



# Reimagining macular referrals in Bristol

May 2025

## Summary

Since July 2024, Bristol Eye Hospital (BEH) has been piloting an Enhanced Macular Referral Service. This sees community optometrists send the clinical details, scans and summary healthcare records of patients with urgent and routine macular pathology to the BEH retinal team for remote assessment. The referring optometrist is given feedback via the referral software straight after the clinical opinion, while patients and GPs receive a letter detailing the clinical decision.

As the majority of patients now avoid a hospital appointment, the new pathway streamlines the medical retina patient experience and makes better use of limited clinical hours and resources. As a result, the pilot is expected to roll into the commissioned pathway.

**“It is incredibly useful to have feedback regarding the referral and to know the outcome in such a speedy time.”**

*Referring optometrist*

## The challenge

Before the pilot, all urgent and routine macular referrals required a visit to the hospital eye service. Optometrists could not submit the full Digital Imaging and Communications in Medicine (DICOM) optical coherence tomography (OCT) scans for review by ophthalmologists, and all non-urgent referrals had to be made by GPs via the NHS electronic referral system (ERS) – a far from efficient use of GPs' time.

Audits revealed that only 20 to 30% of the urgent referrals for possible wet age-related macular degeneration (AMD) – which were reviewed in face-to-face triage clinics – were confirmed to have the condition. Many unnecessary visits were, therefore, taking place. As well as being potentially stressful and onerous for patients (especially the elderly), this was placing unnecessary pressure on face-to-face clinics.

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## The solution

Funded by NHS England, the new pathway – codeveloped by Avon Local Optical Committee, the integrated care board (ICB) and BEH – uses bespoke software that allows optometrists to send full DICOM OCT scans and colour photographs via Primary Eyecare Services' (PES) secure IT system for remote review as part of the referral. These images are imported into the hospital's data management platform for future reference. The referral arrives at the hospital via the NHS ERS with the patient summary care record attached, avoiding the need for GP involvement. PES holds a contract with the ICB to coordinate the payment of £30 for each referral to the community optometrists. The referral and clinical decision are stored in the hospital's electronic patient record (EPR) system, and the clinical activity is logged in the hospital patient administration system.

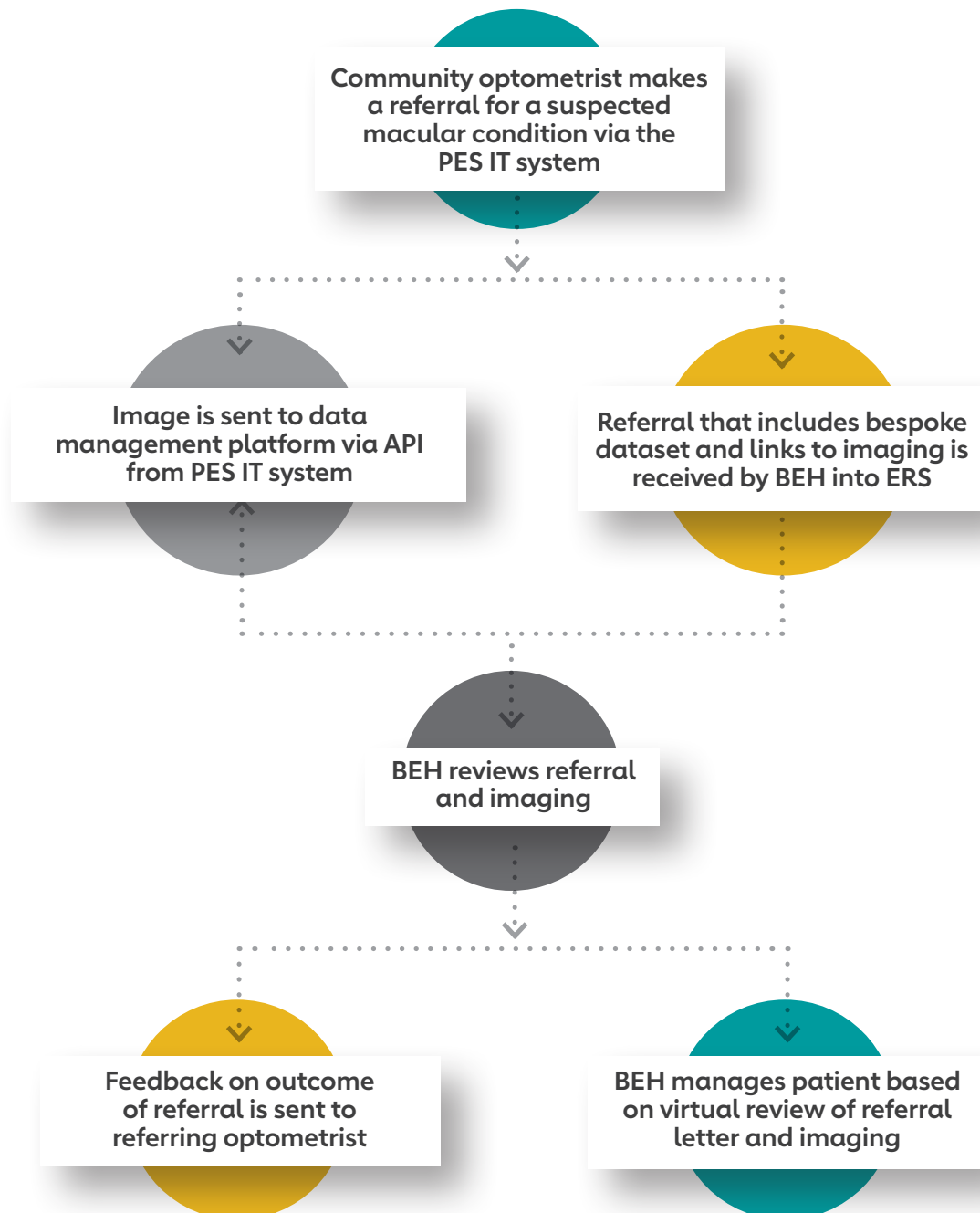
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Only  
**20–30%**  
*of patients referred for urgent AMD  
assessments had the condition*

**“An important and novel element was getting the referral software to communicate with the data management platform so that the images could be transferred across, facilitating future comparison.”**

*Clare Bailey, consultant  
ophthalmologist, BEH*

**Figure 1:** The Enhanced Macular Referral Service pathway



For confirmed wet AMD cases, medical retina specialists promptly contact patients and book them directly into one-stop treatment clinics within one week. For routine cases, patients are assessed much faster than they would be were they to have to wait for a face-to-face appointment.

## Outcomes and impact

Although the pilot is ongoing, the following positive results have already been observed:

- 1. Improved clinical efficiency and patient experience.** By facilitating seamless data transfer from optometrists to BEH, the new pathway has made ophthalmic information available to specialists for remote assessment. Images are reviewed within one working day of receipt – shortening the time patients need to anxiously wait for a clinical opinion and providing them with faster access to treatment – and more patients are now being reviewed per session overall.
- 2. Reduced administrative burden for GPs.** By making it possible for optometrists to refer patients directly to specialists at BEH, the new pathway has freed up GP time.
- 3. Decreased environmental impact.** By enabling remote review, the new pathway has allowed nearly three quarters (74%) of patients to avoid an unnecessary hospital visit and has significantly reduced the number of face-to-face wet AMD triage clinics. The decreased travel and footfall has reduced the carbon footprint of the healthcare system.
- 4. Enhanced digital records and financial processes.** By logging all patient consultations in the hospital's records and processing referrals via the ERS, the new pathway has ensured that all cases and review clinics are tracked. This prompts PES payments to participating optometry practices and payment by results fee disbursement to BEH.
- 5. Strengthened primary care knowledge.** By facilitating the provision of clinical feedback on referrals, the new pathway has helped to boost community-based optometrists' clinical knowledge. This should, in turn, lead to refined future referrals.

**“A clinician can see 15 patients per clinic for remote assessments, which is considerably more than in the previous face-to-face review pathway.”**

*Clare Bailey, consultant ophthalmologist, BEH*

**“It saves me having to travel by bus or park somewhere, and saves me taking a day off.”**

*BEH patient*

## Key takeaways for other units

BEH's Enhanced Macular Referral Service demonstrates a cost-effective approach to improving services that has potential for broader adoption across NHS ophthalmology units – with local adjustments to reflect hospitals' individual IT systems and existing pathways.

Its success was driven by **strong leadership** and close working between hospital management, the ICB, NHS England and local optometry networks. Long-standing relationships with the local optical committee helped to foster a **cross-sector vision** for more effective integrated eye care, and optometry practices were encouraged to sign up to the pathway via regular updates and educational events rather than mandatory participation.

**High-quality images** were also key. Without these, reviewers were unable to make a clinical decision and cases were processed via the old pathway. In such instances, the referring optometrist did not receive the referral fee.

The planned second phase of the scheme is to make eye hospital images and records available for viewing by community optometrists. This would enable them to determine whether a patient is already under the care of the hospital eye service and, if so, whether there have been any changes between scans – likely reducing referrals. The phase would require the hospital EPR and data management platform to move to a cloud-based system, something that is now possible following a recent upgrade of the EPR system.

There is also appetite to expand the scalable pathway to encompass other eye conditions, such as for cases with possible optic disc swelling, following further discussions with the local optical committee.

*For further information on this case study, please contact Clare Bailey via [policy@rcophth.ac.uk](mailto:policy@rcophth.ac.uk)*

**“We had a good working relationship with the local optical committee. We all wanted to achieve better shared working.”**

*Clare Bailey, consultant ophthalmologist, BEH*

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