



Audit of the Effectiveness of the Wolverhampton Glaucoma Enhanced Case Finding (ECF) Service

At A Glance

Concerns over hospital capacity for glaucoma services and the effectiveness of referrals from optometry were addressed in a collaborative audit which formed the groundwork for a Glaucoma Enhanced Case Finding (ECF) service based in the community. The latest audit examines how effective the ECF service is proving.

Challenge: A retrospective audit in 2017 revealed that 62% of referrals to the hospital glaucoma service were discharged without treatment. This placed unnecessary demand on Hospital Eye Services (HES).

Objective: To enhance the accuracy of glaucoma referrals, reduce avoidable secondary care appointments and streamline patient pathways.

Solution: Implementation of a community-based Enhanced Case Finding (ECF) pathway for glaucoma, delivered by optometrists within primary care settings.

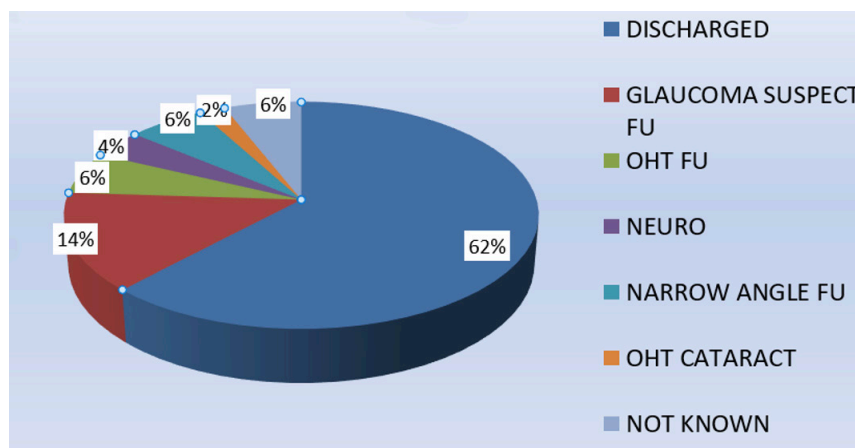
Result: Over 50% reduction in HES glaucoma referrals, reduced false positives, faster access to appropriate care and a potential 10% reduction in hospital activity.

Introduction

In response to concerns over the capacity of the glaucoma service at Hospital Eye Services (HES) in Wolverhampton, and the effectiveness of referrals from optometry, a collaborative audit was undertaken. The findings formed the groundwork for a Glaucoma Enhanced Case Finding (ECF) service based in the community.

An initial review of 50 patient referrals to the hospital glaucoma clinic examined both referral content and patient outcomes. The retrospective audit confirmed that a high proportion of these referrals were avoidable, with 62% of patients discharged without the need for treatment. This highlighted inefficiencies in the glaucoma referral pathways. The system placed unnecessary strain on secondary care and led to avoidable patient delays. These findings reinforced the need for a more robust, community-based referral refiltering to ensure patients were managed appropriately.

Outcomes of Glaucoma Referrals – 2017



The findings formed the basis of evidence presented to commissioners, supporting the simultaneous implementation of a Glaucoma Enhanced Referral Service (GERS), which is a form of Glaucoma Enhanced Case Finding (ECF) pathway, alongside a simple repeat measures pathway in Wolverhampton in 2019. The service was designed to ensure that all patients with signs suspicious of glaucoma could be assessed by optometrists based in the community within primary care settings, rather than being referred directly to HES.

The primary aim was to reduce avoidable referrals to HES by implementing a Glaucoma ECF pathway. The objective was to deliver referral filtering and ensure that only patients requiring specialist hospital care were referred, while also improving patient access to timely diagnosis and management.

Five years after its implementation, a follow-up audit conducted by HES using data between May 2022 and January 2023 demonstrates the effectiveness of the ECF service, highlighting its success in streamlining referrals and reducing the burden on secondary care. The 2024 audit reviewed 40 Glaucoma ECF referrals to the HES.

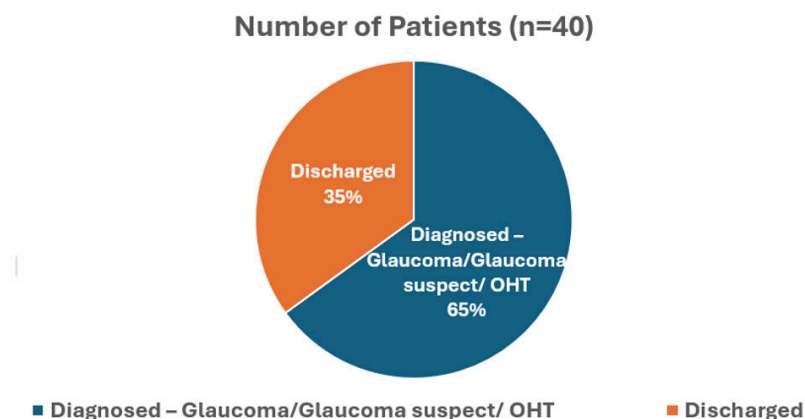
Hospital Eye Clinic Pathways: Of the 40 patients, 28 were first assessed in the Glaucoma Screening Clinic, 9 in the Glaucoma Specialty Clinic and 3 in the General Clinic.

False Positive Rate: 14 patients (35%) were discharged at first visit with no evidence of glaucoma, indicating a relatively low false positive rate.

Waiting Times: The average time from referral to first HES appointment was 4.5 months overall. Patients seen in the Glaucoma Screening Clinic were typically seen sooner (mean: 3.5 months) compared to those seen in General Clinic (mean: 10 months). The mean wait time for the Glaucoma clinic was 4.7 months.

Follow-Up: 26 patients required follow-up in the Glaucoma Screening Clinic of which 20 received a diagnosis of Glaucoma Suspect or Ocular Hypertension (OHT) requiring monitoring but no treatment, 5 were diagnosed with Primary Open Angle Glaucoma, Normal Tension Glaucoma or OHT and required treatment which was initiated at this visit. 1 patient was discharged following Visual Field assessment.

Outcomes for Glaucoma ECF Patients Following Assessment in the HES



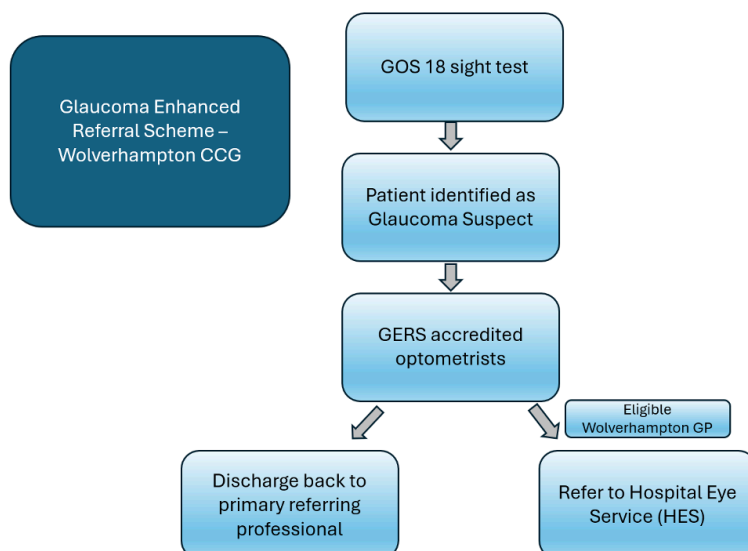
The Glaucoma ECF pathway demonstrated high specificity and effective referral filtering. However, not all ECF referrals were consistently directed to the HES Glaucoma Screening Clinic. The audit recommended that all glaucoma suspect and OHT patients should be assessed in the dedicated Glaucoma screening clinic and that use of the ECF pathway should be encouraged across the region.

What Was Done?

The new pathway was based entirely on the LOCSU Enhanced Case Finding (ECF) pathway, in which patients with signs suspicious of glaucoma were referred to an optometrist with a special interest in glaucoma commissioned to deliver the enhanced primary care service. All participating optometrists completed the College of Optometrists' Professional Certificate in Glaucoma. The Wolverhampton Local Optical Committee (LOC) are fortunate that the Clinical Commissioning Group (CCG) sponsored this initiative, funding 50% of the Professional Certificate fees. The LOC funded the time required to carry out the audit. Only optometrists holding the Professional Certificate and working in an accredited practice are eligible to participate in the Glaucoma ECF. The service was contracted through a prime provider model with Primary Eyecare Services limited (PES).

The LOC co-ordinated both the training programme and negotiations with the CCG, with additional support from LOCSU to ensure successful implementation.

Overview of Glaucoma ECF Pathway



Data from the service prime provider, demonstrates the impact of the service. Between November 2023 and October 2024, 52% of patients seen in the Glaucoma ECF were discharged back to routine care while the remaining 48% were appropriately referred to the HES Glaucoma Screening Clinic.

Importantly, patients assessed in the ECF pathway benefit from more rapid access to care. The service ensures all appropriate tests are completed on the same day, allowing for a more efficient assessment and diagnosis process. The aims of the HES audit were both to assess effectiveness of referrals and how they were managed upon arrival at HES. Patients seen in the Glaucoma Screening HES Clinic had all the tests completed in a single appointment, whereas those referred to the 'general clinic' typically required multiple HES appointments.

Furthermore, the service has resulted in a much higher specificity of referrals into HES. High specificity refers to the ability of a referral or diagnostic system to correctly identify patients without a disease or condition. In the context of the Glaucoma ECF pathway, high specificity means most of the patients referred to HES genuinely need specialist care.

It reduces avoidable (false positives), meaning fewer patients are sent to secondary care who are later discharged without treatment.

As a result of the ECF service, **referrals into HES Glaucoma clinics have fallen by over 50%**, easing the burden on hospital services and ensuring that secondary care resources are directed to those who need them most.

Furthermore, an analysis by Black Country LOC indicates that local Hospital Trusts may anticipate up to a **10% reduction in activity** following the implementation of the Glaucoma ECF service.

Conclusion

The Wolverhampton Glaucoma Enhanced Case Finding Service demonstrates the value of a community-based ECF model delivered by optometrists within primary care settings in improving referral quality and reducing unnecessary secondary care demand. By ensuring referral filtering and timely access, the service enhances patient care and contributes to the sustainability of HES glaucoma services. Ongoing evaluation will continue to assess long-term impact, including potential expansion to areas.

LOC Case Study – Wolverhampton Local Optical Committee

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