care is organised to meet patients' needs.

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Stress in NHS consultants

EDITOR,—Richard P Caplan highlights the fact that few studies have examined stress and psychological symptoms in senior doctors.¹ We conducted a cross sectional survey of 500 randomly selected NHS consultants in Scotland, of whom 375 (75%) responded; this response rate compares well with the 77% response to the postal questionnaire that Caplan sent to consultants. We applied a wider range of questionnaires² but report here our results with the general health questionnaire-28, in a manner comparable to Caplan's.

Of the 374 respondents whose responses to the general health questionnaire could be scored for caseness (for possible clinically important psychiatric distress), 80 (21%) scored higher than 5; the mean (SD) score was 3.0 (4.6). Eighteen consultants (5%) had suicidal thoughts as derived from the severe depression section of the questionnaire. Our results show a prevalence of caseness roughly half that shown by Caplan. This difference could be partly explained by selection bias in Caplan's study since 17% of his respondents had

Score on general health questionnaire-28 and prevalence of suicidal thoughts by specialty

	Medical specialty							
	Medicine	Surgery	Anaesthetics	Pathology/ laboratory	Obstetrics and gynaecology	Public health	Psychiatry	Radiology
General health questionnaire-28:								
No (%) with score > 5	12 (15.6)	11 (15.3)	14 (34.1)	6 (18.2)	10 (27.8)	12 (31.6)	9 (23.1)	6 (15.8)
Median (range) score	1 (0-16)	0 (0-22)	2 (0-22)	1 (0-13)	0 (0-13)	1 (0-21)	1 (0-22)	1 (0-23)
No (%) with suicidal thoughts	1 (1.3)	2 (2.8)	5 (12.2)	2 (6.1)	1 (2.8)	2 (5.3)	4 (10.3)	1 (2.6)
Total	77	72	41	33	36	38	39	38

effectively self selected themselves by accepting an invitation to attend a presentation by him on stress in the workplace. Our study was limited to consultants but permitted further analysis by specialty groups. The table shows differences in caseness and in the scores on the general health questionnaire (expressed as medians because of the skewed distribution) as well as the prevalence of suicidal thoughts. As in Caplan's categorisation for the same variables, the difference among the groups was not significant, although the highest rates seemed to be among anaesthetists.

As well as measuring outcomes we used qualitative and quantitative methods to derive a specialist doctors stress inventory to measure self reported stressors specific to health service consultants (R M Agius *et al*, unpublished findings). The score on this inventory showed highly significant correlations ($P < 0.0005$) with scores on the general health questionnaire ($r_s = 0.26$), and with suicidal thoughts ($r_s = 0.18$). Only part of the variance in psychological distress, however, was accounted for by work stressors, and underlying personality probably plays an important part.³ Further study is needed to elucidate the complex transaction between stress in the workplace, underlying personality, and adverse outcome in consultant doctors.

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Anomalous statistical notes

EDITOR,—An interesting anomaly has arisen in the series of statistic notes. Seven articles have been published so far, on 11 June 1994, 9 July, 23 July, 24 September, 15 October, 29 October, and 21 January 1995. The first and second articles were numbered the first and second articles. The third article was numbered the eighth, the fourth was numbered the seventh, and the fifth was numbered the eighth again. The sixth and seventh articles were numbered the ninth and tenth respectively. There is a good correlation between the actual number of the article and the published number, though this does not reach significance ($P = 0.06$, figure). It is difficult to be sure what the number of the next article is likely to be, although there is a 95% chance that it will lie between 8 and 16.

Spearman's $\rho = 0.94$
Kendall's $\tau = 0.857$
Approximate probability of $H(0) = 0.06$

Predicted published number given to articles in series, with estimated 95% confidence intervals for regression line (---) and single points (-----)

What really taxes me is where the third, fourth, fifth, and sixth articles have gone to. Maybe the answer is not significant anyway.

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**Actually, we were not quite as bad as Dr James thinks. Because we published more notes than he counted (the extras were on 2 April, 4 June, and 1 July) we misnumbered only two (the fifth and the sixth, wrongly numbered the seventh and eighth). But we didn't want to spoil the joke. Sorry.—EDITOR

Correction

Severe chickenpox during treatment with corticosteroids

Owing to a typesetting error the steroid dosage mentioned in the subheading of this letter by Isobel Burnett (4 February, p 327) is incorrect. The subheading should read: "Immunoglobulin should be given if steroid dosage was ≥ 0.5 mg/kg/day in preceding three months."

Advice to authors

We prefer short letters that relate to a recently published article and we are unlikely to publish letters longer than 400 words and containing over five references. Letters may be shortened. Your letters should be typed with double spacing and include a word count. All authors need to sign the letter and provide one current appointment and address. We encourage you to declare any conflict of interest. Please enclose a stamped addressed envelope if you require an acknowledgment.