

Quality matters in the management of serious eye disorders

BY ROD MCNEIL

The author discusses the first quality standard for serious eye disorders from NICE and takes a look at new care models for enhanced service delivery.

Patient backlogs pose risks to patient safety, with research showing that people are losing sight due to hospital-initiated delays. A surveillance study conducted by the British Ophthalmological Surveillance Unit (BOSU) demonstrated that patients within the Hospital Eye Service (HES) are losing vision because of delays in their intended care, the main causes being delayed follow-up or review, as well as delayed treatment delivery [1].

The latest Royal College of Ophthalmologists (RCOphth) workforce census highlights a continuing serious shortage of ophthalmologists, widespread use of locums, as well as many unfilled posts [2]. The majority of responding units (85%) are undertaking waiting list initiatives to attempt to manage demand. At a time when the HES is challenged by increasing demand, measurable quality standards are crucial to identify areas of poor performance or reduced patient safety, noted the RCOphth in a press statement. This article outlines the first quality standard for serious eye disorders from the National Institute for Health and Care Excellence (NICE) and considers practitioner-led initiatives for service improvements in the HES.

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New quality standard for serious eye disorders

The quality standard for serious eye disorders from NICE reaffirms national high-priority areas for quality improvement in the diagnosis and management of cataracts, glaucoma and age-related macular degeneration (AMD), and the prevention of sight loss [3]. The quality standard, which draws on existing NICE or NICE-accredited guidance, reiterates that timely treatment is a key area for quality improvement and underscores the need for both monitoring and treatment delivery at clinically appropriate intervals. Overarching outcomes in the quality standard are preventable sight loss and health-related quality of life.

The quality standard comprises six specific, concise and measurable quality statements:

- Quality statement 1 for referral of chronic open-angle glaucoma and related conditions: Adults with signs of possible glaucoma or related conditions on a routine sight test have additional tests before they are referred for a diagnosis.
- Quality statement 2 for referral for cataract surgery: Adults with cataracts are not refused surgery based on visual acuity alone.
- Quality statement 3 for treatment of active nAMD: Adults with late age-related macular degeneration (wet active) start treatment within 14 days of referral to the macular service.
- Quality statement 4 for monitoring active nAMD: Adults with late age-related macular degeneration (wet active) have monitoring for both eyes.
- Quality statement 5 for reassessment of chronic open-angle glaucoma and related conditions: Adults with chronic open-angle glaucoma or related conditions have reassessment at specific intervals.
- Quality statement 6 for Certificate of

vision impairment: Adults with serious eye disorders are given a certificate of vision impairment as soon as they are eligible.

NICE states that achievement levels of 100% should be aspired to (or 0% if the quality statement states that something should not be done). This may not always be appropriate in practice, and desired levels of achievement should be defined locally taking account of safety, shared decision-making, choice and professional judgement. With respect to resource impact, NICE quality standards should be achievable by local services, and commissioners and providers should aim to achieve the quality standard in their local context.

Consultation comments from stakeholders to the draft quality standard generally supported the six quality statements as reflecting many of the key areas for quality improvement [4]. The focus on increasing prompt referrals, greater accuracy of diagnosis, timely treatment, and supporting consistent monitoring and follow-up was welcomed.

Stakeholders suggested there should be more emphasis on data collection at both national and local level, patient empowerment and dry AMD, with consideration also for people with learning disabilities. Outcome data are not routinely collected at Clinical Commissioning Group (CCG) or provider level and attempts should be made to ensure consistency of data capture. Where possible, appropriate measures should be introduced into the National Ophthalmology Database Audit.

General concern was raised about the need for additional funding and capacity to achieve most of the quality standards, with understaffing in the HES a specific issue. Stakeholders including the RCOphth felt statements two to six would be challenging to achieve due to lack of resources and / or capacity to meet demand in hospital eye services. It was suggested that community

optometry services could support the HES in meeting demand. The provision of Eye Clinic Liaison Officers (ECLOs) and ECLO referral were also emphasised. Currently close to half of the largest 150 eye departments in England do not have access to an accredited ECLO service, according to estimates from Royal National Institute for the Blind (RNIB). Stakeholders suggested that quality statements should also be included for assessment and management of diabetic retinopathy and retinitis pigmentosa.

What the quality statement means for referral for cataract surgery

The decision to undertake cataract surgery should be based on discussions with the individual about the effect of cataract on their quality of life, the risks and benefits of surgery and what may happen if they choose not to have surgery. Visual acuity should not be used as the sole basis for deciding to refer for or perform cataract surgery. Moreover, the decision to undertake cataract surgery should be made on the same basis for first and second eyes.

NICE recommends that the decision to refer and perform surgery should be based only on shared decision-making with patients and their families or carers, taking into account their symptoms and clinical situation, effects on activities and quality of life, and the risks of surgery. However, commissioners are still inappropriately rationing cataract surgery in the majority of eye units, despite NICE guidance recommending that cataract surgery should not be restricted on the basis of visual acuity thresholds. The conclusions from the NICE guidance-related Health Economic Assessment were that, for the majority of patients with symptomatic cataract, it is clearly optimal to offer surgery, and it is not cost-effective to delay this until a visual acuity threshold is met. This is true whether for first- or second-eye surgery.

A follow-up survey of clinical leads by the RCOphth one year after publication of

the NICE cataracts guideline NG77 found that 62% of responding units were still restricting access to cataract surgery. In a press statement in April 2019, the RCOphth noted: "As demand for surgery is predicted to rise by 25% over the next 10 years and by 50% over the next 20 years, it is crucial that commissioners and policymakers act now to ensure sustainable, equitable and efficient cataract services. Undertaking cataract surgery at the appropriate time for patients will have widespread health and economic benefits and will be increasingly important as we all live longer in supporting the population to age well." The RCOphth added that the use of non-hospital professionals in cataract pathways is supported by the Clinical Council for Eye Health Commissioning's (CCECH) SAFE Framework [5].

Glaucoma case finding and reassessment prioritised

Additional tests to be undertaken before referral to the HES with suspected glaucoma or related conditions include:

- central visual field assessment using standard automated perimetry (full threshold or supra-threshold)
- optic nerve assessment and fundus examination using stereoscopic slit-lamp biomicroscopy, and optical coherence tomography (OCT) or optic nerve head image if available
- Intraocular pressure (IOP) assessed using Goldmann-type applanation tonometry
- peripheral anterior chamber configuration and depth assessments using gonioscopy or, if not available or the person prefers, the van Herick test or OCT.

This means that healthcare professionals such as community optometrists should ensure additional tests are performed when signs of possible glaucoma are detected on a routine sight test and refer on the basis of these results. This is intended to ensure that adults with chronic open-angle glaucoma

or related conditions have access to prompt diagnosis and treatment, and people who do not need referral avoid unnecessary investigations, reducing rates of false-positive referrals to secondary care. Reassessment of patients with chronic open-angle glaucoma or related conditions is important for identifying clinically significant changes and supports provision of tailored treatment in response to disease progression and maintaining consistent IOP levels to reduce the risk of significant sight loss. Healthcare professionals such as ophthalmologists, advanced nurse practitioners, optometrists and orthoptists should carry out reassessment at specific, clinically appropriate intervals, according to the individual's risk of progressive sight loss. The scope of the NICE Glaucoma Guideline Update NG81 was extended to cover referral, including thresholds for onward referral [6]. A single IOP threshold of ≥ 24 mmHg is recommended for the treatment of ocular hypertension. For monitoring, reassessment at chronic disease monitoring visits for glaucoma and related conditions is emphasised with a view to encouraging flexible clinical judgement in regard to the frequency of monitoring and cessation of treatment when the perceived risk to a sighted lifetime is low. A discharge summary should be given to people who have been assessed and discharged to primary care, with a copy sent to their GP and, with patient consent, copy of the relevant information to the primary eye care professional nominated by the patient.

Treatment and monitoring of active neovascular AMD

The 14-day referral to treatment target for adults with active nAMD reflects the importance of prompt early intervention, with some eye units aiming for treatment within 48 hours of referral [7]. Minimising delays in starting treatment increases the chances of preserving vision and thereby maintaining health-related quality of life of adults with active nAMD. Agreed hospital trust protocols should ensure that adults

Table 1: Certification of sight impairment: eligibility grouping / classification [8]*.

Classification of sight impaired	Classification of severely sight impaired
Group 1: Offer to certify as sight impaired: people who are 3/60 to 6/60 Snellen (or equivalent) with full field	Group 1: Offer to certify as severely sight impaired: people who have visual acuity worse than 3/60 Snellen (or equivalent)
Group 2: Offer to certify as sight impaired: people between 6/60 and 6/24 Snellen (or equivalent) with moderate contraction of the field, e.g. superior or patchy loss, media opacities or aphakia	Group 2: Offer to certify as severely sight impaired: people who are 3/60 Snellen or better (or equivalent) but worse than 6/60 Snellen (or equivalent) who also have contraction of their visual field
Group 3: Offer to certify as sight impaired: people who are 6/18 Snellen (or equivalent) or even better if they have a marked field defect, e.g. homonymous hemianopia	Group 3: Offer to certify as severely sight impaired: people who are 6/60 Snellen or better (or equivalent) who have a clinically significant contracted field of vision which is functionally impairing the person, e.g. significant reduction of inferior field or bi-temporal hemianopia

*The Certification groupings apply to the better seeing eye and are used for guidance purposes only.

“Agreed hospital trust protocols should ensure that adults with active nAMD start treatment within two weeks of referral to the macular service”

with active nAMD start treatment within two weeks of referral to the macular service. Clinical commissioning groups are advised to monitor service providers to ensure this target is achieved.

Regular monitoring of both eyes of patients with unilateral AMD is necessary to ensure early detection and treatment of new choroidal neovascularisation in untreated fellow eyes. NHS hospital trusts should ensure that they have agreed protocols for adults with late AMD (wet active) to have ongoing monitoring of both eyes at clinically appropriate intervals, determined by the healthcare professional responsible for planning the patient's care. Continued treatment also should be delivered at clinically appropriate intervals. Home monitoring and regular eye tests can also help

identify changes that may suggest increasing nAMD activity.

Certificate of vision impairment once eligible

The quality standard that adults are given a certificate of vision impairment (CVI) as soon as they are eligible is intended to allow earlier access to valuable services and support, which can help people retain or regain their independence and improve their wellbeing and quality of life (Table 1) [8]. The CVI formally certifies someone as sight impaired (previously referred to as partially sighted) or as severely sight impaired (previously referred to as blind) and, with the permission of the patient, the CVI is shared so that their local authority or related organisation is able to offer the benefits of registration on a local sight register and to

ensure support and services are accessible.

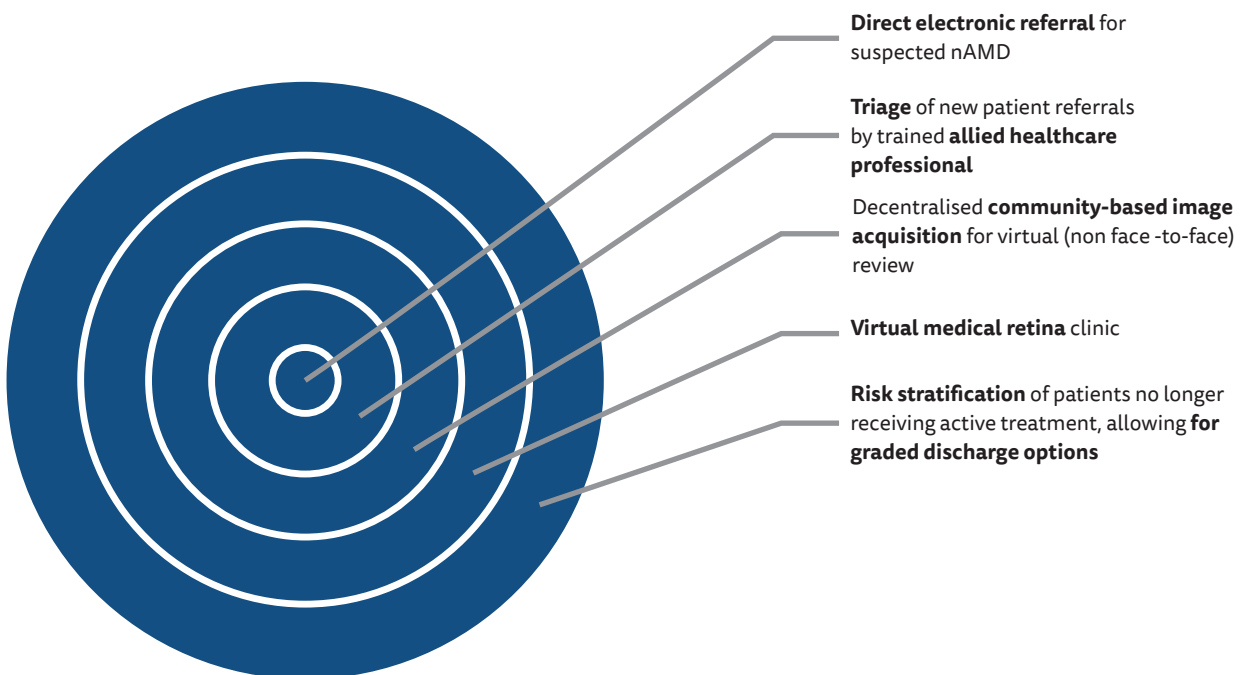
The CVI acts as a formal referral for a needs assessment when shared with local authority social services. The quality statement means that healthcare professionals (optometrists, and ophthalmologists, orthoptists and nurses working in secondary care) need to ensure that those with serious eye disorders know about the benefits of certification and that they can have a CVI if they choose as soon as they are eligible, which includes while they are having treatment.

Support for transforming ophthalmology elective care services

In a separate collaborative initiative, NHS England has launched an elective care transformation programme (ECTP) reviewing ophthalmology and other services, to support local clinicians and commissioners to help manage the rise in referrals and consider approaches and interventions to ensure that patients see the right person in the right place, first time.

A guidance handbook has been created to support the improvement of local health and care systems for ophthalmology elective care services (Table 2) [9]. The national ophthalmology challenge is acknowledged:

Figure 1: Illustrative opportunities for service improvements in the management of neovascular AMD [10].



Abbreviations: nAMD, neovascular age-related macular degeneration.

Table 2: Overview of opportunities for improvement in ophthalmology from the Elective Care Development Collaboration [9].

Theme	Intervention	The opportunity
Rethinking referrals	Standardised cataract referral form	The use of standard referral forms means that practitioners should have access to relevant guidance and information when making or receiving referrals. Referral quality should be more consistent and the number of unnecessary referrals should reduce. This should mean patients are seen as quickly as possible and conversion rates for those who are referred should increase.
	Direct referrals from accredited optometrists to secondary care	When community optometrists are able to make direct referrals to secondary care, patient pathways should be shorter, improving the experience of care. GPs should spend less time processing referrals and more information should be included in referrals. This should make referrals more efficient, enabling more decisions to be made in a first consultation.
	Triage of referrals to secondary care	Triaging referrals into clinics appropriate to the patient's level of risk means that patients should be seen more quickly, by the most appropriate practitioner. Practitioners should see the right patients at the right time and so 'false positive' referrals and patients who do not attend (DNAs) should decrease.
Shared decision-making	Patient decision aids	If patients have better quality information about cataract surgery before they are referred to secondary care, they should be able to make an informed choice about surgery prior to attending an appointment. This should mean that practitioners spend more time seeing the right patients at the right time as unnecessary appointments decrease, reducing the waiting time for surgery.
Transforming outpatients	Virtual clinics	If diagnostic information is collected in a community setting and reviewed by the appropriate person virtually (rather than at in-person appointments) patients should be able to access the care they need closer to home. This should mean that practitioners can use their expertise in appropriate care settings which may reduce referral times and the need for follow-up appointments in hospital.
	Failsafe policies and processes	Failsafe policies and processes should reduce the likelihood of patients becoming 'lost or delayed follow-up' within hospital eye services and mean that they receive appropriate review and treatment at the right time for them. This should lead to fewer patients losing their sight as a result of hospital-initiated delays. Practitioners will see the right patients at the right time and backlogs for follow-up appointments within hospital eye services should reduce.

ophthalmology referrals to HES rose over 12% from 2013/14 to 2017/18 and account for over 8% of outpatient appointments. Furthermore, lack of IT connectivity causes difficulties receiving referrals directly from optometrists and sharing information for advice, guidance and shared care.

The guidance notes the following opportunities to ensure patients receive assessment, treatment and care in the most appropriate setting, first time:

- Improving referral processes to remove unwanted variation.
- Improving processes in outpatient clinics, focusing on efficient and safe discharge policies and risk stratification, shared care protocols and booking / rebooking patients for follow-up.
- Addressing lack of capacity, optimising the skills and expertise available with multidisciplinary working across primary and secondary care.
- Improving data collection and coding, ensuring intended dates for treatment and risk of harm can be recorded and the prime referrer can receive feedback.
- Engaging and empowering patients to self-manage, supporting patients with co-morbidities.

New care models for enhanced service delivery

Several practical steps for service improvement in the management of nAMD are outlined in Figure 1, many of which may be attainable utilising existing resources [10]. Virtual clinics, for example, have been successfully implemented across several subspecialties, including medical retina, glaucoma and urgent care ophthalmology. Access to an integrated IT platform and appropriate training, audit and governance need to be established [10]. Research shows broad support from patients for virtual clinic review in place of face-to-face clinic appointments [11]. Triaging new medical retina referrals using a virtual clinic with multimodal ultra-widefield and OCT imaging allows those patients with treatable disease to be seen promptly in the medical retina service [12].

Glaucoma virtual clinics are utilised or in development by a large proportion of HES units, according to results of a recent national survey of clinical leads [13]. Most units implemented virtual clinics to manage follow-up patients but a significant proportion were using the virtual clinic model to assess new patients. The most common reasons stated for not adopting a glaucoma virtual clinic related

to staffing, insufficient space, or time and funding to train staff. The RCOphth issued in 2016 useful guidance on standards for virtual glaucoma clinics [14].

The glaucoma services team at South Warwickshire NHS Foundation Trust developed a triage and referral tier system to increase capacity for review of new glaucoma patients and follow-up visits, allowing specialist consultants to focus on more complex patients whilst optometrists and ophthalmic technicians saw lower-risk patients. The implementation of a complete service delivery redesign included ophthalmic technician-delivered new patient assessment with virtual consultant review; optometry-delivered follow-up care; consultant clinics for new and follow-up complex cases, postoperative and laser review; a nurse-led medication clinic and the availability of virtual review for all patients seen by non-medical clinicians as required. A structured competency programme was introduced for the ophthalmic technicians and optometrists involved in the service model. The new glaucoma services model achieved significant increases in new patient and follow-up capacities compared with that attained under the former service model.

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TAKE HOME MESSAGE

- The NICE Quality Standard for cataracts, glaucoma and neovascular age-related macular degeneration focuses on increasing prompt referrals, greater accuracy of diagnosis, timely treatment, and supporting consistent monitoring and follow-up at clinically appropriate intervals.
- These quality standards should be achievable by local services, and commissioners and providers should aim to achieve the quality standard in their local context.
- Measurable quality standards are crucial to identify areas of poor performance or reduced patient safety.
- Routine collection of outcome data collection at both national and local provider level is necessary and attempts should be made to ensure consistency of data capture.
- NHS England's Elective Care Transformation Programme highlights opportunities for improvement in ophthalmology.

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