

Case study

Expanding community ophthalmology services and workforce in Leicestershire

July 2026

Summary

Since 2017, the ophthalmology unit at University Hospitals of Leicester (UHL) has expanded its medical retina capacity through a coordinated redesign of estates, workforce and patient pathways.

Faced with rising demand for anti-vascular endothelial growth factor (VEGF) injections and limited clean-room capacity, the team developed community-based injection clinics using suitable GP practice rooms. This increased annual anti-VEGF injection capacity in a stepwise manner, from around 12,000 to approximately 20,000 – a rise of 67%.

At the same time, UHL expanded multidisciplinary roles for non-medical injectors, ophthalmic practitioners and specialist ophthalmic photographers, supported by clear governance, competency frameworks and audit. Imaging-led virtual clinics and virtual screening of new referrals reduced avoidable face-to-face appointments, improved triage and preserved consultant time for higher-risk patients.

The Leicester model improved the management of waiting lists and resulted in high patient satisfaction and workforce retention. It shows how operational innovation, clinical governance and effective leadership can increase capacity while bringing care closer to patients' homes.

"It puts us in a strong place because we know what we're doing now when it comes to moving things into the community."

Zack Sentance, Ophthalmology General Manager, UHL

The challenge

Before the pathway redesign, UHL faced substantial capacity pressures owing to a high local prevalence of diabetes (10.7% versus an average of around 7.9% in England¹) and associated conditions such as diabetic macular oedema, retinal vein occlusion and age-related macular degeneration (AMD). These conditions often require repeated anti-VEGF therapy, creating significant demand for injection services.

The service was constrained by limited hospital clean-room capacity, relying on a single, hospital-based treatment room for all anti-VEGF injections. This capped delivery at around 12,000 injections annually and created substantial pressure on medical retina services, particularly for follow-up patients.

The solution

UHL implemented a multi-strand redesign of its medical retina pathway, combining additional community-based treatment space, expanded multidisciplinary roles and imaging-led virtual care. The approach aimed to increase capacity, optimise clinician time and improve patient flow while maintaining clear governance and clinical oversight. Innovations include:

Community injection hubs

The team explored whether suitable GP practice treatment rooms could be used for anti-VEGF injections. They assessed sites against Royal College of Ophthalmologists' (RCOphth) clinical standards and infection prevention criteria before the first community pilot launched in 2019.

Moving injection services into community settings created additional hospital outpatient capacity and enabled treatment to be delivered closer to patients' homes. The model, which required a consultant, staff nurse, clinic coordinator and operating department practitioner (ODP), later expanded to additional community sites and the East Midlands Planned Care Centre.

Expanded multidisciplinary roles

UHL pioneered the use of non-medical intravitreal injectors in England, developing a standard operating procedure aligned with NICE and RCOphth guidance. Specialist nurses, ODPs, optometrists and allied health professionals were trained to deliver injections within a consultant- and specialty doctor-supported governance framework.

UHL also trained ophthalmic photographers to support virtual medical retina clinics through supervised, competency-based practice. Structured assessment, audit and consultant oversight enabled photographers to progress into specialist ophthalmic photographer roles, while clearly defined escalation pathways maintained clinical governance.

Imaging-led virtual clinics

A virtual triage pathway for new referrals from optometry enabled patients to undergo imaging and visual assessment. Specialist ophthalmic photographers allocated patients to face-to-face review, referral for treatment, or discharge with self-monitoring advice based on their optical coherence tomography findings. Within clearly defined protocols and consultant oversight arrangements, specialist ophthalmic photographers could also determine whether treatment should continue or intervals between treatments could be extended.

“The interest from around the region and from other trusts elsewhere in the UK helped normalise the process and reinforced its value as an innovation we should continue.”

Vasileios Konidakis, consultant ophthalmologist, UHL

Figure 1: Diabetic macular oedema virtual review decision pathway

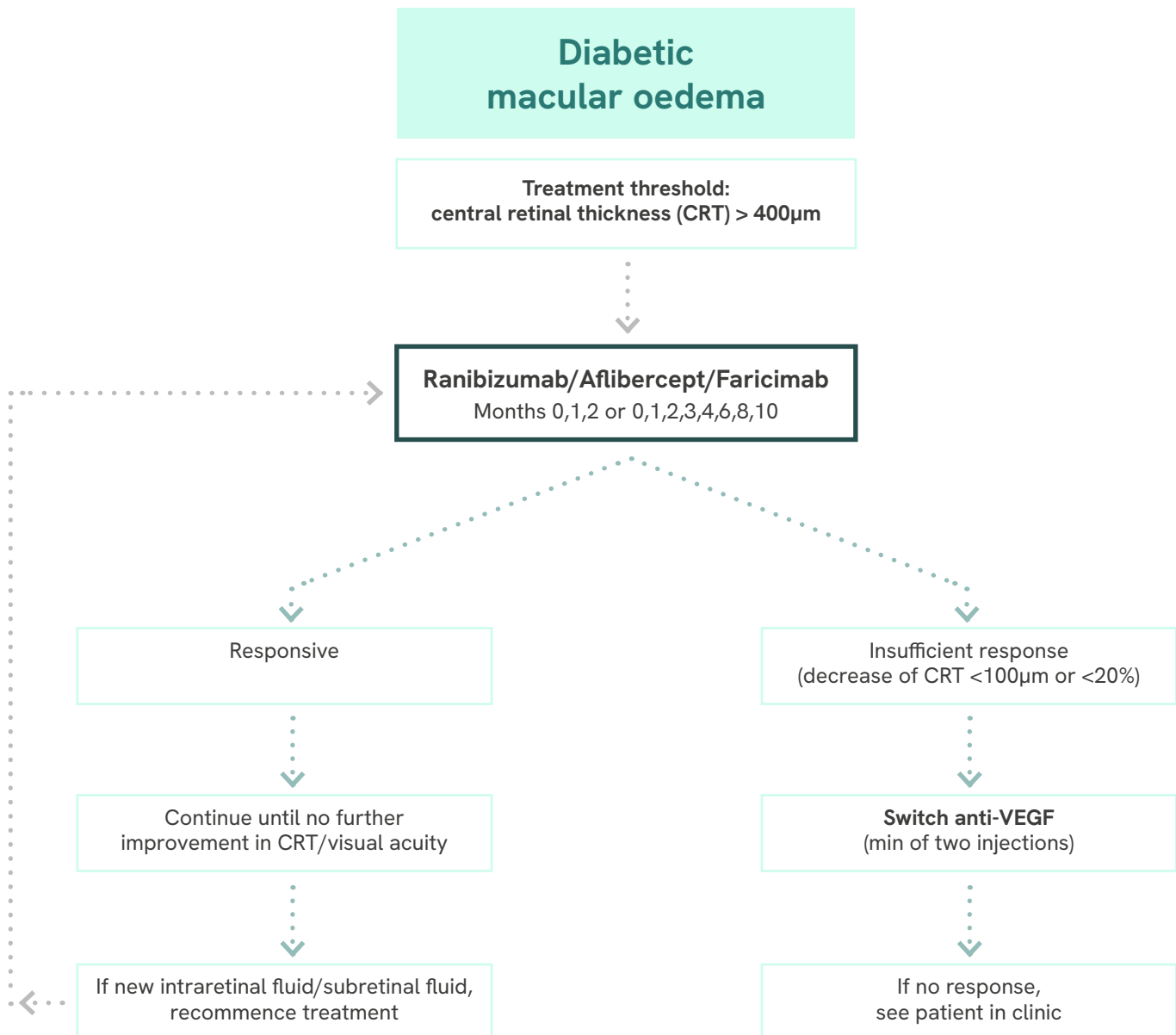
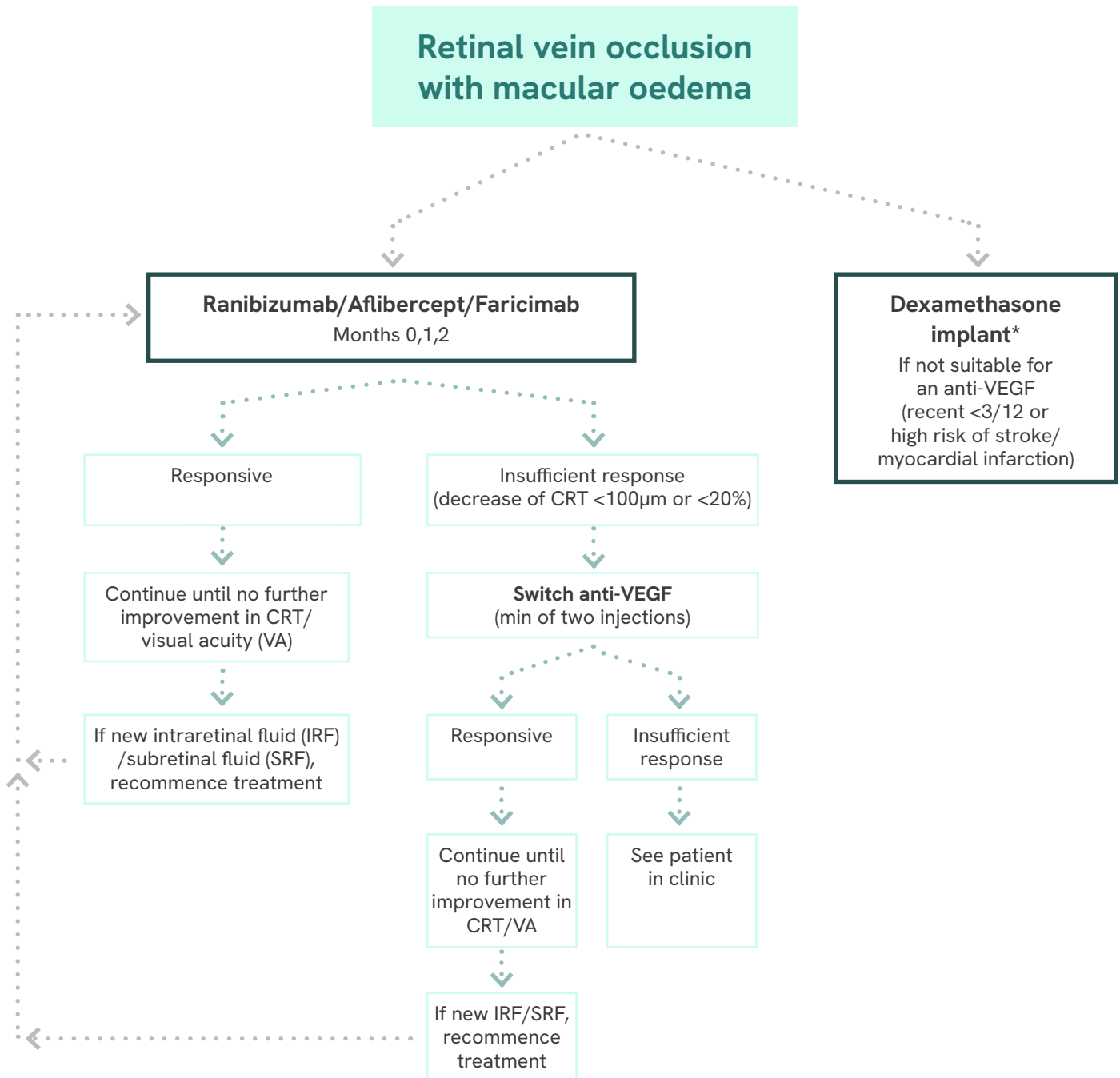


Figure 2: Retinal vein occlusion with macular oedema virtual review decision pathway



Safety escalation

Presence of neovascularisation of the iris, neovascularisation of the angle, neovascularisation of the disc, neovascularisation elsewhere:

- Urgent pan-retinal treatment +/- anti-VEGF
- Urgent appointment in patient clinic/speak with consultant on the day

Outcomes and impact

In 2020, the Leicester retinal team received the UHL NHS Trust's 'Caring at its Best' award in recognition of its innovative ways of working.

- **Expanded injection capacity.** The service has increased anti-VEGF injection delivery to around 20,000 injections per year, supported by community hubs and additional planned care capacity.
- **Reduced waiting lists.** Injection waiting lists have at times been reduced to zero, allowing the service to treat increasing numbers of patients while releasing hospital space for urgent and long-term follow-up care.
- **Expanded specialist roles.** The specialist ophthalmic photographer role has improved job satisfaction and workforce retention by broadening clinical responsibilities within a clearly governed framework, with all remaining in post since their appointment.
- **Safe virtual clinical assessment.** Audits showed 99% agreement between clinicians and photographers during a 300-patient observation period, with no adverse events recorded.²
- **Improved virtual care capacity.** Specialist ophthalmic photographer-led virtual clinics increased activity from 572 to 709 patients between 2017 and 2018, a 24% rise, speeding up triage and reducing avoidable face-to-face appointments.
- **Improved access to urgent care.** The trust consistently achieved the 14-day target for AMD referrals and participated in the 2025 National Ophthalmology AMD Audit.
- **More efficient patient pathways.** Virtual screening clinics enabled direct referral to the vitreoretinal clinic without unnecessary intermediate appointments.
- **Positive patient experience.** Patients reported positive experiences of receiving care closer to home.
- **Enhanced sustainability.** Virtual clinics reduced unnecessary hospital visits and associated travel.

67%

*increase in annual anti-VEGF
injection capacity*

~95%

*reduction in the
anti-VEGF backlog*

99%

*agreement between clinicians
and specialist ophthalmic
photographers*

**"Friendly, happy
and capable staff."**

*Anti-VEGF intravitreal injection
patient, UHL.*

Key takeaways for other units

The Leicester experience demonstrates how coordinated redesign across workforce, estates and patient pathways can expand ophthalmology capacity while maintaining governance and patient safety.

Ingredients for success included:

- **Establishing strong clinical and operational leadership.**
Close partnership between clinicians and managers supported implementation and sustained service change.
- **Building community partnerships.**
Collaboration with GP federations and local boards helped identify suitable treatment spaces and established valuable local primary care connections.
- **Understanding local constraints.**
UHL identified estate, treatment capacity, triage and consultant time as the key limiting factors shaping redesign priorities.
- **Planning virtual pathways carefully.**
Clearly defined responsibilities and scope enabled Leicester's specialist ophthalmic photographer model to be implemented safely and effectively.
- **Embedding governance and competency frameworks.**
Clearly defined training, supervision and escalation processes supported the safe expansion of multidisciplinary roles.
- **Maintaining continual evaluation.**
Ongoing audit and patient feedback strengthened the evidence base for extending the model further.

Elements of the Leicester model have already been adopted by other NHS trusts, including Birmingham and Coventry, demonstrating the wider applicability of community-based and imaging-led approaches to retinal care.

"If a manager has vision, then it is a lot easier to inspire the team around them."

Vasileios Konidakis, consultant ophthalmologist, UHL

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