Inviting infrequent attenders to attend for a health check: costs and benefits

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SUMMARY. A total of 114 patients who had not attended their general practitioner in the previous three years were identified by searching a sample of 1488 records (12.8% of the practice list). An invitation for a health check was sent, in keeping with the requirements of the new general practitioner contract. Seventeen out of 94 patients invited (18%) attended. Surgery staff spent 28 hours and the practice doctors spent 15 hours on arranging and carrying out the investigation. The group responding to the invitation were in general healthy; the only new finding of remediable disease was mild hypertension in one man. The smoking rate and alcohol consumption rate were low. Of 13 patients who needed tetanus immunizatinon, five refused it and five failed to return. All three women who were overdue for a cervical smear failed to return to have it done. It is concluded that screening infrequent attenders is not an efficient use of medical time.

Introduction

THIS is currently a period of re-evaluation of the services offered in general practice. The government's proposals for a new contract for general practitioners require a medical examination and health prevention advice to be offered to all patients aged 16–74 years who have not consulted in the previous three years.[1] This is not an optional extra service attracting additional payment; it is to be a basic condition of service and failure to attend to it could lead to a service complaint against the practitioner. Until now, most general practitioners, even those offering a screening service, have not actively approached healthy patients who rarely attend. The proposal therefore presents new practical problems and has considerable implications for workload.

This paper reports a study in one practice in which a sample of infrequent attenders were invited to attend for a health check. The aims were to examine the attendance rate, to record the problems identified at screening and to analyse the costs in both financial and workload terms of setting up such a screening programme.

Method

The practice is a suburban training practice with 11 673 patients and seven partners (two with less than full commitment). Patients are generally compliant and make good use of services offered, as shown by an infant immunization rate of 97% and a cervical cytology rate of at least 76% of those at risk.

Patients who had not attended for three years or more were identified by a receptionist who examined an alphabetical sample of files and extracted the appropriate ones. It was realized that distress might be caused by an inappropriate invitation being sent, for example to a deceased patient whose file had not been processed. A doctor therefore checked the extracted files to minimize the risk of inappropriate invitations. At the same time the doctor identified patients who were known no longer to live at the address shown. A letter of invitation from the doctor was sent to all patients whose address was known explaining: 'The new government proposals for general practice state that each patient who has not been seen by a doctor for three years should be offered a medical examination'. They were offered an appointment and asked to contact the receptionist if they wished an alternative one or if they did not wish to be seen. All the above activities were timed.

When patients attended they were seen by the general practitioner. Height and weight were measured and blood pressure checked. Urine was tested for proteinuria and glycosuria. The doctor enquired about symptoms and carried out any examinations which were indicated. Questions were asked about occupation, marital status, family, smoking, alcohol, diet and exercise. Appropriate advice and literature was offered where necessary.

Results

A total of 1488 files were checked (12.8% of the practice list) and 114 patients who had not attended in the last three years were identified. Extrapolating this would give an estimated total of 891 infrequent attenders within the whole practice. The mean age of the sample was 36.9 years. Of the 114 patients identified 20 were known to have moved from the address in the records, thus 94 invitations were sent out. Seventeen patients attended for the check-up: 10 men (14% of 74 identified) and seven women (18% of 40 identified). The mean age of attenders was 44.6 years.

Of the 77 patients who were sent invitations and did not attend, three were not found at the given address, 28 cancelled the appointment and nothing was heard from 45 patients. The other patient was admitted to hospital with a myocardial infarction before the appointment. Of the 28 who cancelled eight were working or studying away from home, four found the appointment offered unsuitable but did not arrange an alternative appointment, and 16 stated that they did not wish or did not require the examination offered.

Findings of medical examination

The medical examination found few abnormalities among the patients. Three patients were hypertensive but for two of them this was already known (one of them attended a hospital clinic and the other had defaulted on treatment and surgery attendance). These three patients were three of the five overweight patients who were given dietary advice. Only three patients smoked cigarettes and one smoked a pipe. All were advised to stop smoking. Only one patient admitted taking more than 20 units of alcohol per week. She was the hypertensive patient who was obese and smoked most. She also required tetanus protection and had not had a cervical smear. Her records showed that she attended hospital regularly where she had previously been advised on a number of occasions about smoking and alcohol. Excluding this patient, the mean score for alcohol consumption of the sample was low at 4.1 units per week (range 0–14). Thirteen patients required tetanus immunization; three received it,

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five refused and five said they would return later. Three of the women patients required a cervical smear and were advised to return. Three weeks later none of the patients had returned either for tetanus protection or cervical cytology. No abnormalities were found on testing a urine sample but a number of patients were unable to produce a specimen and did not return with one as advised (it would have been better if the letter of invitation had told them to bring a specimen). No other significant abnormalities requiring treatment or further examination were found on physical examination.

Costs

The cost to the practice in time together with the estimated financial cost is shown in Table 1. The total time of receptionists and doctors for work involving 12.8% of the practice patients was 43 hours. The total time to screen the whole of the infrequent attenders in the practice (assuming a turn-up rate of 18%) would then be 336 hours. The estimated cost of staff time (making an arbitary allowance of £15 per hour for doctor time was £318). The costs of stationery, photocopying and postage were £33, giving a total cost of £351 or around £2740 for the whole practice. Some of these costs would be borne by the health board and the remainder by the doctor.

Discussion

The government's new contract for general practitioners[1] will result in many changes in general practice, all of which will have implications for workload. In a finite working week, and while maintaining services to the chronic sick and the acutely ill, doctors will have to make choices about which additional services they can offer. Studies of the benefit of screening of infrequent attenders have not previously been carried out. Indeed the Scottish Home and Health Department has stated that the government's proposals are not based on previous research as to the effectiveness of screening well patients, but is a response to strong public support for the proposal during the consultation period on the primary care discussion document (personal communication, 1989).

Table 1. Staff time and financial cost of screening patients.

Staff and task	Time (hours)	Estimated cost to screen 17 patients (£)	Estimated cost to screen all infrequent attenders at a turn-up rate of 18% (£)
Receptionist			
Original search of records	14		
Subsequent phone calls, patient contact, file searching	3.5		
Addressing letters	4		
Total	21.5	71[a]	554
Secretary			
Typing, photocopying, addressing letters	6.5	22[b]	173
Doctor			
Reviewing files	3		
Examination time	12		
Total	15	225[c]	1759
All staff	43	318	2485

[a]At £3.30 per hour. [b]At £3.40 per hour. [c]At £15.00 per hour.

The value of population screening as opposed to at-risk screening is yet to be established. The controlled study of the south east London screening study group involved screening 3297 patients aged 40–64 years from two group practices in London.[2] Multiphasic screening, involving chest x-ray, electrocardiography and other laboratory tests, was carried out and repeated two years later. Appropriate management of abnormal findings was carried out by general practitioners. No statistical differences in symptoms, disability, hospital admission rates, general practice consultation rates, sickness absence rates or mortality rates were found five years later between screening and control groups. The controlled study of Olsen, Kane and Proctor in Salt Lake City also showed no significant differences between screened and control groups other than that the screened group spent more days in hospital.[3] The Canadian task force suggested that the only laboratory investigation of proven value in symptom-free subjects was mammography in women aged 50–59 years.[4]

It has been suggested that screening can have adverse effects.[5-8] A study by Gibson showed that steel workers who were told that they were hypertensive at screening had an increase of sickness absenteeism equivalent to a whole week as compared to their non-labelled co-workers in the year after diagnosis.[6] Subsequent studies have confirmed that, in general, illness absenteeism is higher among aware hypertensive patients than either normotensive or non-aware hypertensives.[7] Sackett also introduces the concept of 'healthy time', in that diagnosis of a problem can replace healthy years with sickness years so that the well person becomes a patient. He suggests that intervention is not appropriate unless we can considerably alter sickness outcome.[8]

The present paper does not show that a simple health check of infrequent attenders at surgery justifies the time expended. The group of patients responding to the invitation was in general a healthy group. The smoking rate and alcohol consumption rate were low. Even after making the effort to attend surgery a number were unwilling to accept advice, for example to have their urine tested or to have a tetanus immunization. No significant remediable problems were found except for mild hypertension in one overweight man. Of course, the opportunity to pass on advice about health prevention to patients is likely to be beneficial but this benefit must be balanced against the time spent by doctors and staff. Although the health check proved to take 15–25 minutes it was thought that not all patients would turn up and only one hour of doctor time was allocated for every eight patients. In the event this proved adequate. It could be argued that the identification of patients who have not been seen for three years or more would be much quicker by computer searching. However, this requires accurate recording of every consultation, and considerable receptionist and keyboard time every day, and obviously must be done prospectively. It took a receptionist one and a half hours merely to key in the names of those consulting on a particular day, and therefore the practice computer (G-Pass, single user) was not available for any other use during that time. This use of computer and receptionist on a continuing daily basis would be unacceptable to most practices. A total of 43 hours to see 17 patients (or 2.5 hours per patient) cannot be justified by the results and a procedure where only 18% of 94 patients invited for examination actually attend is obviously not meeting a perceived need. It must be concluded that to carry out this process on the whole practice, or the whole nation as suggested, would be wasteful of doctor and staff time.

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