THE COLLEGE OF OPTOMETRISTS

Research Symposium NOC 2016

Enhanced Scheme Evaluation Project (ESEP)

Robert Harper

On behalf of the ESEP team

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ESEP key objectives

- Systematic review of enhanced schemes
- Enhanced (community) scheme case studies
  - MECS (Lambeth and Lewisham) and GRRS (Manchester)
    - Clinical safety and effectiveness evaluation
    - Health economic evaluation
    - Stakeholder qualitative evaluation
- Other ESS (cataract, referral management)

Realist Review

Potentially relevant published papers identified by searching databases n=8280

Removal of duplicates across data sources

Papers added from grey literature and hand-searching

Potentially relevant published papers retained for scrutiny of abstracts n=7198

Papers excluded after scrutiny of abstracts on basis of inclusion/exclusion criteria

Full published papers retrieved for detailed evaluation n=90

Papers excluded after detailed evaluation on basis of inclusion/ exclusion criteria n=51

Papers included in the review n= 39

Eye (2002) 16, 1–6
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www.nature.com/eye

Community refinement of glaucoma referrals

DB Henson[1], AF Spencer[1], R Harper[1] and EJ Cadman[2]

CLINICAL S

Eye (2012), 1–9
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www.nature.com/eye

Agreement between specially trained and accredited optometrists and glaucoma specialist consultant ophthalmologists in their management of glaucoma patients

JR Marks[1], AK Harding[1], RA Harper[1], E Williams[1], S Haque[2], AF Spencer[1] and C Fenerty[1]

CLINICAL STUDY

Abstract

Aims Optometrists are becoming increasingly involved in the co-management of glaucoma patients as the burden on the Hospital Eye Service continues to escalate. The aim of this study was to assess the agreement between specially trained optometrists and glaucoma-specialist consultant ophthalmologists in their management of glaucoma patients.

Methods Four optometrists examined 23–25 patients each and the clinical findings, up to

consultants and when qualified agreements were included. Of the 47 glaucoma and non-glaucoma queries generated during the study, 42 resulted in a change of management.

Conclusion Confirming the ability of optometrists to make appropriate decisions regarding the stability and management of glaucoma patients is essential if their involvement is to continue to develop to meet the demand of an aging population.

Eye advance online publication, 13 April 2012;

OPO OPHTHALMIC & PHYSIOLOGICAL OPTICS
THE JOURNAL OF THE COLLEGE OF OPTOMETRISTS

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REVIEW PAPER

Effectiveness of UK optometric enhanced eye care services: a realist review of the literature

Helen Baker[1,2], Gokulan Ratnarajan[2,3,4], Robert A. Harper[5], David F. Edgar[1] and John G. Lawrenson[1]

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Citation information: Baker H, Ratnarajan G, Harper RA, Edgar DF, Lawrenson JG. Effectiveness of UK optometric enhanced eye care services: a realist review of the literature. *Ophthalmic Physiol Opt* 2016; 36: 545–557. doi: 10.1111/opo.12312

Keywords: commissioning, enhanced optometric services, enhanced service schemes, eye care services, ophthalmic disease, realist review

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Abstract

Purpose: UK demographic and legislative changes combined with increasing burdens on National Health Service manpower and budgets have led to extended roles for community optometrists providing locally-commissioned enhanced optometric services (EOS). This realist review's objectives were to develop programme theories that implicitly or explicitly explain quality outcomes for eye care

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The effectiveness of enhanced optometric services in the management of acute and chronic ophthalmic disease: a '***realist review***' of the literature….highlights:

- First systematic review to evaluate locally-commissioned ESS using community optometrists
- Realist review methodology increasingly being used to review the effectiveness of 'complex' interventions
- ESS can provide ophthalmic care commensurate with usual care
- ESS are well received by patients and other stakeholders
- Further work to establish cost-effectiveness and sustainability of schemes is required

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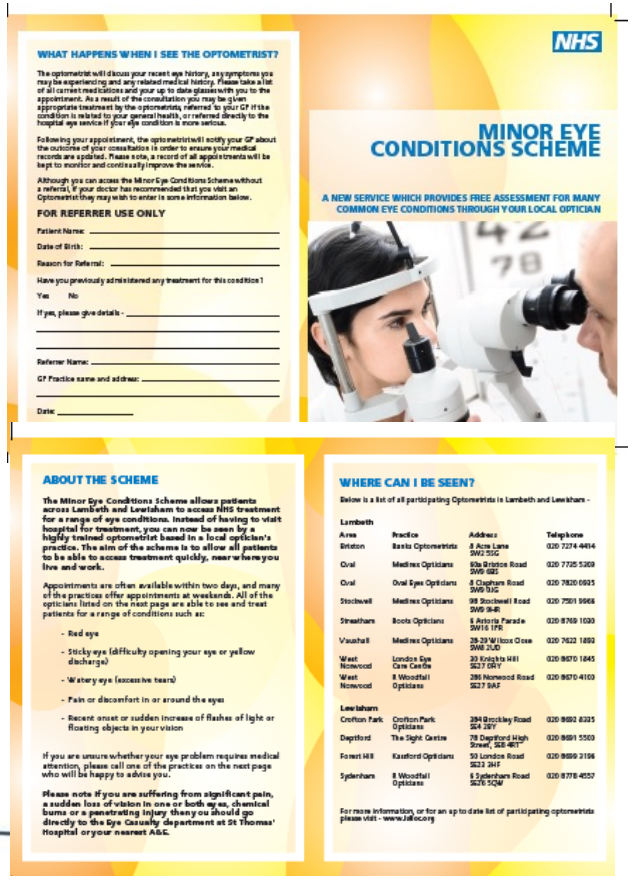
MECS

MINOR EYE CONDITIONS SERVICE (MECS)

The Minor Eye Conditions service is up and running in Lambeth and Lewisham. Below is an interactive ma
practices are accredited and seeing MECS patients.



NHS

WHAT HAPPENS WHEN I SEE THE OPTOMETRIST?

The optometrist will discuss your recent eye history, any symptoms you may be experiencing and any related medical history. Please take a list of all current medications and your up to date glasses with you to the appointment. As a result of the consultation you may be given appropriate treatment by the optometrists, referred to your GP if the condition is related to your general health, or referred directly to the hospital eye service if your eye condition is more serious.

Following your appointment, the optometrist will notify your GP about the outcome of your consultation in order to ensure your medical records are updated. Please note, a record of all appointments will be kept to monitor and continually improve the service.

Although you can access the Minor Eye Conditions Scheme without a referral, if your doctor has recommended that you visit an Optometrist they may wish to enter in some information below.

FOR REFERRER USE ONLY

Patient Name: _____

Date of Birth: _____

Reason for Referral: _____

Have you previously administered any treatment for this condition?

Yes No

If yes, please give details - _____

Referrer Name: _____

GP Practice name and address: _____

Date: _____

MINOR EYE CONDITIONS SCHEME

A NEW SERVICE WHICH PROVIDES FREE ASSESSMENT FOR MANY COMMON EYE CONDITIONS THROUGH YOUR LOCAL OPTICIAN

ABOUT THE SCHEME

The Minor Eye Conditions Scheme allows patients across Lambeth and Lewisham to access NHS treatment for a range of eye conditions. Instead of having to visit hospital for treatment, you can now be seen by a highly trained optometrist based in a local optician's practice. The aim of the scheme is to allow all patients to be able to access treatment quickly, near where you live and work.

Appointments are often available within two days, and many of the practices offer appointments at weekends. All of the opticians listed on the next page are able to see and treat patients for a range of conditions such as:

- Red eye
- Sticky eye (difficulty opening your eye or yellow discharge)
- Watery eye (excessive tears)
- Pain or discomfort in or around the eyes
- Recent onset or sudden increase of flashes of light or floating objects in your vision

If you are unsure whether your eye problem requires medical attention, please call one of the practices on the next page who will be happy to advise you.

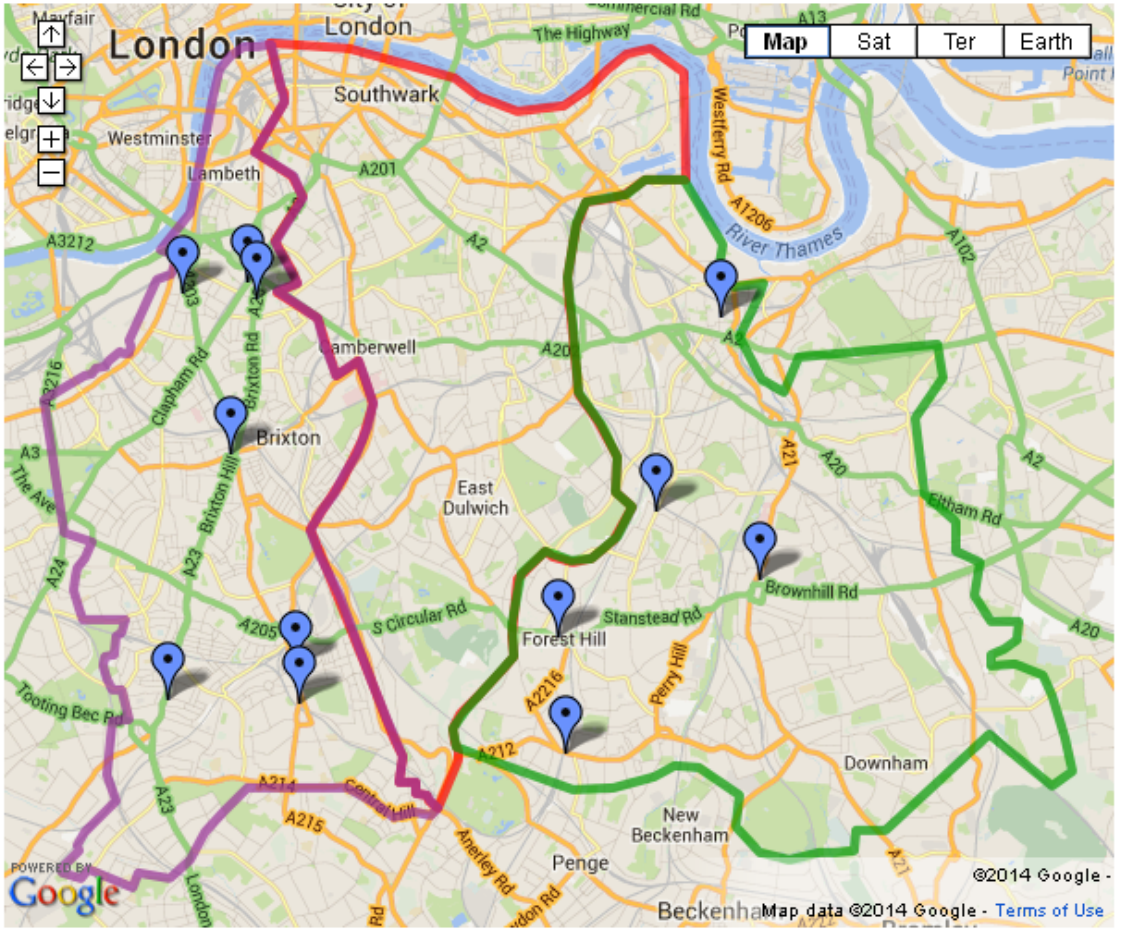
Please note if you are suffering from significant pain, a sudden loss of vision in one or both eyes, chemical burns or a penetrating injury then you should go directly to the Eye Casualty department at St Thomas' Hospital or your nearest A&E.

WHERE CAN I BE SEEN?

Below is a list of all participating Optometrists in Lambeth and Lewisham -

Area	Practice	Address	Telephone
Lambeth			
Brixton	Banks Optometrists	8 Acre Lane SW2 5SG	020 7274 4414
Oval	Medirex Opticians	93a Brixton Road SW9 6BD	020 7735 5369
Oval	Oval Eyes Opticians	8 Clapham Road SW9 0JG	020 7820 6925
Stockwell	Medirex Opticians	98 Stockwell Road SW9 9AR	020 7501 9966
Streatham	Boots Opticians	6 Astoria Parade SW16 1PR	020 8769 1030
Vauxhall	Medirex Opticians	28-29 Wilcox Close SW8 2UD	020 7622 1893
West Norwood	London Eye Care Centre	30 Knights Hill SE27 0RY	020 8670 1845
West Norwood	R Woodfall Opticians	280 Norwood Road SE27 9AF	020 8670 4100
Lewisham			
Crofton Park	Crofton Park Opticians	284 Brockley Road SE4 2RY	020 8692 8325
Deptford	The Sight Centre	78 Deptford High Street, SE8 4RT	020 8691 5503
Forest Hill	Kasford Opticians	50 London Road SE23 3HF	020 8699 2196
Sydenham	R Woodfall Opticians	6 Sydenham Road SE26 5QW	020 8778 4557

For more information, or for an up to date list of participating optometrists please visit - www.lvlloc.org



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MECS evaluation (methodology)

- Qualitative (2 stages)
  - Stakeholder views (patients, optometrists, ophthalmologists, GPs and commissioners)
- Quantitative
  - Prospective analysis of all patients seen over a 12 month period (N=2307)
  - Clinical decision making study (referred patients and patients managed by optometrists)
- Health economic analysis

BMJ Open

Evaluation of a minor eye conditions scheme delivered by community optometrists

E Konstantakopoulou,[1] D F Edgar,[1] R A Harper,[2] H Baker,[1,3] M Sutton,[4] S Janikoun,[5] G Larkin,[6] J G Lawrenson[1]

To cite:
Konstantakopoulou E, Edgar DF, Harper RA, *et al*. Evaluation of a minor eye conditions scheme delivered by community optometrists. *BMJ Open* 2016;**6**:e011832. doi:10.1136/bmjopen-2016-011832

► Prepublication history for this paper is available online. To view these files please visit the journal online (http://dx.doi.org/10.1136/bmjopen-2016-011832)

ABSTRACT

Background: The establishment of minor eye conditions schemes (MECS) within community optometric practices provides a mechanism for the timely assessment of patients presenting with a range of acute eye conditions. This has the potential to reduce waiting times and avoid unnecessary referrals to hospital eye services (HES).

Objective: To evaluate the clinical effectiveness, impact on hospital attendances and patient satisfaction with a minor eye service provided by community optometrists.

Methods: Activity and outcome data were collected for 12 months in the Lambeth and Lewisham MECS. A

Strengths and limitations of this study

- A case study approach lends itself to in-depth complex health service research and can yield powerful insights into aspects of health and healthcare delivery.
- The Lambeth and Lewisham minor eye conditions scheme is one of the first enhanced service schemes to be comprehensively evaluated.
- Equivalent data were also obtained for a neighbouring commissioning area (Southwark) in which the scheme was not introduced, allowing a comparison between hospital eye service (HES) referrals in areas with and without the

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MECS Outcome

Management	% of Px
Management of ocular pathology in practice	64%
Discharge/no ocular pathology	11%
Referral to King's College Hospital	10%
Referral to Guy's and St Thomas's Hospital	7%
Referral to other HES	1%
Referral to GP	6%

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MECS Clinical Decision making

- Ophthalmologist review of HES referrals
  - 89% appropriately referred
  - 78% referred with the appropriate urgency
    - Those deemed referred with inappropriate urgency were overcautious referrals in >90% cases
- Reference optometric panel consensus review of random sample of 220 (~10%) non-referrals
  - 95% appropriately managed
  - No major clinical safety issues

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MECS Health Economics

- 'First attendances' from GP to HES dropped by 26.8% (95% CI -40.5 to -13.1) in Lambeth & Lewisham when compared to Southwark, a neighbouring borough *without* the MECS scheme
- Paper pending

BMJ Open

A qualitative study of stakeholder views regarding participation in locally commissioned enhanced optometric services

E Konstantakopoulou,[1] R A Harper,[2] D F Edgar,[1] J G Lawrenson[1]

To cite: Konstantakopoulou E, Harper RA, Edgar DF, *et al*. A qualitative study of stakeholder views regarding participation in locally commissioned enhanced optometric services. *BMJ Open* 2014;**4**: e004781. doi:10.1136/bmjopen-2013-004781

► Prepublication history and

ABSTRACT

Objectives: To explore the general practitioners (GPs) a regarding the development a community-based enhanced

Design: Qualitative study u questionnaires and telephon

Setting: A minor eye condit a glaucoma referral refineme based on accredited commu

Participants: 41 optometri and 25 GPs.

BMJ Open

Multi-stakeholder perspectives of locally commissioned enhanced optometric services

H Baker,[1,2] R A Harper,[3] D F Edgar,[1] J G Lawrenson[1]

To cite: Baker H, Harper RA, Edgar DF, *et al*. Multi-stakeholder perspectives of locally commissioned enhanced optometric services. *BMJ Open* 2016;**6**: e011934. doi:10.1136/bmjopen-2016-011934

► Prepublication history and additional material is available. To view please visit the journal (http://dx.doi.org/10.1136/bmjopen-2016-011934).

Received 16 March 2016

ABSTRACT

Objectives: To explore views of all stakeholders (patients, optometrists, general practitioners (GPs), commissioners and ophthalmologists) regarding the operation of community-based enhanced optometric services.

Design: Qualitative study using mixed methods (patient satisfaction surveys, semi-structured telephone interviews and optometrist focus groups).

Setting: A minor eye conditions scheme (MECS) and glaucoma referral refinement scheme (GRRS) provided by accredited community optometrists.

Participants: 189 patients, 25 community optometrists, 4 glaucoma specialist hospital optometrists (GRRS), 5 ophthalmologists, 6 GPs (MECS), 4 commissioners.

Results: Overall, 99% (GRRS) and 100% (MECS)

Strengths and limitations of this study

- This is the first study to describe the views and attitudes of all key stakeholders (patients, optometrists, general practitioners, ophthalmologists and commissioners) on the operation of community-based enhanced optometric services.
- The wide range of qualitative methods used comprised patient satisfaction questionnaires validated by follow-up telephone interviews, focus groups and semi-structured telephone interviews.
- All those surveyed were active participants in the two schemes studied and their views may not be representative of participants in schemes in general across the UK

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‘GRRS’ (GERS)

- National Eye Care Services Steering Group (2002)
- MREH GRRS (2000)
- Objectives
  - reduce number of FP glaucoma referrals to HES
  - reduce waiting times between GP referral & glaucoma evaluation
  - greater involvement of primary care sector

Eye (2002) 16, 1–6

www.nature.com/eye

CLINICAL STUDY

Community refinement of glaucoma referrals

DB Henson[1], AF Spencer[1], R Harper[1] and EJ Cadman[2]

Abstract

Aim To describe a Manchester-based glaucoma referral refinement scheme designed to reduce the number of false-positive referrals to the hospital eye service. To report on the first years results of this scheme and its financial costs to the NHS.

Methods Patients with suspected glaucoma, instead of being referred to their GP and then on to the hospital eye service, were referred to a group of specially trained community optometrists working to an agreed set of

(20–65%), ie there is little if any evidence of glaucoma.[1–7] These false-positive referrals place unnecessary demands upon an already over-stretched resource and contribute to the long waiting times between GP referral and outpatient department (OPD) appointments. The false referrals also incur considerable financial costs, both for the NHS itself and to the patient (travel, lost time at work). In addition, there may be psychological costs, with unnecessary anxiety in the referred patient, who is informed that they may have glaucoma and

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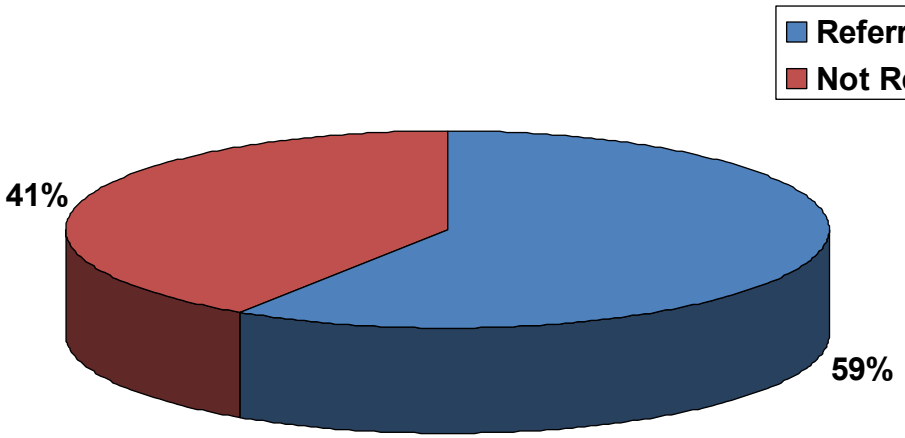
Early analysis of GRRS



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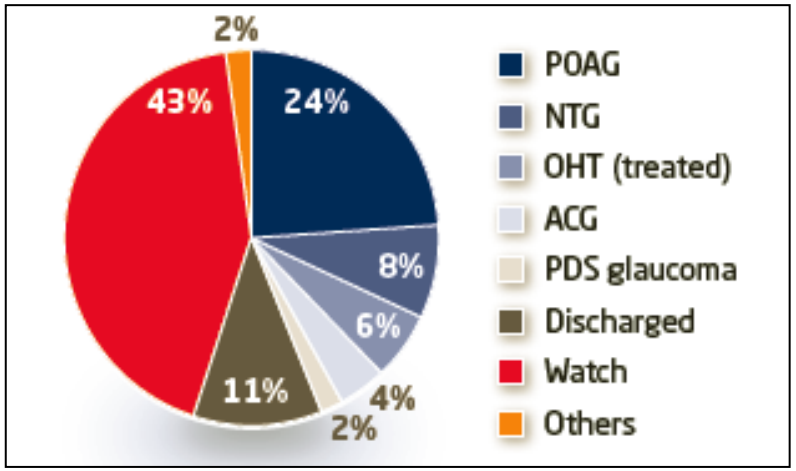

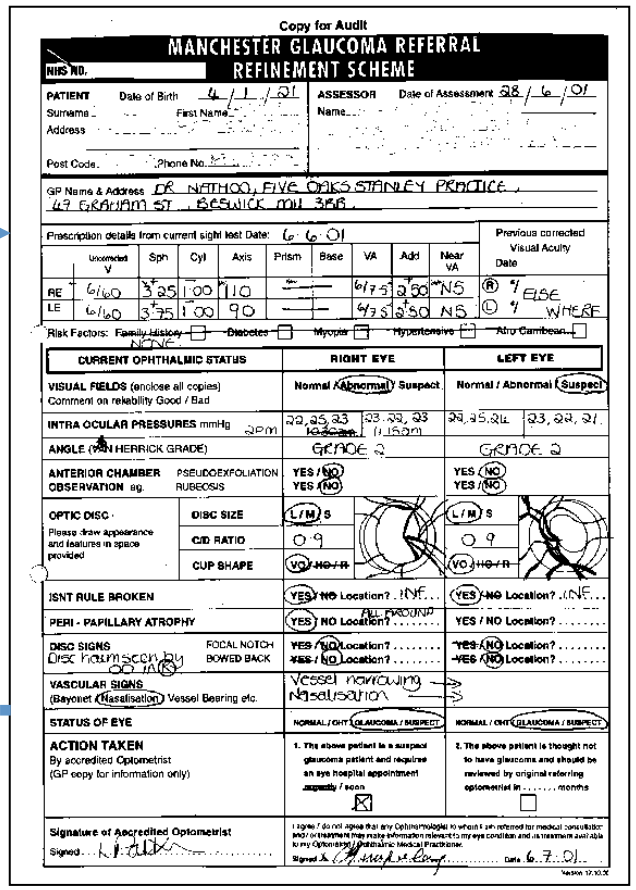

Copy for Audit

MANCHESTER GLAUCOMA REFERRAL REFINEMENT SCHEME

NHS NO.

PATIENT Date of Birth 4/1/21 Surname First Name Address Post Code Phone No.

ASSESSOR Date of Assessment 28/6/01 Name

GP Name & Address DR NAITHOO, FIVE OAKS STANLEY PRACTICE, 47 GRAHAM ST, BERWICK NU1 3BB.

Prescription details from current sight test Date: 6·6·01

	Unaided V	Sph	Cyl	Axis	Prism	Base	VA	Add	Near VA
RE	6/60	+3.25	-1.00	110			6/7.5	+2.50	N5
LE	6/60	+3.75	-1.00	90			6/7.5	+2.50	N5

Previous corrected Visual Acuity Date: R 4 ELSE L 4 WHERE

Risk Factors: Family History NONE Diabetes Myopia Hypertensive Afro Caribbean

CURRENT OPHTHALMIC STATUS		RIGHT EYE	LEFT EYE
VISUAL FIELDS (enclose all copies) Comment on reliability Good / Bad		Normal / Abnormal / Suspect	Normal / Abnormal / Suspect
INTRA OCULAR PRESSURES mmHg	2PM	22, 23, 23 (10:30) 23, 23, 23 (11:30)	24, 25, 24 23, 22, 21
ANGLE (SHAFFER/VAN HERRICK GRADE)		GRADE 2	GRADE 2
ANTERIOR CHAMBER OBSERVATION eg.	PSEUDOEXFOLIATION RUBEOSIS	YES / NO YES / NO	YES / NO YES / NO
OPTIC DISC Please draw appearance and features in space provided	DISC SIZE	L / M / S	L / M / S
	C/D RATIO	0·9	0·9
	CUP SHAPE	V / H / H	V / H / H
ISNT RULE BROKEN		YES / NO Location? INF...	YES / NO Location? INF...
PERI - PAPILLARY ATROPHY		YES / NO Location? ALL AROUND	YES / NO Location?
DISC SIGNS Disc haemorrhage OD (R)	FOCAL NOTCH BOWED BACK	YES / NO Location? YES / NO Location?	YES / NO Location? YES / NO Location?
VASCULAR SIGNS (Bayonet / Nasalisation / Vessel Bearing etc.		Vessel narrowing Nasalisation	
STATUS OF EYE		NORMAL / OHT / GLAUCOMA / SUSPECT	NORMAL / OHT / GLAUCOMA / SUSPECT
ACTION TAKEN By accredited Optometrist (GP copy for information only)		1. The above patient is a suspect glaucoma patient and requires an eye hospital appointment urgently / soon ☒	2. The above patient is thought not to have glaucoma and should be reviewed by original referring optometrist in ..... months ☐

Signature of Accredited Optometrist Signed ... Date 6.7.01

I agree / do not agree that any Ophthalmologist to whom I am referred for medical consultation and / or treatment may make information relevant to my eye condition and its treatment available to my Optometrist / Ophthalmic Medical Practitioner.

Signed ... Date 6.7.01

Version 12.10.X

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GERS Referral criteria (2013)

Single criteria

IOP ≥30mmHg confirmed at a second visit. If IOP >35 mmHg then no confirmatory measurement is necessary

Unequivocal pathological cupping at the optic nerve head. Abnormal neuroretinal rim configuration. Large cup, taking into account the overall size of the disc. Notched neuroretinal rim. The existence of a disc haemorrhage merits closer inspection for early nerve fibre loss. A >0.2 asymmetry of cup to disc ratio

Visual field loss consistent with a diagnosis of glaucoma, confirmed at a second visit. If explained by other disc or retinal pathology to be referred as such and not through scheme.

Combined criteria

IOP, age and CCT criteria as per NICE treatment algorithm**

IOP >21 mmHg plus an optic disc appearance suspicious of glaucoma or optic disc asymmetry

Abnormal optic disc and corresponding visual field defect (IOP not raised) (no need for confirmatory measures).

Additional criteria

Optic disc change over time e.g. increase in cup size, change in the rim appearance, or the occurrence of a new haemorrhage

Anterior segment signs of secondary glaucoma (eg pseudoexfoliation) with IOPs >22 mmHg on two occasions

Suspected narrow-angle glaucoma (symptoms of sub-acute attacks or occludable angle and IOP >22 mmHg).

**

CCT	>590 micrometres		555–590 micrometres		<555 micrometres		Any
IOP (mmHg)	>21-25	>25-29	>21-25	>25-29	>21-25	>25-29	≥30
Referral	No	No	No	Refer if <60	Refer if <65	Refer if <80	Refer

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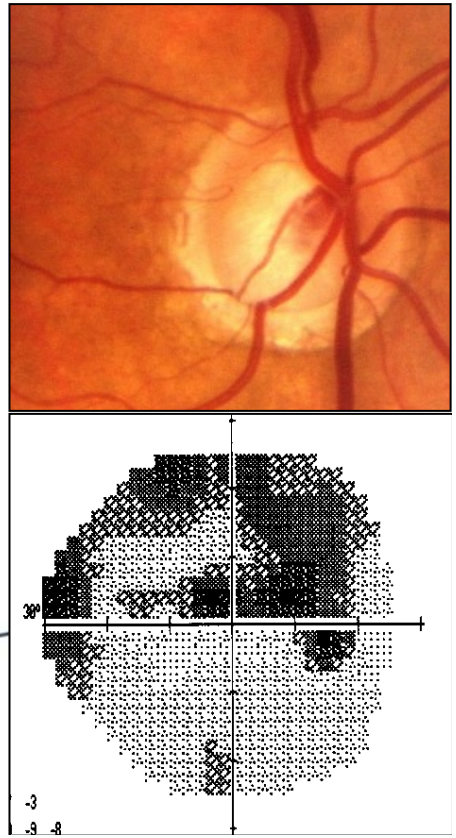
GERS evaluation progress

- Outcomes (Oct 2014-July 2016)
  - 1,404 patients seen in GRRS
  - 753 (54%) discharged
    - 130 seen in FN study
  - 651 (46%) referred
    - Variable inter-optometrist referral rate
    - Referral outcome on ~50%
      - 13% discharged
      - 50% monitored
      - 28% commenced on treatment
      - 9% DNA



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ESEP Team

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Robert Harper and John Lawrenson

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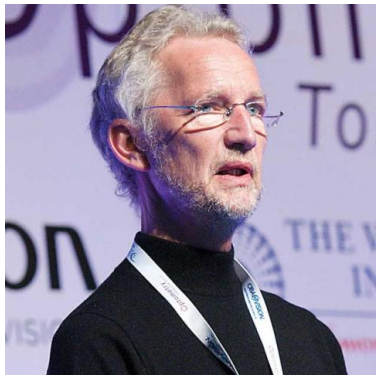

Professor David Henson's Festschrift Glaucoma Research Meeting

Speakers include: Bal Chauhan, Paul Artes and David Henson

Postgraduate Education Centre, Central Manchester
University Hospitals NHS Foundation Trust

Wednesday 11th January 2017

Enquiries: Peter.Nield@cmft.nhs.uk