# Audit of Suffolk optometric referrals

Community-based optometrist, **Dr Derek Dunstone**, discusses optometric referrals following an audit of the quality of referrals submitted by Suffolk optometrists during the summer of 2014

## BACKGROUND

**A good** quality referral is an essential part of the clinical care of our patients[1]. A referral that is clear and precise will help build trust with our local ophthalmology team and GPs. It is accepted that it can be difficult for community optometrists to audit their own referrals, as the feedback from secondary care is generally poor, with only 13% of referrals receiving a reply.[2] Many studies to date have investigated agreement between optometrists and a 'gold-standard' specialist ophthalmologist.[3,4] In order to clearly establish whether the referral is appropriate, the patient under consideration would need to be re-examined by an experienced optometrist or an ophthalmologist. This was considered expensive and time consuming for practitioners and patients.

In this study, referral quality was judged by fellow optometrists against an agreed 'good practice' standard ascertained from the guidelines.[5-7] There was a need for clear establishment of good practice to allow the audit process to be effective.[8]

Rules relating to referral changed from the year 2000, whereby an optometrist is not obliged to refer all patients with any disorder. The optometrist has a statutory duty to refer a patient suffering from injury or disease unless, in his/her professional judgment, there is 'no justification to do so'.[9-10] These changes to referral rules and subsequent amendments to General Ophthalmic Services (GOS) contracts suggested the need to state the provisional diagnosis on a referral.[11] A referral should be legible (preferably typed) and include indication of urgency.[12-13] As much factual information as possible should be included in a glaucoma referral including a copy of the visual field, van Herick grade and stating whether the optic discs appeared normal or pathological.[14]


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Parker looked at referral letter quality and the potential to reduce referrals.[14] An optometrist referral was considered necessary if there was no primary care alternative and College Guidance suggested referral, or if diagnosis, treatment or further investigations were indicated by secondary care.

## DATA COLLECTION

A checklist form was used by the audit team to assess referral quality. This tool was designed by the author and disseminated the referral into components as described in the guidelines. The Audit Team, made up of the author and other optometrists from the Suffolk Local Optometric Committee (LOC), considered the quality of 10% of the referrals of each individual optometrist submitted in Suffolk during the months of July, August and September 2014. The highest standards of information governance were adhered to[8,15,16] and information kept confidential.

Specific aspects of each referral were graded as 'green', 'amber' or 'red' according to whether appropriate details had been included adequately and were legible. Constructive comments were provided where the referral appeared not to meet with the Standards and Guidelines in any specific area. »

| Aspect of referral | Grade | | | | | | Total (n) |
|---|---|---|---|---|---|---|---|
| | Green | | Amber | | Red | | |
| | n | % | n | % | n | % | |
| Date of examination | 425 | 92 | 22 | 5 | 15 | 3 | 462 |
| Optometrist, patient and GP details | 1,154 | 83 | 199 | 14 | 33 | 2 | 1,386 |
| Signs and symptoms | 257 | 56 | 178 | 38 | 27 | 6 | 462 |
| Relevant tests and investigations | 159 | 34 | 248 | 54 | 55 | 12 | 462 |
| Copies of supplementary data | 417 | 90 | 33 | 7 | 12 | 3 | 462 |
| For glaucoma referrals: optic disc description | 72 | 57 | 37 | 29 | 18 | 14 | 127 |
| Repeat of tonometry or visual fields | 51 | 40 | 53 | 42 | 23 | 18 | 127 |
| Non-contact tonometry average | 88 | 69 | 25 | 20 | 14 | 11 | 127 |
| Anterior chamber | 41 | 32 | 13 | 10 | 73 | 57 | 127 |
| Diagnosis | 344 | 74 | 96 | 21 | 22 | 5 | 462 |
| Urgency | 432 | 94 | 17 | 4 | 13 | 2 | 462 |
| Legibility | 338 | 73 | 115 | 25 | 9 | 2 | 462 |
| Overall referral quality | 225 | 49 | 214 | 46 | 23 | 5 | 462 |
| **Total** | **4,432** | **73** | **1,280** | **21** | **338** | **6** | **6,052** |

**Table 1**
The grading result (green, amber or red) for various aspects of referral quality

Suffolk optometrists are able to refer patients using an on-line referral portal provided by Evolutio Care Innovations and referrals are triaged by local optometrists. Based on the information available in the referral the patient is forwarded to either a hospital eye clinic or a local optometric Enhanced Service Provider (ESP). An ESP carries out referral refinement and either refers the patient to an eye clinic (with the results of the additional tests) or discharges back to the care of the original referring practitioner.

The pre-secondry care outcomes of all referrals submitted by each optometrist for the three-month period were also studied. Average optometrist performance was established and chi-squared statistical analyses applied to investigate for association between referral quality and referral outcomes.

## RESULTS

### Audit of individual referrals

The audit team considered 462 referrals from 182 optometrists with results shown in Table 1.

Provisional diagnosis and referral urgency was appropriately recorded on the majority of referrals – 74% and 94% respectively. 'Green' grading was found for 56% and 34% for signs/symptoms and relevant tests/investigations respectively. For glaucoma referrals 57% were classified 'red' in respect of including appropriate information of the anterior chamber, for example van Herick grade. In respect of overall referral quality, 5% (n= 23 referrals) were considered poor (with a 'red' grading).

Repeated omissions from referrals were:

- van Herick grading and average IOP reading from glaucoma referrals,
- Approximate size of lesion, for example choroidal naevus
- Reference to use of Fluorescein in cases of ocular discomfort or pain,
- Shafer's sign in cases of 'flashes and floaters'
- Adequate description of visual field, or copy of plot, especially when reason for referral is visual field defect
- Visual fields or colour vision in cases of swollen discs or pupil anomaly
- Onset of symptoms, including cases of 'flashes and floaters' reduced vision, pupil defect, ocular pain and distortion
- Information regarding severity and frequency of symptoms
- Not always clear whether symptoms were present
- YAG capsulotomy, suspected retinal tear/PVD and child referrals were the most likely to demonstrate minimal information, for example cases with only description of signs and symptoms as 'YAG please' or 'see to rule out tear'. Examples present of paediatric referrals without reference to fundoscopy, red reflex, Bruckner's test, stereopsis or oculomotor balance.

The majority of referrals were hand written/faxed (71%, n=330), with 23% (n= 107) submitted on-line and 6% (n= 25) typed/faxed. Legibility was found to be partial or poor ('amber' or 'red') for 27% of referrals and this was influenced by whether the referral was typed (online or faxed) or hand-written; $x^2$= 60.36, p<0.05. For typed (online or faxed) referrals 98% were fully legible ('green'), reducing to 63% for those hand-written. For online referrals, 100% were fully legible.

### Referral outcomes

The outcomes of 3,521 optometrist submissions were studied; 3,224 referrals and 297 post cataract reports.

| Practice type | Optoms | | Reports | | Referrals | | Referrals per optom | | Rejected reports | | Referrals to ESP | | Discharged by ESP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | n | % | n | % | n | % | av | max | n | % | n | % | n | % |
| Independent | 48 | 29 | 1,074 | 31 | 949 | 29 | 20 | 55 | 30 | 3 | 79 | 8 | 54 | 68 |
| Multiple | 116 | 70 | 2,362 | 67 | 2,198 | 68 | 19 | 92 | 165 | 7 | 352 | 16 | 240 | 68 |
| Both | 2 | 1 | 85 | 2 | 77 | 2 | 39 | 55 | 7 | 8 | 13 | 17 | 13 | 100 |
| Total | 166 | | 3,521 | | 3,224 | | 19 | | 202 | 6 | 444 | 14 | 307 | 69 |

**Table 2**
Referral outcomes for optometrists working in different practice types. 'Reports' includes referrals and post-cataract reports. Ind = independent practice; multi = multiple practice (>3 practices); both = data from optometrists working in both independent and multiple type practices

The results of referral outcomes are shown in Table 2. The majority of optometrists work in multiple type practices (70%, n=116) and subsequently the majority of referrals submitted (68%, n=2,198) were from these practitioners. Optometrists working in multiple type practices had a greater number of referrals rejected and forwarded to an ESP than those from independent practice. However, other potential confounding variables had not been considered, for example date of qualification and university attended. Each optometrist referred, on average, 19 patients over three months, with 6% of reports (n= 202) rejected. An eighth (14%, n=444) of referrals had been forwarded to an ESP and of these 69% were discharged back to the care of the original optometrist i.e. a hospital eye clinic appointment was considered unnecessary.

'Reports' includes referrals and post-cataract reports. 'Rejected reports' are reports rejected by administrators for non-clinical reasons, for example illegibility or absence of optometrist, GP or patient details.

## CROSS REFERENCING BETWEEN REFERRAL REPORT AND OUTCOME DATA

Referral outcome data was available for 166 optometrists. Of these, 17 optometrists were identified as having submitted referrals judged to be of poor overall quality (red grading). The referral outcomes of these 'poor' referring practitioners and the remainder were compared.

The amount of rejected referrals was influenced by whether the referral was submitted by an optometrist found to have submitted poor referrals; $x^2 = 24.9$, $p<0.05$. The 'poor' referring optometrists had 11% (n= 43) of referrals rejected out of a total submitted of 378. Optometrists who had not submitted a 'poor' referral had 5% (n= 159) of referrals rejected out of a total of 3,143.

The amount of referrals sent to ESP by triage was influenced by whether the referral was submitted by an optometrist found to have submitted poor referrals; $x^2 = 10.8$, $p<0.05$. The proportion of referrals sent to ESP reduces from 19% for 'poor' referring optometrists to 13% for 'adequate/good' referring optometrists.

The amount of referrals discharged by ESP's was not influenced by whether the referral was submitted by an optometrist found to have submitted 'poor' referrals.

## OUTCOMES AND LEARNING

Individual feedback regarding the quality of referrals sampled and outcomes of all referrals submitted was sent confidentially to each optometrist whose referral had been audited.

A statistically significant link has been established between referral quality (as established by use of a referral quality grading form) and referral outcomes, which confirms the importance of appropriate referrals to patient care. Optometrists who submitted poor referrals were more likely to have referrals rejected and more patients forwarded for the opinion of an ESP. Generally, patients are sent by triage to ESP when referrals are lacking the results of key investigations and are considered to be less likely to require hospital eye clinic investigations or treatment.

### Key messages

- Legibility is significantly improved if the referral is typed, or submitted online, and faxed reports are difficult to read, especially if the referral form has shaded boxes
- ACA grade frequently omitted from glaucoma referrals (various methods are available to assess the ACA including van Herick grading and Smith's measure)[17]
- The importance of including relevant signs and symptoms.

Most importantly it is hoped that greater awareness of referral issues and common omissions will improve the quality of optometrist referrals. This will benefit the processing of referrals and ultimately the quality of service to the patient. A good quality referral is of benefit to the reputation of the optometric practice especially if, as recommended, the patient is provided with a copy of the referral.[1,12] A method of auditing referrals has been demonstrated that can be carried out in other areas of the UK and will be repeated in Suffolk to investigate whether the desired improvement has been achieved.


### SUMMARY

- A detailed inspection of 462 referrals was carried out by an Audit Team from Suffolk LOC
- Optometrists were effective at stating a provisional diagnosis and appropriate urgency
- Insufficient detail of signs and symptoms was common
- Illegibility of hand written referrals was a significant cause of rejected referrals
- A referral that includes all relevant signs, symptoms and test results is less likely to be checked (forwarded for refinement by an ESP).


## REFERENCES

References can be found online at www.optometry.co.uk/clinical.