Ideal average times for sight tests

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Although the rate of increase in sight tests by ophthalmic medical practitioners has not matched that amongst optometrists (see Table 1), their contribution should not be overlooked. Nationally, one in eight of General Ophthalmic Service sight tests is carried out by OMPs. There is considerable variation nationwide (French and French-Teeling, 1987). In some areas of the UK the OMP proportion is zero while in the Borders region of Scotland it exceeds 50 per cent. For most optometrists, the sight test is their main activity whilst for most OMPs it represents part-time work. Despite this, as far as the consumer and health bodies are concerned, there is no difference, with the exception of the payment differential. At the time of writing the fee is £ 10.00 for an OO and £6.16 for an OMP.

In the UK the number of OMPs on FPC lists has changed little. This relative stability may or may not continue. It is interesting to note that in the United States the number of ophthalmologists is projected to increase from 4.3 per 100,000 population in 1985 to 7.4 per 100,000 in the year 2000 (Barresi, 1987). There is controversy over whether this will represent shortage or surplus (Peters, 1987). In the UK, according to the Faculty of Ophthalmologists, there are today 460 consultant ophthalmologists or 0.8 per 100,000, whilst according to 1985 FPC lists, the number of OMPs is 988, or 1.7 per 100,000. No-one appears to know the total number of UK ophthalmologists.

In the latter half of 1986, all optometrists on the GOC Register were sent a questionnaire. Several of the questions concerned the duration of GOS sight test times and the results have been discussed in French (1987a). Age, sex and type of employment appeared to have relatively little effect. Also in 1986, all OMPs on FPC lists were sent a questionnaire on the need for sight tests (French, 1987b). These same practitioners were sent a further questionnaire in early 1987. This included questions on age, sex, annual number of sight tests and the ideal duration of the GOS sight test.

French and Loran (1983) reported a DHSS study which showed that for those OMPs on English and Welsh FPC lists in 1981, 14 per November 21,1987 Optometry Today

Year	by OOs (per cent)	by OMPs (per cent)	total (per cent)
1966	17	1.7	1.7
1967	3.8	3.5	3.7
1968	2.9	1.9	2.7
1969	1.0	2.6	1.2
1970	13	-1.5	0.8
1971	12	0.3	1.1
1972	0.9	6.3	0.4
1973	6.2	3.4	5.7
1974	43	-4.4	2.7
1975	51	4.6	5.0
1976	47	1.4	4.2
1977	-3.8	-5.2	-4.1
1978	67	-1.1	5.4
1979	3.8	2.0	3.5
1980	29	-1.4	2.3
1981	21	-2.3	1.5
1982	25	4.7	2.8
1983	59	-3.1	4.5
1984	79	4.6	7.5
1985	6.2	0.1	5.4
1986	4.4	-3.6	3.4
1965-85	3.0		2.6
1700 00	(3.2)		(2.9)

Positive values are increases and negative values decreases. The figures for 1986 are estimated — based upon incomplete UK data. The main 1965-85 values are the constant percentage increases for the best-fit exponential curves. The figures in parentheses represent the simple annual increase between 1965 and 1985 for the actual data. These are higher than the best-fit figures because of the imperfect nature of the constant growth curve with more rapid growth in recent years. The estimation of OO and OMP sight test numbers is currently based upon two per cent samples.

Table 2: Age distribution of OMPs on FPC lists and in sample					
Age	1	Male		Female	
	1981 (per cent)	1986 (per cent)	1981 (per cent)	1986 (per cent)	
29	1	0	2	0	
30-39	19	18	27	23	
40-49	31	22	28	38	
50-59	20	28	25	28	
60-64	6	11	9	4	
65-69	10	6	6	2	
70	12	16	2	5	
all	100	100	100	100	
n=	754	225	126	44	

The 1981 data were obtained from the DHSS (see French and Loran, 1983) and indicate 14 per cent of OMPs on the FPC lists were women. The 1986 data reflect the results from the OMP survey (28 per cent response rate) carried out in mid-1987 on the 1986 OMP FPC list — overall size estimated at 988 — 16 per cent of the sample were women.

cent were women and 7 per cent also acted as general medical practitioners. There were very few OMPs under the age of 30, the largest group being those in their 40s, but there were quite a few over the age of 70 (see Table 2). Twenty-one per cent of OMPs were past the normal age of retirement for other professions — a little higher than the 15 per cent amongst OOs on the GOC Register (proportion for OOs on FPC lists not known). The age distribution for the respondents in the 1987 OMP survey is also given in Table 2 and it can be seen to differ a little from the 1981 one.

If one divides the aggregate total of sight tests reported by this questionnaire by the 29 per cent proportion of responders based upon an estimated FPC total of 988, one obtains a total of 1.46 million which is 5 per cent above the estimated number of sight tests carried out by OMPs in 1986. This suggests that OMPs carrying out relatively few sight tests were slightly less likely to respond to this survey, but the effect does not appear very great and the discrepancy is within sampling error.

There are those who consider that the length of the sight test is of no interest. For example, Charman and Jennings (1987) argue that 'At best, all that can be said is that these figures are not very helpful and that it might be guessed that an "examination" may mean different things to different examiners'.



Fig 1: Proportions of practitioners reporting ideal average GOS sight test times. (See footnotes to Table 2 for details of questions asked)

This is one reason why the phrase 'GOS sight test' was carefully chosen in place of 'sight test' or 'sight test and eye examination' or 'routine optometric examination' or 'examination' in the present studies. If practitioners are interpreting the 'GOS sight test' in radically different ways then it is surely of interest, and whether this be due to economic, educational, health care or other reasons is worthy of investigation. The sight test time is more than of academic interest and has

Minutes	Optometrists		Ophthalmic Medical Practitioners	
	number	per cent	number	per cent
0-5	0	0	0	0
6-10	4	0	20	8
11-15	50	3	147	56
16-20	617	31	75	29
21-25	413	21	15	6
26-30	734	37	5	2
31-35	58	3	0	0
36-40	46	2	0	0
41-45	33	2	2	1
46-50	1	0	0	0
51-55	0	0	0	0
56-60	3	0	0	0
total	1959	- 100	264	100
5 min multiples	1946	99	233	88
12 min	0	0	17	6
mean	26 min			17 min
median	25 min			15 min
25 percentile	20 min			15 min
75 percentile	30 min			20 min

Both distributions are for the raw data and the optometry data in particular reflect a response bias towards more active practitioners.

For optometrists the question posed was:

'Ideally, in the interests of the patient, how much time on average ought an OO set aside for a sight test alone? If in doubt... how much time ought you set aside?'

Ophthalmic Medical Practitioners were asked:

'Obviously, some patients will require more time than others, but in your experience *ideally*, in the interests of the patient, how much time *on average* ought an OMP set aside for a *General Ophthalmic Service sight test alone*? If in doubt, how much time *do you* set aside *on average*?¹

Please note that apart from the small differences in wording the OO and OMP questions also appeared in different questionnaires and therefore in slightly different contexts. Note, too, that the sight test fee (May 1, 1987) for optometrists is £9.30 plus supplement of 70p, while that for OMPs (April 1, 1987) is £6.16. 742

important implications for the potential earning rates amongst OOs and OMPs. One might expect sight test times to shorten over the years with increased efficiency and modern technology, but the fear has been expressed that economic pressures could lead to unwarranted shortening (Dunn, 1986).

It is commonly believed that an OMP's GOS sight test duration is shorter than an OO's and this status quo appears to be accepted without question by both parties. There appears to have been no systematic examination of this interesting difference. Both groups of practitioners are apparently carrying out the same activity and both need to refer patients to general medical practitioners. However, belief is one thing and the facts are another. The difference could easily be less than is commonly assumed. This second survey asked OMPs to report what they considered to be the ideal time for an average GOS sight test (not their actual average).

A similar question had been posed in the OO survey where a clear distinction had been made between a sight test alone and a sight test plus dispensing. Each questionnaire had clearly stated that the questions concerned the General Ophthalmic Service sight test and not a Hospital Eye Service or Community Health Service sight test. The distribution of the OO and OMP replies is given in Table 3 and Figure 1.

The optometric data is essentially bimodal with modes at 20 and 30 minutes and a median of 25 minutes, whilst the OMP data is more normal, slightly skewed, with a median of 15 minutes. On average, an OMP's 'ideal time' is approximately two-thirds of an OO's. This data (like any data) should be treated with caution. Both samples of respondents appear to be biased towards the more active practitioner who tends to favour shorter test times. On the other hand this is more true of the data from optometrists where the raw, uncorrected data overestimated national sight tests by 18 per cent.

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Practitioners	Sight test		
tests per annum	median	mean	sample size
OMPs			
0- 199	20	19.1	48
200- 699	15	17.9	54
700-1199	15	16.3	50
1200-2499	15	15.6	62
2500-	15	15.4	50
OOs			
0- 999	30	27.1	303
1000-1799	30	27.4	412
1800-2299	25	26.6	405
2300-2879	25	26.1	411
2900-	20	23.3	413

Because of some departures from normality, the median statistic is preferable to the arithmetic mean as a measure of central tendency. Both OOs and OMPs have been divided into five roughly equal groups according to the numbers of sight tests they report carrying out within one year

The median test reveals a statistically significant difference in the length of ideal sight tests as a function of the number of tests carried out per annum when both practitioners are divided five ways ($x^2 = 12.2$, df=4, P<0.05 for OMPs; x²⁼90.4, df=4, P<0.0001 for OOs). Amongst OMPs the median ideal sight test time varies from 15 to 20 minutes and amongst OOs 20 to 30 minutes (see Table 4).

If you divide the sight test fee by the corresponding average ideal sight test times you obtain (i) \pounds 10 — 26.0 minutes = 3 8p per minute for OOs. and (ii) $\pounds 6.16 - 16.8$ minutes = 37p per minute for OMPs. Thus, it is curious that on average OOs and OMPs would be paid virtually the same rate for doing the same job. This, although eminently equitable, would surely be quite fortuitous as the rationale for the fee differential concerns practice overheads.

A couple of OMPs commented when completing their questionnaire on the unfairness, as they saw it, of the differential sight test fee and spoke enviously of the position of OOs. It was argued that if their sight tests took longer than a certain time they then became uneconomic. Twenty minutes was seen as uneconomic in one case while in another it was anything fewer than five

patients per hour. At least one respondent thought that economic pressures did lead to an (undesirable) shortening of test times. Others reported that they had recently withdrawn or were about to withdraw from doing GOS sight tests because of the low level of the OMP sight test fee.

One OMP reported that the Faculty of Ophthalmologists recommends a minimum of 12 minutes for Hospital Eye Service outpatients' attendance. Notwithstanding the specific reference to GOS sight tests in the questionnaire, this might have been a factor in the thinking of a few OMPs (6 per cent) who quoted 12 minutes for an average sight test a duration not mentioned by any of the 1,959 optometrists in their survey.

It may be that OMPs as a group interpret the GOS sight test differently to OOs. This would be in line with how Charman and Jennings (1987) see things. It may be that OMPs compared with OOs tend to omit certain tests or see them as 'extras', but questions which might have illuminated this point were not asked. It is even conceivable that there is a systematic difference to the treatment of 'paperwork'.

It may be that OMPs tend to see a different

group of patients to OOs. One practitioner reported 20 minutes as an average in an area of old people and 15 minutes in a younger, urban area.

The difference may be a sign of a different perspective on health care or visual efficiency. It may reflect economic pressures or it could be a result of education and training.

It should not automatically be assumed that one group is 'right' and the other 'wrong'. It should not be assumed that OMPs are correct because of their medical background or OOs are correct because of their superior optometric training. Whatever the underlying reasons, the difference would surely be a source of great puzzlement to the man in the street.

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