

The ROYAL COLLEGE of
OPHTHALMOLOGISTS

Sustainable Ophthalmic Pathways

Supporting commissioners, providers and professionals with the most recent recommendations to ensure efficient and equitable ophthalmic services

April 2018

Cataract

In 2015-6, over 400,000 cataract operations were performed in England and Wales. With an ageing population, the number of cataract operations required is expected to increase by 25% over the next 10 years, but the predicted growth of consultant ophthalmologist numbers is under 10%.

Cataract surgery is an extremely effective and safe operation with at least 95% of patients expecting visual acuity outcomes better or the same as their pre-operative outcomes and an overall serious complication rate of less than 2%. Patients often find their lives transformed following cataract surgery, particularly in those with blinding cataract (visual acuity less than 6/60) who, surprisingly, make up 11% of patients who receive surgery in the UK.

There are many guidelines, standards and recommendations about cataract surgery and it can be difficult for commissioners and providers to translate all these into locally relevant plans for developing sustainable cataract services in a time of limited resources and increasing demand for ophthalmic healthcare.

Key messages

- Cataract surgery is the most common operation performed in the UK
- Cataract surgery changes people's lives
- Need is high and increasing with ageing population
- Commission the whole cataract pathway in a planned way consulting all stakeholders
- Utilise primary care optometrists to support pre- and post-operative care



In 2015-16 over
400,000
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Contents

Access to surgery	4
Pre-operative pathway	8
Cataract operating lists	10
Before the list on the day of surgery	10
Staffing	11
Assessing efficiency	11
Training	11
After the list	12
Evidence from other countries and other surgical specialties	12
Post-operative pathway	14
Quality standards and indicators	17
Standards and guidelines	19
Other reading	20

Access to surgery

Key messages

- Cataract surgery is highly cost effective in almost all cases of cataract causing symptoms affecting the patient's quality of life
- Access to cataract surgery should not be limited by any specific visual acuity or quality of life measure, as there is no one measure that reliably predicts the degree of benefit
- Do not use individual funding requests to limit access for surgery
- Do not refer for cataract surgery to one provider where another provider is caring for other ocular disorders (co-morbidities) unless there is full consultation and information sharing
- Do not refer for cataract surgery unless the patient is symptomatic and explicitly wishes surgery, being aware of the individual risks and benefits
- Ensure access to surgery is equitable for all patients

Recent NICE guidelines on cataract surgery clearly show that there is no evidence that delaying surgery on the basis of visual acuity will reduce costs. In fact, the Quality Adjusted Life Years (QALY) lost by delaying surgery until a particular visual threshold is met, make this a more expensive option in health economic terms. Some of the costs associated with delayed surgery relate to increased chances of falls, depression, early dependency on care homes and the inability to work. This applies to first and second eyes. The only exception is patients who have a very limited life expectancy (aged 90+) who have a good visual acuity and/or high risk of complications or low chance of improvement and are hence unlikely to live to meet the threshold or gain from cataract surgery at that time. Referrals should be based on whether patients have cataract related symptoms in the presence of significant cataracts that are affecting their quality of life. The use of individual funding requests (IFR) to limit access is inappropriate and diverts precious clinician resource to administration and usually only defers the surgery slightly.



At the time of referral, the patient should fully understand what the cataract procedure involves, including recovery time, pain management and the potential risks involved; standard written information should be provided after this discussion. A checklist can be used by referrers to ensure this process has taken place.

Most cataract referrals are made by the patient's optometrist. The patient should be referred to the unit of their choice. If the patient is under the current care of an eye unit, that unit should be considered the first choice or at least be informed and consulted about the referral. Cataract surgery performed without reference to ocular co-morbidities increases the risk of surgery and a poor outcome.

Feedback to referrers about the decision to operate should occur. Collection of data about conversion rates for individual referrers would help with ensuring consistency of referrals and the management of outliers.

Enablers

- Use shared decision making tools
- Ensure patients informed about and fully understand the procedure, including risks and recovery
- Ensure that community optometrists and general practitioners are aware of the impact of inappropriate referrals on the hospital eye service
- Provide a mechanism for surgery providers to feedback post-operative results to primary care providers
- Ensure appropriate information sharing between providers

Barriers

- Commissioners setting visual acuity (VA) thresholds for referral
- VA used as the only indicator for surgery rather than patient symptoms, and the impact on their quality of life and lifestyle

Patient story: Access to cataract surgery for vulnerable groups



A lady in her 80s with advanced dementia living in a residential care home in the North East Region of England was recruited into the PrOVIDe study* by the family carer who was able to consent on the patient's behalf. This patient had

been seen by her community optometrist who had advised her family carer that, although she had bilateral cataracts, there was nothing that could be done due to the patient's relatively advanced dementia.

Her activity levels had dropped as her vision had declined, and she had become less settled and her appetite had reduced. Following a discussion with the family, the study optometrist spoke to the local ophthalmologist and then organised a referral to the secondary care unit. The patient was assessed and the risks and benefits of the procedure explained in consultation with the family. Taking into account that the patient was not able to provide valid

consent for herself due to reduced capacity, the family decided that the patient would be listed for a simultaneous bilateral cataract extraction under general anaesthetic. After recovery from the operation, the participant returned to her old activities, her appetite returned and her mood was noticed to be much improved by her carers. All involved felt that this lady's quality of life was greatly improved by her access to surgery.

It is important that every effort is made to ensure patients with reduced capacity, including people with learning disabilities and dementia, are offered equitable access to cataract surgery where appropriate.

This group of people have a higher than average rate of visual problems including treatable cataract and should receive regular eye assessments by individuals who are trained to understand this group's needs.

College survey of clinical leads



The Royal College of Ophthalmologists surveyed the 140 ophthalmic clinical leads in England and Northern Ireland in December 2017 on restrictions affecting access to cataract surgery; 87 replied, a response rate of 62%.

Key findings*

For first eye surgery, 34% had no restriction to access, 62% had thresholds of moderate visual acuity reduction (vision of 6/9 or 6/12 or worse), but 4% had thresholds of marked acuity reduction, that is 6/18 or worse.

For second eye surgery, the requirements were often stricter. Approximately one third of eye units had no restriction for second eye surgery, in 45% moderate acuity reduction and 20% had thresholds for marked visual acuity reduction. In units where it is harder to access first eye surgery, there was a tendency for the access to second eye surgery to be even more restrictive.

Administering access and monitoring of access

The majority of units, 73%, had no specific monitoring of adherence, in 22% clinicians needed to complete a short tick box form, and 5% use lengthy individual funding request (IFR) forms.

Where there were visual acuity restrictions, approximately 20% had no alternative access route, and 80% did. Of those who had alternative criteria, two thirds are based on other symptoms or clinical requirements (such as glare, inability to work or drive, surgery needed to manage other conditions eg glaucoma or diabetic retinopathy screening). Most requirements were either managed by clinicians or using a simple tick box form, but one third were required to complete a lengthy IFR form.

Conclusions

The majority of units are being asked by commissioners to restrict access to surgery based on visual acuity thresholds, despite the fact that the recent NICE cataract guidelines demonstrates that this is neither good practice nor cost effective. The use of criteria is variable and seems to have no clear logic and is not being monitored consistently. The survey suggests that clinicians are having appropriate discussions with patients and not over-providing surgery. However, the process of attempted rationing is delaying surgery and creating an unnecessary administrative burden which takes clinicians away from caring for patients and puts further strain on already stretched ophthalmic services.

*Data has been rounded up

Clinical Leads Individual Funding Request Survey
December 2017

www.rcophth.ac.uk/2017/11/cataract-rationing-survey-reveals-66-of-responding-eye-units-have-some-restrictions-to-access-surgery/

Case study 1: Patient referred to AQP for surgery whilst under the care of another provider for chronic eye condition

A consultant ophthalmologist from a large secondary care ophthalmology unit in the North of England said “I had the situation of a patient with known primary open angle glaucoma under my care, who was sent by their optometrist following a routine refraction appointment to another, AQP, provider for cataract surgery. At her last glaucoma clinic appointment mild lens opacity had been noted but she was not being considered for cataract surgery at that point.

There was no liaison with her attending glaucoma team regarding this; consequently we have no information regarding how she was managed at the time of surgery or how her IOP was monitored.

The issue came to my attention when the lady had post-operative problems from drop toxicity.

Not only was the post-operative problem not managed by the AQP performing her cataract surgery but we lost the opportunity to consider additional glaucoma procedures to aid control of her IOP simultaneously with her cataract surgery.”



Pre-operative pathway

Key messages

- Commission a referral pathway involving primary care optometrists to reduce unnecessary referrals
- Commission primary care optometrists to undertake pre-operative assessments involving an extended, dilated examination and to complete an enhanced referral form
- The primary care assessment should include a discussion of the risks and benefits of surgery, post-operative refractive aim and highlight significant comorbidities and increased risk factors for the patient
- The primary care optometrists should have close links with surgical providers for feedback, education and clinical governance
- Fund the primary care optometrist for this assessment, whether the patient is referred or not. This can be commissioned by the CCG or through the trust
- The patient should meet their ophthalmic surgeon before the operation, either at the pre-operative outpatient clinic or on the day of surgery

To set up this pathway, firstly meet with all local optometrists who want to become accredited to participate (via the local optometric committee (LOC)). Educate them on who should be referred, what should be discussed with the patient and highlight important factors that should be included in the enhanced referral. A specific enhanced referral form can be created to include relevant information.

Secondly, discuss funding the pathway with the CCG or the secondary care provider. £45 is an average fee for the dilated assessment. The enhanced referral pathway can reduce false positive referrals from 50% to less than 15%, which frees up funds for the CCG and enables doctors or other hospital staff to be used for other clinics by reducing the numbers of patients seen unnecessarily in the cataract clinic.

Direct listing, from an enhanced referral form, has been adopted in some areas (eg Bedford, Huntingdon, Peterborough and Potters Bar) where hospital optometrists actively engage with local community optometrists to ensure good quality information in the referrals. Direct listing reduces the numbers that have to attend the cataract clinic by at least 50%, and trained nurses can perform the pre-operative assessment, biometry and initial consenting discussion in clinics approximately 2-3 weeks before surgery.

Enablers

- Engagement and training of local optometrists via the LOC and an accreditation process producing a local directory of approved optometrists
- GPs and roving locum optometrists, who have not been part of the accreditation process, should not refer a patient for cataract surgery without an enhanced assessment from an accredited optometrist. Close links with surgical providers/secondary care for information exchange, education, feedback, clinical governance, agreed protocols and dealing with complaints and incidents are key to many of the most successful existing pathways
- An optometrist based at least partly in secondary care to co-ordinate the pathway and facilitate relationships between primary and secondary care



Barriers

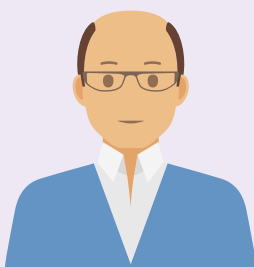
- Poor relationships between community optometry and secondary eye care
- Ophthalmologists' perceptions that optometrists are not capable of doing this work thoroughly and safely and that outcomes may not be as good with community optometrist enhanced referral. NB This can be refuted by interactions with ophthalmologists elsewhere who work successfully this way
- Fear of overuse of pathway and claiming fees for non-referred patients
- Fear of perverse incentive to over-refer if fees only payable for assessments leading to referral

Top tips from successful pathways

- Invite all local optometrists to come and observe the hospital end of the cataract pathway as part of their accreditation process (including biometry/pre-operative assessment and observing in theatre for at least one case from arrival to departure)
- Try and get at least one optometrist accredited from every practice in the local catchment area
- Inform optometrists in the factors that affect the risk of intra-operative complications and post-operative refractive outcomes, explaining how to manage patient expectations
- Meet local optometrists once a year to feedback on the pathway and to develop and expand their skills. This will form a re-accreditation process for update of the accredited optometrist list
- If care is provided only in hospital, use one stop hospital clinics (dilated assessment and biometry/pre-operative assessment at one visit)
- Write back to the community optometrist following every new patient referral episode in every eye clinic to improve feedback, referral quality and general understanding of what and when to refer. This will have a highly positive effect on the false positive referral rates in all clinics and is the single most effective way of improving the relationships with community optometry

Case study 2: Community optometrist on direct referral cataract care

The overall view of the direct referral cataract scheme has been positive. Patients have been grateful because they have less hospital visits and no GP appointments. Also, many have said



that they feel more comfortable asking the optometrist about the cataract referral process and operation as we have more time for questions and discussion than hospital staff.

I have never had a negative comment from a patient about the extra work done by the optometrist rather than the hospital.

“From an optometrist point of view, the closer contact with the hospital has been beneficial and I now feel able to contact them with any clinical problem.”

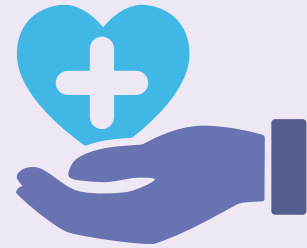
The feedback from the hospital optometrist, the consultants' letters and at accreditation evenings has improved my clinical skills and judgement.

Case study 3: Community optometrist on shared care cataract pathway

I own an independent optometry practice and I carry out domiciliary sight tests in the community. I have been involved in the hospital shared care cataract scheme for several years now (at least 6 years as I was involved in the original pilot). As a practitioner, I have found it extremely interesting and well thought out, it has enabled me to improve my level of knowledge in all areas relating to cataract extraction and contraindications (with help from lectures from the hospital ophthalmologists).

I gain significant satisfaction from being able to participate in the patients' treatment and continuation of care.

Patients definitely prefer this scheme to the traditional route as I am more approachable (easier to contact for quick advice/reassurance) than the eye unit and I am also local (to my patients) and as such much easier for the patients to access than the hospital. So the fact that the scheme usually results in the patient attending the eye unit for two sessions fewer than via the traditional route makes it so much more convenient for the patient.



Cataract operating lists

Key messages

- Cataract surgery lists should aim for a minimum throughput of one local anaesthesia (LA) phacoemulsification every 30 minutes, but this will be less where there are general anaesthesia (GA), complex cases and inexperienced junior trainees (usually ST 1-2)
- It is almost never appropriate to hurry the surgery itself – efficiency is increased by reducing non-surgical time. Measurement of time utilisation is key to find areas of improvement
- Use risk mitigation and risk stratification to schedule and staff lists as well as to counsel patients
- Cataract surgical training must be recognised and protected in any pathway reconfiguration
- Senior trainees should be able to deliver high volume cataract lists before taking up consultant posts
- Consider whether the option of a bilateral simultaneous cataract surgery pathway is appropriate for some patients

Before the list on the day of surgery

In order for the list to run efficiently, it must start on time with no known impediment to finishing safely and satisfactorily. A 'meet the patient' ward round can be used to double check that surgery is appropriate and build up rapport with the operating surgeons on the day if they have not met the surgeon previously. The planned post op refractive outcome should already be clear to the patient and only require confirmation at this stage.

Consider the use of staggered arrival times to stop undue wait for patients. A case study of a minor operations list in a general day surgery unit showed that staggered arrival times for patients saved 40% of nursing time and 50% of bed/chair space.

The pre-operative team brief should be carried out at 15 minutes before the start of the list and be led by the surgeon. Keep changes to the list order to a minimum and do not change the first patient on the day (the "golden patient"). Send for the first patient as soon as the team brief is complete (at five minutes before the start of the list as a minimum).

Staffing

An acceptable minimum number of staff to ensure smooth running of the list is essential:

- Two scrub practitioners: one to assist surgery and the other to set up for the next case
- One to two runners in each theatre (eg transferring patients, help obtaining equipment)
- More staff eg to support the surgeon in record keeping, to accompany and transfer patients, can be highly cost effective by allowing more cases per list

Theatre trained ophthalmic staff need to be retained, developed with local training with supporting competencies and protocols and have a career progression structure.

Assessing efficiency

Theatre flow and timings are available from routine sources (theatre logbooks or computer systems) for analysis, but variable quality can make them unreliable. Prospective audit, performed independently of theatre participants, is best. Information that can be corroborated such as time patient called for, time patient in operating theatre, time of start of surgery, time of end of surgery should be collected.

Targeted improvement should be based on internal benchmarking (comparable data from different operating lists) and comparison to other units (eg GIRFT data). Primary targets for change should be same-day cancellations, late starts and early finishes, but turnaround times between cases is also key as well as non surgical time whilst in theatre.

A minimum of two phacoemulsification operations per hour is widely accepted. With average surgeon speed, a 4-hour operating list with 8 routine cases should have an ample 10-12 minutes turnaround time for each case. Keeping this turnaround time to a minimum should be the focus of efficiencies. However, where surgical time is consistently longer than average, the surgeon and scrub team should be approached for solutions. Operating times can vary from surgeon to surgeon, but also can depend on scrub staff.

Training

Time should be allocated for training, but trainees can facilitate lists to improve time utilisation and turnaround when they are not operating. Only the most junior trainees should require reduced numbers on lists. The time any trainee spends on an operation should be limited to a pre-determined duration agreed upon in advance by the trainer and trainee. Improving efficiency can provide the additional time needed for the trainee where necessary.

After the list

The team debrief should be used proactively to assess any particular aspects of the operating session that went well or not and improve. Any 'on-the-day' cancellations or issues should be discussed at the clinical governance meeting to ensure continued improvement in appropriate counselling of patients, listing for surgery and list scheduling, especially if this is done by a non surgeon.

Simple solutions

The use of chairs in place of trolleys, walking patients to theatre rather than wheeling them (or vice versa) to improve transfer and turnaround time can be helpful. Having more staff of lower banding in order to keep staffing costs neutral can help with theatre support eg data entry on an efficient Electronic Medical Record (EMR) system and getting patients in and out of theatre. Scrub nurses can prep and drape patients whilst surgeons scrub and some units use two theatre or two surgical couches in adjacent areas to optimise use of surgeon time.

Enablers

- Open sharing and benchmarking of individual unit's and surgeon's performance results
- Accurate and usable IT systems for measuring and analysing surgical steps/ pathway timings and theatre utilisation
- Sufficient senior management support and clinical leadership time to analyse performance and effect change
- Use of devices for efficiency, such as, pre-operative pupil dilating inserts or intra-operative intra-cameral fast acting dilating agents, preloaded IOLs, consistent instruments and packs
- Locked down list orders and careful scheduling between clinicians and admin staff
- Consistent well trained theatre teams with strong focus on effective use of resources
- Provide rewards and incentives for improved productivity
- Whole pathway team involvement in efficiency improvement work

Barriers

- Resistance to change – more efficiency can be seen as just more work
- There is variability in the number of procedures a surgeon feels able to accommodate on a list comfortably and safely
- Training can be seen as a barrier to efficiency – but this can be managed and trainees can support productivity
- More support staff can be seen as increasing costs rather than an opportunity to optimise efficiency and overall long term financial effectiveness of lists

Case study 3: Sunderland Eye Infirmary – high throughput cataract surgery

Sunderland is recognised nationally as a consistent provider of high quality and high volume throughput cataract surgery, performing around 7,500 cataract operations per year, or 170-180 per week. Transformation of the service has been achieved in a number of ways.

Pre-operatively, patients are seen in a “one-stop” assessment where they meet their named nurse; undergo ophthalmic and preoperative assessment including biometry. The first stage of consent process is completed and patient receive their operation date. Patients are offered a choice of anaesthetic (local topical, local subtenons block, topical +sedation, block + sedation) in consultation with their nurse. There are pooled waiting lists, but lists are planned as high volume, complex-sedation and training lists, and the number of patients and staff on the list is adjusted accordingly.

There are two other key aspects for on the day operating list efficiency. Firstly, the cataract treatment centre is a purpose built, twin theatre surgical unit with an adjacent waiting area, Each theatre has a 4 room complex consisting of prep room, anaesthetic room, theatre and recovery room. This allows the patient to be prepped and to recover away from the open waiting room but directly adjacent to the theatre room, supporting maximum use of the theatre room for the performance of surgery rather than for perioperative tasks

Secondly, the nursing support for the lists is greater than for most units. This allows for a named nurse to accompany the patient throughout their surgical journey, which reduces repetition and handovers, provides one member of staff to oversee patient safety, and significantly reduces theatre turnaround times.

7,500

cataract operation performed per year



For high volume lists, there is one surgeon, with two scrub nurses, one circulating nurse (runner) and four to five named nurses, operating on 10-12 patients per list. For training lists, there is a senior surgeon and a trainee, with one to two scrub nurses, one runner and three named nurses. For complex or sedation lists there may be an anaesthetist and numbers are determined by complexity.

Their outcomes are excellent. They have had a 0.036% endophthalmitis rate (reference rate 0.1%) with no such infections last year, have had no never events reported and achieve over 96% friends and family test score, with 5 stars rating on NHS Choices.

Post-operative pathway

Key messages

- Patients who have had uncomplicated cataract surgery and do not have high risk co-morbidity should have their post-operative assessment performed by a trained primary care optometrist
- Post-operative vision and refractive data must be returned and used in local outcomes audit and submitted to the National Ophthalmology Database Audit (NOD) for cataract
- The primary care optometrists should have clear links for feedback, education and clinical governance with the surgical providers
- Fund the primary care optometrist for this assessment. This can be commissioned by the CCG or through the trust
- All providers of cataract surgery must have pathways for urgent advice and urgent and emergency care clearly understood, agreed and documented for patients and all professionals and providers involved
- Second eye surgery: pathways should be recognised and shared to ensure that there is no delay for second eyes

Patients are expected to attend their community optometrist 4-5 weeks after surgery in order to obtain new spectacles if necessary.

By combining a routine post-operative assessment with this visit, the need to return to the hospital eye unit will be eliminated. This can be useful in the majority of cases where there are no complications, is more cost effective and frees up significant capacity in outpatient clinics. The local community optometrists are closer to home, more convenient and accessible for the patient.

Commissioning community optometrists to perform post-operative assessments in partnership with the surgical unit can improve relationships and communications between ophthalmology and community optometry, which would reduce inappropriate referrals and facilitate feedback across the range of ophthalmological conditions.

Enablers

- Engagement and education of local optometrists via the LOC
- The contract with the community optometrist should include mandatory return of post-operative data. Arrange for post-operative data to be returned electronically or via secure NOD web portal or nhs.net email
- Use of an EMR by the surgical provider, ideally for the whole cataract pathway. A direct secure web portal link from community optometrist to the hospital EMR is the ideal and should be considered at an early stage of commissioning discussions

Barriers

- Patients may not go back to their optometrist because they have good vision or fear being charged for spectacles
- A lack of IT and communications infrastructure compromises the essential return audit data from the community optometrist to the eye unit
- Limited understanding of the importance for post-operative return of audit data
- Lack of a fee paid to the community optometrist for the post-operative assessment
- The return of post-operative information using paper records necessitates manual entry into the hospital electronic records, making the process time-consuming and labour intensive

Top tips

- Train community optometrists in post-operative complications; how urgently to refer cases back to the eye unit, where to refer back to and how to do this in the most efficient way. Meet annually with the optometrists in order to discuss the outcome of their referrals for continuous feedback
- Instigate an accreditation process whereby at least one optometrist from every practice in the local catchment area has the necessary expertise and responsibility to keep up-to-date and liaise with secondary care
- For units with EMR, use secure web links for electronic transfer of post-operative data directly back into the patient record
- By having the surgical unit commission or approve the post-operative community assessment, the payable fee can be withheld until post-operative data is returned satisfactorily. The decision on whether to list the second eye or not can be made at this stage, depending on functional vision
- Any attendance of the patient to eye casualty should be fed back to the community optometrist (via letter through the patient +/- electronically where this facility exists)

Case study 4: Optometrist feedback on involvement in post-operative community optometrist care



I have experienced very few complications post-operatively but when they have arisen they have been acted upon swiftly. We have very good and open lines of communication

with the hospital eye unit and this is vital for such a scheme to operate well and safely.

Previously post-operative refractive outcomes were not provided to the eye unit but now, as part of the scheme, accurate figures are collated via the feedback from the optometry practices involved in the post-operative care. Under the traditional scheme I would often refer a patient

for cataract extraction and then not see them again for another year or so, having received no information from the hospital as to whether anything had come of my referral.

The patients appreciate being able to discuss any concerns arising from the operation with their optometrist and as we are 'slightly removed' from the hospital setting it enable a more candid discussion sometimes.

So in summary I have found the scheme excellent and my patients greatly appreciate it mainly due to the convenience and at no detriment to the quality of care they receive.

Case study 5: Electronic post-operative cataract data return from community optometrist practice to a large Moorfields satellite clinic via the Medisoft web portal

All routine post-operative cataract assessments are conducted by accredited community optometrists in their local practices near to a large Moorfields satellite clinic. Following uncomplicated cataract surgery the patient sees a community optometrist of their choice at 5 weeks post-operative. Until recently, with payment of a small fee and working to a Moorfields protocol, the community optometrist returned the assessment data to the hospital via a paper form.

The National Ophthalmology Database Audit now offers a secure web portal for data return direct to the hospital EMR from any registered community optometrist's practice. This mechanism of electronic data return commenced at the Moorfields clinic in August 2015.

A unique PIN number is generated by the EMR for every patient at the time of their cataract surgery which appears on the patient discharge letter. The community optometrist logs in to the portal following the post-operative assessment, enters the PIN, adds the data to a form and sends it electronically. The data appears

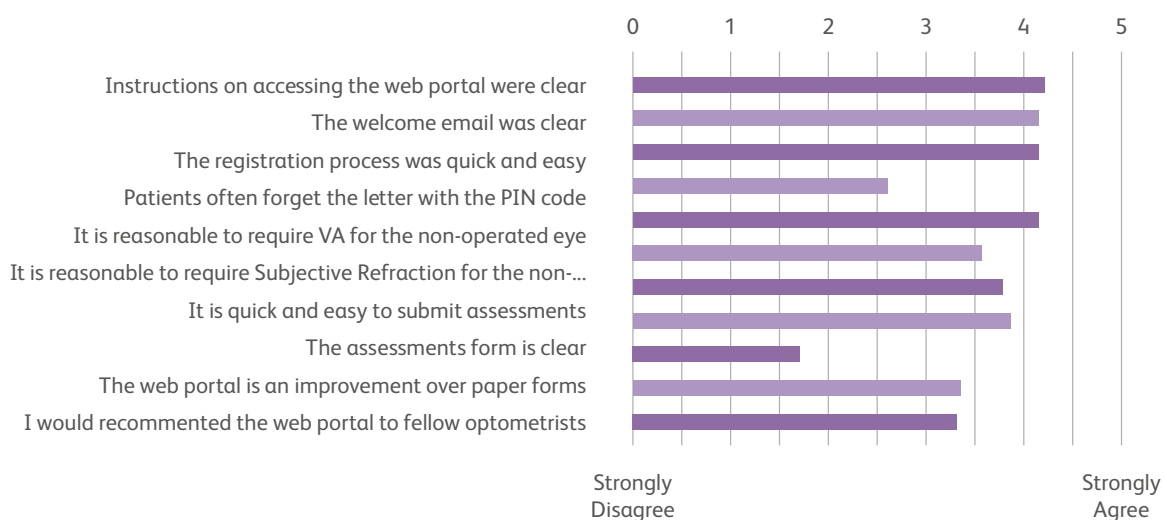
automatically, in the patient's hospital EMR, the next day. The portal is web-based and secure, and the patient is only identified via the PIN number, therefore there is no need for secure (N3) networking or additional secure software at the optometrist practice.

The hospital receives over 90% return of post-op data (67% overall, range 0.19-92% in England and Wales) immediately when the patient is seen. The most recent patient survey showed 100% satisfaction with the community optometrist's examination, courtesy and respect. It showed 98% satisfaction with the optometrist's explanation of the cataract and the consultation with the nurse pre-operatively. Post-operatively, 96% were satisfied with their optometrist's examination. They liked the wide choice of appointment times available in the community.

There was over 98% satisfaction with the overall cataract pathway.



Web Portal Feedback



Quality standards and indicators

Key messages

- Measure the percentage of patients referred who do not undergo cataract surgery
- Measure the percentage of patients cancelled (for medical and non-medical reasons) on the day of cataract surgery
- All providers of NHS cataract surgery should submit data to change to NOD audit for cataract www.nodaudit.org.uk/
- All providers of NHS cataract surgery and all cataract surgeons should at least annually audit their key outcomes, that is, the rate of visual loss (as defined by NOD), PCR rate, %BCVA $\geq 6/12$, % refraction within +/-1 D of target, postop endophthalmitis rate, other serious postoperative complications
- Activity data including total number of cases performed and how many routine cases per 30 minutes with risk/complexity adjusted cataract surgery rate
- This data should be used in appraisal and to performance manage surgeons and other cataract team professionals, and to drive improvements for units and surgeons



There are many metrics which can be used to assess quality and efficiency of surgery. There should be agreement about how often and how these will be collected, how analysed, how shared with the wider cataract team including community colleagues and with commissioners with an agreed plan to do so and clarity on named responsibilities. There should also be agreement on how this is used to performance manage teams and individuals as well as how to use for learning. Efficiency data on theatre timings (see above) is also important to analyse.

It is important to ensure that units have arrangements to record cases of post-operative complications and where serious complications such as retinal detachment or endophthalmitis might be managed in other units, robust arrangements to collect information and feedback on this are required. If using an EMR, there needs to be a system to ensure all postop complications including those seen in urgent or off site clinics are entered onto the EMR.

All providers should be returning data to the NOD audit and using this to benchmark and manage the unit and individual surgeons, and to be transparent in terms of outcomes to patients and the public.

There need to be methods for the wider theatre teams and cataract pathway teams, including community and administrative colleagues, to meet, discuss and learn to improve safety, quality and efficiency such as multidisciplinary clinical governance meetings.

Where there are serious issues, eg wrong IOL inserted or a run of postoperative endophthalmitis, there needs to be support to report these incidents and undertake a root cause analysis (RCA) investigation.

Enablers

- Ophthalmic EMR supporting audit of key cataract outcomes
- Community optometrists funded to return post-operative data, ideally electronically in EMR or the NOD audit web portal (see post-operative pathway section)
- Commissioners utilising correct key performance indicators for whole cataract pathway
- Commissioners including submission to the national cataract audit within surgical provider contracts
- Clear and robust mechanisms for identifying and feeding back post-operative incidents and complications including endophthalmitis, especially where these are managed by a provider different to that which performed the surgery

Barriers

- Paper records
- Poor post-operative data return or entry
- Lack of information sharing between providers
- Lack of means of identifying and recording post-operative complications

Case study 6: Patient who underwent cataract surgery

I had been having difficulty with driving in the dark for quite a while, with oncoming lights dazzling me, and I had to stop driving in the evening and at night. When I had my annual check at the opticians, I was shocked to hear I was barely at the legal limit for driving. The deterioration had been so incremental I did not realise how bad my vision had become. We live in an area where there is no regular bus service and we are very reliant on being able to drive. At age 87, I did not want to delay as not being able to drive would have been very limiting and made my quality of life very poor and at my age, you never know what is round the corner.

I had never had an operation before. Although I was naturally apprehensive about surgery on my eye, I received excellent notes explaining

what to expect in the surgery and, during the operation, my surgeon eased me along, checking I was alright and explaining what was happening, which was very reassuring. It only took 20 minutes to have the operation. After the operation, it has made an amazing difference. I can confidently drive around town during the day and at night without any glasses and do everything I need to do with good sight.

Cataract surgery is a wonderful operation and everyone who needs it ought to be able to have it.



Standards and guidelines

- [NICE cataracts in adults clinical guideline](#)
- [The Royal College of Ophthalmologists \(RCOphth\) Commissioning guidance for cataract](#)
- [Clinical Council for Eye Health Commissioning \(CCEHC\) SAFE cataract framework](#)
 - CCEHC SAFE Quality Indicators for Commissioning
 - CCEHC NICE Guideline Implementation Template
- [RCOphth Quality Standards \(QS\) for cataract services](#)
 - [QS e-tool](#)
- [RCOphth theatre processes Ophthalmic Services Guidance](#)
- [CCECH Primary Eyecare Framework](#)
- [NOD annual report 2017](#)
- [CCECH Portfolio of Indicators](#)
- [RCOphth commissioning standards](#)

Publications of best practice models of care

- [The Way Forward RCOphth](#)
- [The Monitor report on elective surgery efficiency October 2015](#)
- [Optometry in Practice, Vol 14, issue 2 2013. W. Newsom, U. Hussain, C. Stephenson, M. Hingorani: Community optometry working with hospital ophthalmology: the benefits of working together in a shared care cataract pathway](#)
- GIRFT report due to be published 2018

Other reading

Venkatesh R, Muralikrishnan R, Balent LC, et al Outcomes of high volume cataract surgeries in a developing country British Journal of Ophthalmology 2005;89:1079-1083

www.beckersasc.com/asc-turnarounds-ideas-to-improve-performance/10-steps-to-improve-quality-and-efficiency-in-cataract-surgery.html

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Lean Healthcare: Chapter 3. "We're not Japanese and we don't make cars" (NOD, Jaycock et al. Eye (2009) 23, 38-49).

Community optometry working with hospital ophthalmology: the benefits of working together in a shared care cataract pathway

An audit of postoperative refractive outcomes Wendy Newsom BSc(Hons) MCOptom, Usman Hussain MB BSc(Hons), Chris Stephenson FRCS(Ed) FCS(Ophth) and Melanie Hingorani MB BS FRCOphth MD

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