Research Symposium NOC 2016

Enhanced Scheme Evaluation Project (ESEP)

Robert Harper
On behalf of the ESEP team
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)
Papers added from grey literature and hand-searching
n=15

Removal of duplicates across data sources
n=1097

Papers excluded after scrutiny of abstracts on basis of inclusion/exclusion criteria
n=7108

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

Potentially relevant published papers identified by searching databases
n=8280

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

Full published papers retrieved for detailed evaluation
n=90

Papers included in the review
n=39

Community refinement of glaucoma referrals
Effectiveness of UK optometric enhanced eye care services: a realist review of the literature

Helen Baker¹,², Gokulan Ratnarajan²,³,⁴, Robert A. Harper⁵, David F. Edgar¹ and John G. Lawrenson¹

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

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
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
The Minor Eye Conditions service is up and running in Lambeth and Lewisham. Below is an interactive map showing the practices accredited and seeing MECS patients.
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
Evaluation of a minor eye conditions scheme delivered by community optometrists


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 patient satisfaction questionnaire was given to patients.

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 scheme.
## MECS Outcome

<table>
<thead>
<tr>
<th>Management</th>
<th>% of Px</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management of ocular pathology in practice</td>
<td>64%</td>
</tr>
<tr>
<td>Discharge/no ocular pathology</td>
<td>11%</td>
</tr>
<tr>
<td>Referral to King’s College Hospital</td>
<td>10%</td>
</tr>
<tr>
<td>Referral to Guy’s and St Thomas’s Hospital</td>
<td>7%</td>
</tr>
<tr>
<td>Referral to other HES</td>
<td>1%</td>
</tr>
<tr>
<td>Referral to GP</td>
<td>6%</td>
</tr>
</tbody>
</table>
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
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
A qualitative study of stakeholder views regarding participation in locally commissioned enhanced optometric services

E Konstantakopoulou, R A Harper, D F Edgar, J G Lawrenson

ABSTRACT
Objectives: To explore the general practitioners (GPs)’ views regarding the development of a community-based enhanced optometric service.
Design: Qualitative study using questionnaires and telephone interviews.
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)

Multi-stakeholder perspectives of locally commissioned enhanced optometric services

H Baker, R A Harper, D F Edgar, J G Lawrenson

ABSTRACT
Objectives: To explore the 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.
• 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
Early analysis of GRRS

41% Referred
59% Not Referred

N=670
## 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 (e.g. pseudoexfoliation) with IOPs >22 mmHg on two occasions

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

### Table

<table>
<thead>
<tr>
<th>IOP (mmHg)</th>
<th>CCT &gt;590 micrometres</th>
<th>CCT 555–590 micrometres</th>
<th>CCT &lt;555 micrometres</th>
<th>Any</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;21-25</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Refer if IOP &lt;60</td>
</tr>
<tr>
<td>&gt;25-29</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Refer if IOP &lt;65</td>
</tr>
<tr>
<td>&gt;21-25</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Refer if IOP &lt;80</td>
</tr>
<tr>
<td>&gt;25-29</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Refer</td>
</tr>
<tr>
<td>&gt;30</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Refer</td>
</tr>
</tbody>
</table>

**Note:** 
- Referral criteria are based on the combination of IOP, CCT, and optic disc appearance.
- The decision to refer is made based on the specific combinations of values for IOP and CCT.
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
ESEP Team

Project Leads:
Robert Harper and John Lawrenson

Co-applicants:
David Edgar, Cecilia Fenerty, David Henson, Ian Murdoch, David Parkins, Steve Roberts, Paul Showman, Fiona Spencer, Matt Sutton and Heather Waterman

Researchers:
Evgenia Konstantakopoulou, Paddy Gunn, Jo Marks, Helen Baker, Tom Mason, Hannah Forbes
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

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