PRACTICE OBSERVED

Practice Research

Raised intraocular pressure: an alternative method of referral

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Abstract

To assess delay in referring patients with suspected glaucoma two methods were studied in a randomised trial: direct referral from optician to ophthalmologist and referral through the patient's general practitioner. Direct referral was reliable for all 49 patients involved, whereas, of the 44 patients referred through their general practitioner, seven waited over three weeks for referral.

Introduction

Two thirds of patients who are treated in hospital for glaucoma are initially suspected of having glaucoma by opticians.¹ Patients may become resistant to treatment if there are delays. In an important minority of patients the hospital consultation is delayed because referral is made through the general practitioner. We compared some outcomes of the present system of referral against the alternative of direct referral from the optician to the ophthalmologist.

Methods and results

For this randomised trial between two methods of referral 29 opticians recruited 93 patients recruited with 17 general practitioners in whom one or both eyes showed one or more of the following: (i) cup to disc ratio above

0.6; (ii) interval inequality of cup to disc ratio of 0.2 or more; (iii) the average of at least three non-contact tonometry readings of 23 mm Hg or more; and (iv) any loss in field of vision.

Patients were recruited over five months. Forty nine patients were randomly allocated to direct referral from the optician to the ophthalmologist and 44 to traditional referral through the general practitioner. Four patients did not keep their hospital appointments (two from each of the selected pathways of referral). By the time the results were analysed (eight months) 46% of patients had been diagnosed as having glaucoma, 32% remained under observation, and 12% had been discharged.

The table shows the element of delay in referral created by the intervening step of referral by the general practitioner. In seven of 44 patients the delay was three weeks or more. In four of these the patient

Delay in referral of patients on the pathway from optician to general practitioner in ophthalmology

Referral letter written by general practitioner	No. of patients
No delay in referral	17 (44%)
Delay in referral	27 (61%)
1 week	1
2 weeks	1
3 weeks	1
4 weeks	1
5 weeks	1
6 weeks	1
7 weeks	1
8 weeks	1
9 weeks	1
10 weeks	1
11 weeks	1
12 weeks	1
13 weeks	1
14 weeks	1
15 weeks	1
16 weeks	1
17 weeks	1
18 weeks	1
19 weeks	1
20 weeks	1
21 weeks	1
22 weeks	1
23 weeks	1
24 weeks	1
25 weeks	1
26 weeks	1
27 weeks	1
28 weeks	1
29 weeks	1
30 weeks	1
31 weeks	1
32 weeks	1
33 weeks	1
34 weeks	1
35 weeks	1
36 weeks	1
37 weeks	1
38 weeks	1
39 weeks	1
40 weeks	1
41 weeks	1
42 weeks	1
43 weeks	1
44 weeks	1
45 weeks	1
46 weeks	1
47 weeks	1
48 weeks	1
49 weeks	1
50 weeks	1
51 weeks	1
52 weeks	1
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54 weeks	1
55 weeks	1
56 weeks	1
57 weeks	1
58 weeks	1
59 weeks	1
60 weeks	1
61 weeks	1
62 weeks	1
63 weeks	1
64 weeks	1
65 weeks	1
66 weeks	1
67 weeks	1
68 weeks	1
69 weeks	1
70 weeks	1
71 weeks	1
72 weeks	1
73 weeks	1
74 weeks	1
75 weeks	1
76 weeks	1
77 weeks	1
78 weeks	1
79 weeks	1
80 weeks	1
81 weeks	1
82 weeks	1
83 weeks	1
84 weeks	1
85 weeks	1
86 weeks	1
87 weeks	1
88 weeks	1
89 weeks	1
90 weeks	1
91 weeks	1
92 weeks	1
93 weeks	1
94 weeks	1
95 weeks	1
96 weeks	1
97 weeks	1
98 weeks	1
99 weeks	1
100 weeks	1

would not have reached hospital at all had the research not drawn attention to errors resulting from the present system—for two patients no letter was written, and two letters were lost. In one patient with glaucoma the delay was six weeks. Only half of the general practitioners' referral letters added information to the optician's reports. The direct referral from optician to ophthalmologist proved universally reliable and created no administrative difficulty apart from concentrating the flow of patients on one particular consultant clinic initially.

Delays in hospital.—The average time from the arrival of the referral document at hospital to the patient seeing the ophthalmologist was 11 weeks. It was not possible to identify reliably any impact of direct referral on this element of total delay.

Other findings.—For the 31% of patients where the general practitioner

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marked the referral letter as urgent a much quicker appointment was given, all such patients being seen within two months of the original visit to the optician. Only 18% of these patients had glaucoma compared with 58% of those whose letters were not marked urgent.

Discussion

Referral to specialists is normally considered possible only through a general practitioner. In a few circumstances, such as dental problems, accident and emergency work, and sexually transmitted diseases, this principle does not necessarily apply. Patients who have potentially serious visual problems, such as glaucoma, should perhaps be considered a further special exception to the general rule. If it had been seen of 44 patients in this study would have been saved three or more weeks of unnecessary delay.

Given the reasonable efficiency of opticians' screening, and in the absence of the general practitioner contributing any refinement to its accuracy, large numbers of extra or unreasonable referrals are unlikely to be made.

Can general practitioners influence exercise habits? Controlled trial

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Abstract

A health promotion campaign in the community organised by the general practitioner was evaluated by the use of a questionnaire before and after the campaign. Both in the village where the campaign was based and in a control village. There was a general increase in the amount of exercise that people in both villages took. The results showed that having received a questionnaire, and been subject to the campaign, more people took exercise regularly.

Introduction

A recent report by the Royal College of Physicians stated that "all adults should remain physically active throughout life, and there is a need to improve community facilities for sports". There is reasonable evidence that regular physical activity will reduce the incidence of coronary heart disease.^{1,2} General practitioners are usually placed to promote health education, and patients think that general practitioners should be interested in their patients' fitness, although only a few patients think that their doctors are actually interested.³ A World Health Organisation report pointed out that it is not good enough simply to tell people what is good for them.⁴ Health promotion must concern the community and include

a strong element of social activity to motivate people. Also adequate facilities must exist. This paper describes an evaluation of a health promotion campaign run by a general practitioner.

Method

Brookhurst is a village in the New Forest with a population of about 3000. In 1983 a village hall was opened but it had no facilities for sport, and so the local general practitioner (D.B.) competed in the 1982 Wrexham Marathon to raise money for sports equipment. Further money was required to purchase the freehold of the hall, and, encouraged by the previous success, a committee was formed, led by the local general practitioner, to obtain sponsorship for the hall and to promote the hall's use.

In addition to raising money the principal aims of the committee were to promote the idea that regular exercise is important for a healthy life, to encourage more use of the exercise and sporting facilities of the village hall, and, particularly, to encourage youth organisations and people over 50 to take more exercise. All households in Brookhurst were circulated with details of the sponsorship scheme in March 1983, and throughout the year there were press releases in local newspapers and publicity on local television and radio to help raise funds and to promote exercise.

A controlled study was set up to evaluate whether this activity actually led to people taking more exercise. The village of Sway—of similar size, with a similar age, sex, and social class distribution to Brookhurst, and about three miles away—was chosen as a control. Both villages were in part covered by the same general practice, and both would receive the same promotional information on exercise from the press, radio, and television. In contrast to Brookhurst, however, Sway already had a village hall.

Throughout the study there were several fund raising activities in Brookhurst, but not in Sway; see appendix. The general practitioner was resident in Brookhurst and could be seen on running most days by its inhabitants.

Immediately before the London Marathon in April 1983 a questionnaire was sent to a 1:10 systematic sample from the electoral rolls of both Brookhurst and Sway. Two follow up surveys were conducted in April 1984, the first a new 1:10 systematic sample of both villages in which people who had been surveyed first time were excluded, and the second a survey of all those who responded in 1983. The figure shows the study design, sample sizes, and response rates.

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Study design showing the number of questionnaires sent and the response rate

All questionnaires were sent from and returned to Southampton General Hospital and in no way appeared to be connected with the local general practitioner. Thus it was hoped to avoid bias in the way people completed the questionnaire. Four main questions were asked (with abbreviations used in this paper in parentheses):

- (1) How often do you walk for relaxation? (walking).
- (2) How often do you engage in exercise that causes you to sweat and become breathless? (For example, brisk walking, jogging, running, swimming, cycling, skipping, squash, vigorous team sports/breathless).
- (3) How often do you engage in other sporting or keep fit activities? (For example, golf, bowls, yoga, sailing, walking, horse-riding (other activities)).
- (4) How often do you engage in other active hobbies? (For example, dancing, woodwork, volunteer work, work around the house/hobbies).

The answers permitted, with their respective scores, were: three or more times a week (5); once or twice a week (4); once a month (3); rarely (2); and never (1). Thus a high score indicates a high participation rate. The questionnaire and a reply paid envelope were sent to each subject in the sample, together with a covering letter on university notepaper. Non-responders were not pursued.

To compare the two villages the scores were analysed as if they were samples from a continuous distribution. To allow for differences in the age and sex distributions of the samples, a multiple regression analysis was carried out including these two variables as confounding variables, using the statistical package GENSTAT.

Results

The response rates were similar to those of other studies despite the lack of follow up of non-responders. The response rates were strikingly similar in Brookhurst and Sway in both 1983 and 1984. As expected, the response rate in 1984 among those who had already replied in 1983 was much higher. Brookhurst and Sway have relatively elderly populations: on average 26% of the total sample were aged 65 or over, and 20% were under 35. Table 1 gives the percentage response for each question.

Analysis of the 1983 data showed that people in Brookhurst were already taking more exercise than those in Sway. In general men over 50 were the most likely to take exercise that made them sweat or breathless at

TABLE 1—Percentages for each response from systematic samples in 1983 and 1984

Question set	Never	Rarely	Once a month	Once a week	Three times a week
1. Walking					
Walking 1983	4	10	6	11	65
Walking 1984	4	10	17	22	52
Survey 1983	11	17	8	26	48
Survey 1984	10	9	8	28	45
2. Jogging					
Jogging 1983	30	21	10	22	17
Jogging 1984	20	14	8	22	36
Survey 1983	34	19	8	22	16
Survey 1984	27	17	10	24	22
3. Other activities					
Other activities 1983	17	19	12	11	15
Other activities 1984	17	17	16	30	22
Survey 1983	20	19	11	11	15
Survey 1984	27	15	16	29	15
4. Modes					
Modes 1983	8	4	7	28	54
Modes 1984	8	4	6	36	46
Survey 1983	8	7	5	30	50
Survey 1984	8	4	6	23	59