

General practitioners' confidence in diagnosing and managing eye conditions: a survey in south Devon

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SUMMARY. *In order to open dialogue aimed at increasing eye care in general practice and reduce waiting times for ophthalmic outpatient appointments general practitioners in the Torbay health district were asked about their levels of confidence in ophthalmology as a subject, and in the diagnosis and management of specific eye conditions. They were also asked about ophthalmic equipment available to them, their management policies for 34 specific eye conditions, and their perceived need for further training in this subject. A total of 75% of the general practitioners responded to the questionnaire. Despite more than half of the general practitioners indicating that they did not feel confident with ophthalmology generally, most expressed confidence in diagnosing and managing common eye conditions. Basic equipment for examining the eye was available to most doctors. Referral policies varied considerably, and these have resource implications. Seventy eight per cent of respondents were prepared to take on more eye care in general practice, and over 80% of general practitioners requested informal teaching sessions in ophthalmology. Support must be forthcoming if general practitioners are to provide eye care in general practice.*

Keywords: *eye disorders; patterns of work; doctors knowledge; management of disease.*

Introduction

It is estimated that 2–5% of all consultations in general practice are for eye problems.^{1,2} Most consultations are for common, self-limiting, or easily treatable conditions which can be managed by general practitioners without referral to hospital.² In McDonnell's study of patients presenting to two health centres in south London over a three-month period, bacterial and allergic conjunctivitis, meibomian cysts, and blepharitis accounted for more than 70% of consultations for eye conditions, while contact lens problems, corneal abrasions, foreign bodies, styes and floaters accounted for a further 12% of consultations. McDonnell's assertion that general practitioners lack confidence in ophthalmology is supported by the establishment of eye care centres, and eye hospital casualty departments

in inner city areas, which undertake much of the primary ophthalmic care.²

To help in the planning of improvements in the local ophthalmology service a study was carried out to identify general practitioners' perceived strengths and weaknesses in eye care; the levels of equipment available to them; referral policies; and their perceived needs for continuing medical education in ophthalmology.

Method

Torbay health district comprises the conurbation of Torquay, Paignton and Brixham, and the surrounding rural and semi-rural areas. The majority of the 146 general practitioners in the health district refer patients to Torbay District General Hospital, serving a population of approximately 226 000 people. In April 1989, postal questionnaires about ophthalmology were sent to all 146 general practitioners in the Torbay health district. The general practitioners were asked to return the questionnaire unanswered if they did not use Torbay District General Hospital for eye referrals. General practitioners failing to return their questionnaires were telephoned to ascertain whether they referred patients to Torbay District General Hospital.

The questionnaire asked general practitioners about their overall level of confidence with ophthalmology as a subject and whether they felt confident in diagnosing and managing 10 common and 24 less common eye conditions. They were also asked how they would manage these 34 conditions: whether by themselves, by initiating management and referring the patient elsewhere if necessary, or by referring the patient immediately to hospital.

General practitioners were asked whether they had ready access to 15 specified items of ophthalmic equipment. Detailed questions were asked about their method of removing corneal foreign bodies; staining for the presence of corneal abrasion or ulcers; and ophthalmoscopy and recording of visual acuity. In addition, they were asked about their referral policy for patients with cataracts and with diabetes. Finally, general practitioners were asked whether protocols for common eye conditions; a series of informal teaching sessions; or attending eye clinics as an observer would be helpful in providing further education in ophthalmology.

Results

A total of 130 general practitioners replied that they used Torbay District General Hospital for eye referrals, and of these, 98 completed and returned the questionnaire, a response rate of 75.4%.

A total of 57% of the general practitioners indicated that they did not feel confident with ophthalmology as a subject, compared with 38% of general practitioners who felt either confident or very confident (not stated by 3% of general practitioners).

Equipment

Almost all the general practitioners had access to a Snellen chart, an ophthalmoscope, local anaesthetic drops, dilating drops and fluorescein drops (Table 1). The majority had colour vision

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Table 1. Percentage of the 98 general practitioners with access to 15 items of ophthalmic equipment.

Ophthalmic equipment	% of GPs
Snellen chart	95
Near vision chart	63
Colour vision chart	81
Stycar chart	30
Kay picture test	16
Stycar balls	27
Pin hole device	47
Red-topped pin	26
Blue light source	51
Ophthalmoscope	95
Tonometer	10
Slit lamp	11
Local anaesthetic drops	92
Dilating drops	85
Fluorescein drops	94

charts and near vision charts, but few had paediatric testing equipment (Stycar chart, Kay picture test or Stycar balls). Three general practitioners said they had neither an ophthalmoscope nor a Snellen chart.

Confidence in diagnostic skills

For most of the common eye conditions, the majority of general practitioners felt confident in their diagnostic abilities (Table 2).

Confidence was expressed most frequently for diagnosing bacterial conjunctivitis, allergic conjunctivitis, meibomian cysts, blepharitis, styes, corneal foreign bodies and abrasions. Fewer general practitioners felt confident in diagnosing problems with contact lenses, floaters and watering eyes. For the 24 less common conditions, general practitioners were less likely to report being confident in diagnosis.

Management policy

Management and referral patterns for the 10 common eye conditions reflected the general practitioners' diagnostic confidence; general practitioners indicated that they would manage most of these conditions themselves, although many indicated that they would refer later if necessary (Table 2). In contrast, very low levels of confidence were expressed for management of the 24 less common eye conditions. General practitioners indicated that most patients with these conditions would be referred to hospital, although there was disparity between individual general practitioners, some of whom would refer patients immediately while others would initiate treatment and refer later if necessary. In answer to questions about specific treatment methods, most general practitioners removed corneal foreign bodies themselves (87%) and stained for corneal abrasions and dendritic ulcers (93%). Seventy five per cent of general practitioners claimed to record visual acuity for eye problems when vision was affected. Despite having the relevant drops, only 41% of general practitioners said they dilated pupils for retinoscopy.

Table 2. Confidence in diagnosing and managing eye conditions among the 98 general practitioners and their reported management policy.

Eye condition	% of GPs confident diagnosing	% of GPs		
		Confident managing	Would refer immediately	Would refer later if necessary
<i>Common conditions</i>				
Bacterial conjunctivitis	94	88	3	9
Allergic conjunctivitis	93	79	3	18
Meibomian cyst	93	12	12	76
Blepharitis	92	68	4	28
Contact lens problems	57	13	19	68
Corneal abrasion	94	45	7	48
Corneal foreign body	91	45	12	43
Stye	92	73	0	27
Floaters	77	35	7	58
Watering eyes	81	19	4	77
<i>Less common conditions</i>				
Senile macular degeneration	40	5	33	62
Diabetic retinopathy	44	0	39	61
Chronic glaucoma	36	0	95	5
Optic atrophy	24	0	83	17
Retinal artery emboli	25	0	86	14
Ingrowing eye lashes	89	32	12	56
Papilloedema	48	0	90	10
Retinal detachment	37	0	100	0
Cataract	90	0	19	81
Temporal arteritis	74	20	26	54
Nystagmus	64	5	33	62
Thyroid eye disease	52	5	35	60
Ophthalmic zoster	69	9	36	55
Episcleritis	42	12	38	50
Periorbital cellulitis	68	12	44	44
Hemianopia	63	5	51	44
Dendritic ulcer	63	4	57	39
Acute iritis	39	2	58	40
Squint/diplopia	65	0	64	36
Hyphema	45	3	72	25
Reduced visual acuity in a child	14	0	88	12
Acute glaucoma	48	0	100	0
Optic neuritis	18	2	85	13
Retinal vein occlusion	32	0	84	16

Referral policy for cataracts. A minority (19%) of doctors referred all patients with cataracts when first diagnosed. The majority (81%) referred patients when the cataract became a problem for the patient, or when vision was reduced to 6/18 or less when measured on the Snellen chart.

Referral policy for diabetic retinopathy. A total of 32% of responding doctors referred all diabetic patients for ophthalmic assessment in the hospital outpatient department, and 35% referred all longstanding diabetic patients. A total of 39% of the doctors referred patients immediately with any sign of diabetic retinopathy or reduced visual acuity while the remainder would refer later if necessary.

Eye care in general practice and continuing medical education

Doctors were asked whether they would be prepared to take on more eye care themselves if offered more support, and 78% said they would be prepared to do so. The possible sources of support offered included protocols for common eye conditions, a series of informal teaching sessions, and attending eye clinics as an observer. There was a positive response to these questions, with 86% of general practitioners requesting protocols and 81% requesting informal teaching sessions in ophthalmology. Half of the doctors (53%) wished to attend eye clinics as observers.

Discussion

In 1982, Gilkes stated 'an indisputable fact is that most doctors who would be unwilling to admit to basic lacunae in their knowledge of matters of, say, the chest, the stomach, or the bones, freely confessed their ignorance, and even fear, of the mysteries of the eye'.³ Analysing the results of a postal survey on ophthalmology completed by general practitioners in 1987, Wilson commented 'it is difficult to imagine that 10% of general practitioners would admit to being scared stiff of any other medical specialty'.⁴ This, together with the low level of examination and investigation, and the possibility of inappropriate treatment, suggests that at least in the past, general practitioner education in ophthalmology has been insufficient.

In this study it was found that more than half of general practitioners did not feel confident with ophthalmology in general. In particular, very low levels of confidence were expressed in diagnosing posterior segment disease such as senile macular degeneration, diabetic retinopathy, retinal detachment, retinal vessel occlusion, and chronic glaucoma. These conditions represent common causes of blindness in the United Kingdom. For diabetes and glaucoma, effective treatment is available, with early detection offering the best hope of a successful outcome.⁵⁻¹⁰

This study established that general practitioners felt confident in diagnosing and managing most of the common ophthalmic problems presenting to them, but perhaps the most interesting findings referred to management of less common eye conditions by general practitioners. For example, 20% of general practitioners indicated that they would feel confident managing cases of temporal arteritis with eye involvement without referral: it may be questioned whether this is appropriate. Similarly, 55% of general practitioners indicated that they would initiate treatment for ophthalmic zoster and refer later if necessary, while 36% of their colleagues would refer cases immediately for hospital treatment. There is an interesting disparity of views in the management of other conditions, for example, one third of general practitioners would refer cases of senile macular degeneration immediately, while approximately two thirds would not. Five general practitioners indicated that they

would treat the condition themselves, without referral. Similar proportions exist for nystagmus and thyroid eye disease.

The reasons for the lack of confidence expressed by general practitioners are perhaps not too difficult to identify. Undergraduate teaching of ophthalmology both in time and content, has often been insufficient to allow students to master what is clearly a difficult subject. There is a lack of opportunity to gain confidence with complex skills such as direct ophthalmoscopy or slit lamp biomicroscopy. Ophthalmology has an image of high technology, and there is a belief among many general practitioners that most acute inflammatory disorders of the anterior segment cannot be diagnosed without the use of a slit lamp. In addition, most posterior segment disorders are seen infrequently by general practitioners and may occur in elderly patients with co-existing lens opacities which make examination of the retina more difficult.

Unfortunately, a lack of confidence can further impair performance, and in many cases, general practitioners do not appear to follow a logical or consistent approach to diagnosis. Simple procedures, such as measuring visual acuity, staining the cornea with fluorescein or dilating the pupils for retinoscopy, would often help general practitioners towards a working diagnosis and management plan.

In this survey, 78% of general practitioners would be prepared to take on more eye care in general practice if offered support. Specifically, over 80% requested protocols for common eye conditions and a series of informal teaching sessions. The findings of this survey imply that teaching programmes in ophthalmology would be welcomed by general practitioners. Optimal uptake could be achieved if these were learner-centred with opportunities for small group discussions, and hands-on experience, and at times and places convenient to general practitioners. Similar teaching programmes for undergraduates may also be recommended. Dart raised the possibility of ophthalmologists holding outpatient clinics in community settings.¹ This would have the advantages of feedback on a local level, and also of increasing the level of sophisticated equipment, such as slit lamps, in the community.

In response to this study, two of the authors (P I F and C J) are preparing protocols for the 34 eye conditions specified in this paper, with an emphasis on recognition of these conditions, appropriate management by general practitioners and referral policies.

For the diagnosis of acute anterior segment inflammatory conditions and external eye injuries, medical students, general practitioner trainees and principals would benefit from spending time in eye casualty departments, observing through a 'teaching arm' on the slit lamp. For sight-threatening disorders of the posterior segment of the eye, slide presentations are of some value, but it is preferable to organize teaching sessions where patients with classic signs are available for ophthalmoscopic examination, with a retinal photograph or diagram showing what to look for. In addition, ophthalmologists might improve the referral service from general practitioners by inviting general practitioners to attend eye clinics as observers, specifying the referral information they require and suggesting referral policies for such conditions as cataracts, diabetes and glaucoma. In some vocational training courses for general practice there is an option for trainee attachment with an ophthalmology department. This is generally popular with trainees, and is usually a three-month placement. Clearly, trainees can only be of limited usefulness working in this specialty for such a short time, but some ophthalmologists have obviously been convinced of the long-term benefits of increasing the numbers of doctors willing to undertake eye care in general practice.

While this study found that overall levels of confidence in ophthalmology were not high among general practitioners, they were confident in dealing with common eye conditions, most of which they managed without the need for referral elsewhere. There is a perceived need for further education and support, in return for which general practitioners are prepared to take on more eye care in general practice.

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