

STOCKPORT

- LOCAL
- OPTOMETRIC
- COMMITTEE

Stockport Direct Referral And Post-operative Cataract Enhanced Services

March 2013

Chairman:
Trevor J Warburton BSc FCOptom

Secretary:
John P Glover BSc FCOptom

Treasurer:
Tony Harries FCOptom DCLP

Dear

Thank you for expressing an interest in the cataract schemes. Please read the protocol which covers the operation of both services

New practitioners may join the scheme on request, subject to meeting accreditation requirements. You must take the LOCSU/WOPEC distance learning course on cataract and successfully complete the MCQs. This will accredit you for both referral and post-op. Contact admin@stockportloc.co.uk or phone 480 6432 to request a code to register with WOPEC and obtain the CD. The completion certificate can be downloaded (or print the web results screen) and a copy should be emailed to admin@stockportloc.co.uk who will arrange for the practitioner to be added to the accredited list within the IT system.

You will then receive an agreement form from the PCT which you should sign and return.

As with all these enhanced services, only patients registered with a Stockport GP are eligible for inclusion. Also, if a patient is already under the care of a Stepping Hill ophthalmologist for another co-existing ocular condition, then they are also ineligible for direct referral. In this case you should simply write directly to the consultant (copy to GP) explaining your concerns or the patient's difficulties with regard to their cataract.

Since the introduction of this scheme, patient choice has been introduced for cataract surgery. In addition to the previous requirements of the direct referral arrangements you are asked to:

- Explain that there is now a choice of provider
- Give the patient the leaflet about the choices and explain what they are
- Answer any questions they may have
- Record the patient's choice of provider on the IT system – the referral will be sent directly and automatically

There are still some patients seen outside Stockport who are referred on a GOS18, as well as some GPs still referring without an assessment. These referrals may not be processed until the patient has been assessed. Treatment centres may reject any referral for cataract which is not accompanied by the appropriate form and health questionnaire. They will write to the patient with a list of optometrists asking them to attend for an assessment. If a patient is referred to you for this assessment following a GOS sight test elsewhere and you have reason to be unhappy about proceeding on the basis of that sight test, then you may retest the patient using code 5.3 or 6 as justification.

Finally, all patients should now receive a cataract post-operative check by an accredited practitioner. Results are entered into the IT system. Blank paper forms are available if you prefer to complete these first and enter results later.

Points to note for the post-op service:

1. *The level of astigmatism or anisometropia that is unacceptable or intolerable is left to your judgment and may depend, amongst other things, on the pre-operative refractive error.*
2. *If a post-op pinhole VA is provided by the hospital then you are asked to indicate if the best corrected acuity is less than the post-op pinhole acuity OR less than 6/12 anyway.*

Remember, the entire cataract enhanced service operates through the IT system. There is no paper alternative.

If you have any questions please give me a ring on 480 6432, or send an e-mail to chairman@stockportloc.co.uk

Yours sincerely,

Trevor Warburton

Protocol for Cataract Service

March 2013

Purpose

The pre and post operative cataract pathway is designed to improve the patient journey by reducing the number of patient visits overall and to include as few visits to secondary care as possible.

The pre-operative service enables time to be spent with the patient discussing the risks and benefits of cataract surgery and aims to minimise the number of patients who are referred and later go on to decline surgery. It also provides a consistent level of high quality information as a part of the referral.

The post-operative service replaces a final hospital appointment and provides an ocular health check as well as providing reliable data back to secondary care for audit and quality assurance purposes.

Background

These services have been in operation in Stockport for several years. In 2012 they moved to an IT-based system and there is no paper alternative. All referrals and post-op findings must use the IT system.

The Service

The patient may self-refer into the service or they may be referred by their GP or by a non-participating optometrist (although it is expected that most optometrists in an area would opt to participate in the service).

Stage one

A routine GOS or private sight test will reveal the presence of cataract and, as now, the examining optometrist will discuss this with the patient. If the cataract is not presenting any significant visual or lifestyle difficulties, then they will continue to be reviewed by the optometrist in the normal way. If however the patient wishes to consider surgery, then the optometrist will discuss this and if the patient wishes to precede the optometrist will provide a self-assessment health questionnaire which

will help to establish suitability for surgery by highlighting other health problems and possible contra-indications.

The assessment may be carried out at this time if;

- the optometrist is accredited in the service
- if time permits and
- the patient agrees

If not, a further appointment is made for a full cataract assessment.

In the unlikely event that the examining optometrist is not participating in the service, then a list of all optometrists in the service will be provided to the patient so that they can arrange an appointment for the assessment. A GOS 18 referral form will be completed and provided to the patient, or sent directly to the participating optometrist of choice.

In a domiciliary situation the same will apply. However, if the examining optometrist is not accredited the patient will be referred via the GP using a GOS18 in the normal way, the referral results from a domiciliary visit.

If a patient is clear from the outset that they will want to be referred privately then this service should not be used and they should simply be referred to the private consultant of their choice

Stage two

The patient attends for the full cataract assessment to elicit relevant ocular, medical and social information which will assist secondary care facilities to ensure patients receive the most appropriate treatment and care. This must include;

- Pupil dilation and examination by indirect ophthalmoscopy in order to establish whether there are any co-existing ocular disorders as well as cataract.
- Discussion of the health questionnaire and any outstanding issues dealt with.
- Communicating the relative risks and benefits of cataract extraction
- Ascertaining the patient's willingness for surgery

Clinical guidelines and a patient self-assessment questionnaire will support the participating optometrist to differentiate between:

- a) Cataract patients who are not currently appropriate for referral for NHS treatment either because the patient chooses not to be considered for cataract surgery or because the patient has chosen to be referred privately.
- b) Cataract patients who are suitable for direct referral to the hospital. In this case, the supporting information provided with the referral will allow the

hospital to determine whether the patient is likely to be suitable for a direct access clinic or a traditional clinic due to their more complex health needs.

In general it is expected that the visual acuity will be worse than 6/9 (i.e. 6/9- and less) before referral for surgery unless there is evidence that the cataracts are causing a particular difficulty, in which case the reasons for referral should be carefully reported.

Exclusion criteria

It will be the optometrist's responsibility to establish the patient's eligibility. **They should therefore only assess and refer patients under this service who are NOT already under the care of an NHS Trust ophthalmologist for another active ocular condition.**

N.B. A letter to the consultant explaining the patient's current visual difficulties is appropriate for patients currently under the care of an NHS Trust consultant ophthalmologist for another active ocular condition.

Patients not requiring NHS referral

Some cataract patients will not require a referral to the hospital for NHS treatment. These will be those that:

- having been counselled on the risks and benefits of cataract extraction, choose not to proceed with surgery
- have been assessed under the service but have chosen to be referred for private treatment rather than NHS surgery – these should be referred directly to a named consultant

In these cases the GP should be informed and the fee claimed.

Stage Three

If the patient is willing to undergo surgery and the optometrist considers that they are suitable, then the information should be recorded on the system along with the patient's choice of provider. The referral, and the post-op reports, will be sent by the system automatically. In the case of the referral a covering letter of information will be sent to the Patient's GP. Payments will be handled automatically by the system

The optometrist will make every effort to ascertain the suitability of the patient for direct referral and their willingness to undergo surgery. It will ultimately be the consultant team that determines the most appropriate clinic route so it would be inappropriate to discuss with patients their likely pathway.

Patients who fail to confirm or attend their appointment

- *Receipt of referral by treatment centre or Referral Centre* – if the patient ultimately fails to contact the treatment/referral centre a letter should be issued to the referring optometrist advising them that the patient failed to contact the treatment/referral centre.
- *Initial outpatient appointment, pre-operative assessment or day of surgery* – if the patient fails to attend their initial outpatient appointment, the pre-operative assessment appointment or their day of surgery they will be classified by the hospital as a DNA (Did Not Attend). Patients who DNA are automatically discharged and a letter should be issued to the referring optometrist advising them of this.

In either of these cases the optometrist should contact the patient and identify whether he/she is still interested in surgery.

Domiciliary Patients

In order to qualify for a domiciliary GOS sight test, the patient must fall into one of the NHS eligibility categories and be unable to leave home unaccompanied. In order to qualify for a domiciliary cataract assessment under the service, the patient must be able to travel to the treatment centre for treatment if suitable transport can be provided, and be able to co-operate with the procedure. Generally the assessment will be carried out in their home and at the same time where possible and the self assessment health questionnaire will be issued.

If the sight test is carried out by a non-participating optometrist, the patient will be referred via the traditional route using a GOS 18 to the GP.

The pathway then follows stages 2 and 3 of the normal pathway but in the patient's home. In some cases it may be possible for part of the assessment to be carried out by telephone, where it has not been possible to provide the full assessment at the time of the initial visit, e.g. discussion of the health self assessment questionnaire.

Description; Post-op Service

Following day case cataract surgery at the Treatment centre the patient is discharged with appropriate instructions and medication. The treatment centre will follow up with a physical appointment or by telephone, according to protocol. If the patient experiences a red or painful eye in the weeks following the operation they are instructed to seek help immediately from the treatment centre.

If all is well the patient will be instructed to visit the referring optometrist after 4 weeks for the final post-op examination and sight test.

Outcomes

1. If the patient is happy, the eye is white and vision is good the optometrist will;
 - a. Enter the findings into the IT system. This report will either:
 1. Request an appointment due to post-op complications and indicate the urgency.
 2. request 2nd eye surgery
 3. report discharge of the patient with advice on the interval to their next sight test

The report will be sent by the system automatically/

Fees

The fees paid are:

- Pre-operative assessment £45.00
- Post-operative assessment £26.00

Clinical Governance

Practices participating in this service must hold a GOS contract for either mandatory of additional services, or both. In addition, the clinical governance requirements of the host PCT must be adhered to and maintained. For Stockport PCT this means Level 2 of Quality in Optometry (QiO) as well as satisfactory completion of the infection control and information audits contained in QiO.

Registration of optometrists

New practitioners are required to take the LOCSU/WOPEC distance learning course on cataract and successfully complete the MCQs. This will accredit them for both referral and post-op. The completion certificate can be downloaded and will need to be uploaded into the IT system in order to register as an accredited practitioner.

Patient Information

There are 2 leaflets, one about risks and benefits to assist with the decision on whether to have surgery and another about the referral process. These can be downloaded from the LOC website at www.stockportloc.co.uk.

Stockport LOC/PCT Cataract Self-Assessment Questionnaire



Patient's details	Optometrist details
<i>First name:</i>	<i>Optometrist:</i>
<i>Last name:</i>	<i>Practice:</i>
<i>Address:</i>	
<i>DOB:</i>	GP details
<i>Phone:</i>	<i>GP name:</i>
<i>Mobile:</i>	<i>Practice:</i>
<i>Email:</i>	
<i>NHS number:</i>	

This form is designed to help you have your cataract treated in the best way possible.

Please complete **ALL** the sections. If you are unable to provide any of the information, please ask a member of your family or a friend to help.

If you have any problems completing the form, the optometrist will help you. Please bring details of all your medication with you (either a repeat prescription list or the medicines themselves.)

Section 1: Past eye history

1. Do you currently have, or have you previously had, any other eye conditions?	Yes	No	
<i>If yes, please give details:</i>			

2. Have you had any previous eye operations including refractive surgery or laser treatment?	Yes		No	
<i>If yes, please give details:</i>				
<i>Please describe any problems with the operation (if applicable):</i>				

Section 2: Your general health

1. Do you have high blood pressure requiring treatment?	Yes		No	
If yes: Are you on treatment?	Yes		No	
2. Do you have diabetes? (high blood sugar)	Yes		No	
If yes: Do you take insulin?	Yes		No	
Do you take tablets?	Yes		No	
Or is it managed by diet?	Yes		No	
3. Do you have angina?	Yes		No	
4. Have you had a heart attack within the last three months?	Yes		No	
5. Do you have epilepsy or blackouts	Yes		No	
6. Do you suffer from head or neck stiffness?	Yes		No	
7. Do you have recurrent breathing difficulties? <i>(e.g. severe asthma or chronic bronchitis)</i>	Yes		No	
8. Can you walk a single flight of stairs without getting short of breath?	Yes		No	
9. Can you lie flat for up to 30 minutes?	Yes		No	
If no: Is this due to shortness of breath?	Yes		No	
Is this due to joint or muscle stiffness?	Yes		No	
10. Do you suffer from panic attacks or claustrophobia?	Yes		No	
11. Do you smoke?	Yes		No	

Section 4: Practical concerns

1. Are you able to walk unaided?		Yes		No	
If no:	Can you do so with the aid of a stick or helper?	Yes		No	
2. If required, would you be able to apply eye drops?		Yes		No	
If no:	Do you have family or friends who could do so?	Yes		No	
3. If you need a home visit for the assessment, are you able to travel to the treatment?		Yes		No	
4. Do you have <u>significant</u> hearing loss?		Yes		No	
	If so, do you require someone who can use sign language to be present?	Yes		No	

Section 5: How is the cataract affecting your life?

1. Is your sight causing you any difficulty with mobility <i>e.g. crossing roads, managing steps, using buses?</i>	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
2. Do you have problems with glare in sunlight, or from car headlights?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
3. If you drive, do you still feel confident to do so?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
4. Is your vision affecting your ability to look after yourself? <i>e.g. cooking, housework, dressing</i>	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
5. Is your quality of life affected by visual difficulties? <i>e.g. reading, watching TV, hobbies, sport</i>	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
6. Is your vision causing problems socially? <i>e.g. recognising people, handling coins and notes?</i>	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
7. How much better do you think your life would be without a cataract?				
Please tick one:		<i>A lot?</i>		
		<i>Moderately?</i>		
		<i>Slightly?</i>		
		<i>Not at all?</i>		

Finally:

1. If the eye specialist was to offer you cataract surgery, would you want it at this time?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
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In order to provide you with the most appropriate care, it will be necessary for the optometrist to exchange information relating to your cataract with your GP and the eye clinic.



Cataract Referral Form

Patient's Details						Optometrist / Practice			
First name:						Optometrist:			
Last name:						OPL number:			
DOB:						Practice:			
NHS number:						Phone:			
Address:									
Phone:						Patient's GP			
Mobile:						GP name:			
Email:						Practice:			

	Sph	Cyl	Axis	Prism	VA	Add	Near VA	Pre-cataract VA	IOP(mmHg)	IOP METHOD
R								Date:		
L										

Patient dilated?	Yes	No	Any co-existing ocular pathology? <i>(if yes, please indicate with a tick below)</i>							
<i>If no, reason:</i>			Yes	No						
Smoker?	Yes	No	Significant AMD?	Right	Left					
Cataract	Right	Left	Diabetic retinopathy?	Right	Left					
Preferred eye for surgery	Right	Left	Amblyopia?	Right	Left					
Adequate fundal view?	Right	Left	Under treatment for glaucoma?	Yes	No					
Prev cataract operation?	Right	Left	Cornea healthy? (if no, detail below)	Yes	No					
<i>Prev operation date:</i>			<i>Other:</i>							

Patient indicates previous refractive surgery?	<i>Approx surgery date:</i>	Yes	No
Patient has completed a self-assessment questionnaire? (required for referral)		Yes	No
Is patient experiencing visual difficulties due to cataracts?		Yes	No
Benefits and risks of cataract surgery have been explained?		Yes	No
Patient wants cataract surgery at this time? (if no, inform GP)		Yes	No
Patient has chosen to be referred for NHS treatment? (choose no for private referrals)		Yes	No
Patient previously assessed and now wishes to be referred?	<i>Assessment date:</i>	Yes	No
Sight test carried out today? (if no, indicate date)	<i>Sight test date:</i>	Yes	No

Additional comments:

<i>Signature:</i>	<i>Date:</i>
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Post Operative Cataract Report

Patient's Details
First name:
Last name:
DOB:
NHS number:
Address:
Phone:
Mobile:
Email:

Optometrist / Practice
Optometrist:
OPL number:
Practice:
Phone:

Patient's GP
GP name:
Practice:

Procedure details

Procedure undertaken	Right Eye	Left Eye
Pin hole VA	Right	Left
Comments:		

Consultant:
Treatment Centre:
Operating Surgeon:
Date of procedure:

Slit lamp examination

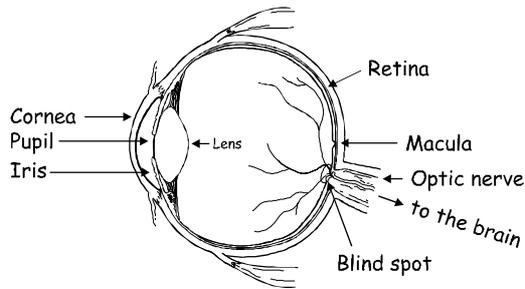
	Right eye		Left eye	
	Yes	No	Yes	No
Patient gives/has a history of pain, discomfort or sudden reduction in vision?				
Anterior chamber activity present? (> 2 cells seen in 2x2 field)				
Wound red or unusual in any way?				
Corneal clarity affected?				
Posterior synechiae?				
Thickening or posterior capsule				
Any vitreous activity				
Intolerable or unacceptable astigmatism?				
Intolerable or unacceptable anisometropia?				
Corrected acuity < post-op PH or < 6/12?				

Refraction

	Sph	Cyl	Axis	Prism	Base	VA	Add	Near VA	IOP (mmHG)
R									
L									

Action taken / conclusion

I confirm I have carried out the above examination and find the patient....				Suitable for discharge	
Name of practitioner		Date of assessment		Unsuitable for discharge	



Should I have cataract surgery?

Patient Information Sheet

NHS Stockport and Stockport Optometrists

Whether you decide to have cataract surgery will depend on many things. Just because you have a cataract doesn't mean you should have it removed immediately. And these days, we don't need to wait till a cataract is 'ripe' (well developed).

Your decision will probably depend on how much the cataract is affecting your daily life. So please read the following four questions because they will help you decide whether cataract surgery is right for you:

1. How well can you see?

Generally, if you can see quite well, it's probably best not to have surgery yet. All cataract surgery carries a small risk, so it's better to wait until you really need it.

If you can answer 'yes' to most of the following points, then you may benefit from having surgery soon:

- Do you find it difficult to move around easily and safely, such as when crossing the road, using the stairs or getting on and off public transport?
- Does the glare from sunlight or car headlights bother you a lot?
- Are you finding it difficult to do everyday tasks, like cooking, dressing and housework?
- Does your eyesight prevent you doing your hobbies or sports, or things like watching TV and reading?
- Are you starting to find it difficult to cope with things like recognising people and handling money?

2. Can you see well enough to drive?

Generally, the chance of your eyesight being improved by surgery is slightly lower if you can already see well enough to drive safely.

3. What does your optometrist think?

Ask your optometrist for their advice. They can tell you about the risks of surgery and help you decide whether you want to have it.

4. How quickly will your cataract worsen?

We can't say how quickly your cataract will develop and get worse. But even if your cataract is bad, this won't usually affect the result of the surgery.

If you decide to have surgery

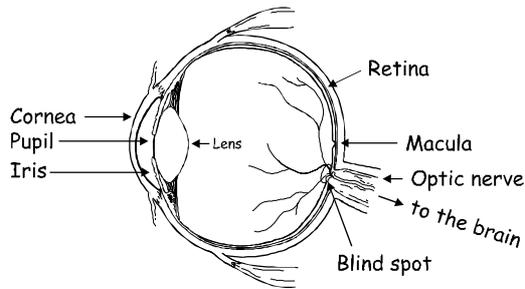
If you decide to go ahead with surgery, you will need to first make an appointment to see your optometrist for an eye examination. They will also assess you to find out whether you are suitable for surgery. Eye drops will be put into your eyes, so we advise that you arrange for someone to take you home afterwards.

A free interpreting service is available if you need help with this information. Please telephone Stockport English Language Service on 0161-477 9000
এই তথ্যের ব্যাপারে আপনার যদি কোন সাহায্য সহযোগিতার প্রয়োজন হয় তবে আপনার জন্য বিনা খরচে কো-ভাষীর ব্যবস্থা করা হবে। দয়া করে ইকসপোর্ট ইংলিশ ল্যাংগুয়েজ সার্ভিসে 0161-477 9000 এই নাম্বারে ফোন করুন।
اگر آپ کو اس معلومات کے بارے میں مدد کی ضرورت ہے تو منتظر رہیں کہ اس سروس دستیاب ہے۔ یہ سروس برائے ٹیلی فوننگ 0161-477 9000 پر فن کریں۔
如你需要他人為你解釋這份資料的內容，我們可提供免費的傳譯服務，請致電史托模英語服務：0161-477 9000
تتوفر خدمة ترجمة شفوية مجانية إذا تطلبت مساعدة في فهم هذه المعلومات. نرجو الاتصال بخدمة تعليم اللغة الانجليزية في ستوكبورت على رقم الهاتف: 0161-477 9000
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Should I have cataract surgery?
November 2009

Published by
NHS Stockport
Stockport Local Optometric Committee



Having surgery to remove cataracts

Patient information sheet

NHS Stockport and Stockport Optometrists

I want cataract surgery – what now?

Your optometrist will give you an eye examination and assess whether you are suitable for surgery. Unless you have chosen to pay for private treatment, your optometrist will then refer you to the referral team at the Stockport Primary Care Trust Customer Care Centre.

The centre will contact you in a couple of weeks and give you a choice of where to have treatment. Currently, you can choose Stepping Hill, Macclesfield or Withington, without giving reasons for your choice. If you haven't heard from the centre within three weeks, contact your optometrist.

You will be offered an appointment to see the eye specialist at the place you have chosen. They will assess whether the operation is suitable for you. If the eye specialist decides surgery can go ahead, you will be given a date for your operation.

What happens in a cataract operation?

The operation takes about half an hour and is usually done under local anaesthetic – you'll be awake, but your eye will be numb so you won't feel any pain. Most patients don't need to stay in hospital overnight.

The surgeon will remove the affected lens from your eye and put in a plastic implant lens. This is done by making a small cut in the cornea – the front window of your eye, which normally seals itself afterwards.

Are there any risks?

There are risks with any surgery, and there can be complications with cataract surgery. The risk of a complication that may seriously threaten your sight is about 3 in 1,000. However, about 950 in every 1,000 operations don't cause significant problems to the patient's vision.

After the surgery

About four weeks after your operation your optometrist will assess your eyes. You will probably need to wear glasses for some tasks, possibly with a different type of lens. For example, if you used reading glasses before, you may now need varifocals, or vice versa. This is quite normal and will ensure you get the best vision possible.

During the first few years after surgery some patients develop a condition called posterior capsular thickening, which can affect their sight. If this happens, your sight will go hazy, almost like the cataract has returned, and you will need simple laser treatment to clear your vision. Your optometrist will be looking out for this and will tell you if you need this treatment.

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ಈ ಸಹಾಯಕ ಸೇವೆಯು ನಿಮಗೆ ಈ ಮಾಹಿತಿಯನ್ನು ಅರ್ಥಮಾಡಿಕೊಳ್ಳಲು (understanding) ನೆರವು ನೀಡುತ್ತದೆ. ಸಹಾಯಕ ಸೇವೆಯನ್ನು ಕರೆಸಿಕೊಳ್ಳಲು 0161-477 9000 ನಂಬರ್ ಕರೆ.



Referral for Cataract
November 2009

Published by
NHS Stockport
Stockport Local Optometric Committee

Cataract surgery

Counselling considerations and complications

Arrangements for the direct referral of cataract patients by optometrists are increasingly common. Whilst only the surgeon can take final consent, earlier counselling of patients can prevent many unnecessary referrals to secondary care. This article considers points which should be kept in mind when discussing cataract surgery with patients.

There is often a tendency to trivialise things and cataract surgery is no exception, especially as it is the most commonly performed operation in the UK. Outlined below are some of the complications that can occur. These range from serious complications to the less so, but nonetheless they can be quite upsetting to patients.

Patient expectations are justifiably very high so counselling, assessment and meticulous surgery and post-operative management are crucial. Generally surgery goes well, and complications are rare, but to a patient unfortunate enough to be a statistic, it can be very significant. It is not suggested that optometrists should discuss all of these complications with patients, rather that they should be aware of them. It will help to explain why a surgeon may be less enthusiastic about operating on some patients at an early stage.

Per-operative complications

Complications during surgery can be particularly serious. **Nucleus dislocation and posterior capsule (PC) rupture** with failure of lens implantation are potentially disastrous if they happen in an operation. If there is a nucleus dislocation, or PC rupture, and it is not possible to implant a lens for whatever reason, then a patient becomes aphakic, with all the problems that entails. Unless a lens can be implanted as a secondary procedure, or a contact lens can be worn, then binocular vision will not be possible.

Expulsive choroidal haemorrhage can occur either during the operation or immediately post-operatively and is potentially a disaster. This is most likely to affect the elderly patient, those with hypertension, the anxious, those on warfarin, with ischaemic heart disease and under local anaesthetic – all in all, the typical cataract patient. It is rare but an unpleasant complication to deal with. It can reduce an eye with 6/9 due to cataract, to perception of light after three operations. The incidence is around one in 500 to one in 1,000.

Anaesthetic complications

Anaesthetic complications are rare but they do occur; 99.5% of the operations in

our department are done under a local anaesthetic. Statistically around one in 1,000 patients will suffer a **globe perforation** during an injection for local anaesthesia. This will result in a blind eye, and is more common in high myopes. Because of this risk, APM's personal preference is for topical anaesthesia or a sub-tenons approach in which anaesthetic is introduced via a blunt canula inserted through an incision in the conjunctiva.

Some patients may get persistent **diplopia** from their anaesthetic block if the anaesthetic has penetrated one of the muscles, or if it has damaged some of the muscle fibres. Sometimes this can be intractable and is a direct result of the surgery. Again, a topical or sub-tenons will avoid this risk.

Patients should not perceive pain during cataract surgery. However, other medical conditions may cause problems such as breathlessness, obesity, arthritis, anxiety, claustrophobia and confusion.

Post-operative complications

Retinal detachment is more common following per-operative complications, such as posterior capsule rupture, or with high myopia, particularly over -6.00D. On its own, it is not an inoperable or unsalvageable condition, but it is a nuisance for the patient. The incidence is around one in 500 to one in 1,000. Even a YAG capsulotomy carries a risk of retinal detachment in higher myopes because the shock wave is transmitted to the posterior pole. This causes a posterior vitreous detachment, if this has not previously happened.

Failure of vision to improve is a 'complication' which may not be due to any problem with the surgery. There may be co-existing conditions, such as AMD or glaucoma. It is important that the patient should appreciate this possibility prior to surgery. A carefully counselled patient may still be happy. Patients with AMD will often observe a subjective improvement in their vision, despite no apparent improvement in Snellen acuity. It is important to make some form of assessment as to the relative contributions of co-existing conditions.

Cystoid macular oedema (CME) is a



Figure 1
Cystoid macular oedema



Figure 2
Endophthalmitis

complication which can occur quite frequently. **Figure 1** shows the classic rose petal appearance of CME with fluorescein angiography. The general risks of CME occurring are between 5% and 15%. It is often fleeting and most patients will recover with treatment, but it is worrying for them and it can cause permanent visual loss. It is impossible to be sure which patients it will affect, but it is more likely to occur with conditions such as diabetes, glaucoma or uveitis or following complicated cataract surgery.

Endophthalmitis (Figure 2) is a dreaded complication with an incidence of about one in 1,000. Pre-operative disinfection, together with lid hygiene in cases of blepharitis, are crucial prophylactic measures, as well as post-operative antibiotics.

Optical considerations

Some patients complain because they still need spectacles after cataract surgery. It is important that patients understand what is happening, and the potential outcomes, particularly the young patients who must appreciate that they will become immediately presbyopic after surgery. At the present time, multifocal and accommodative intraocular lenses are only really available in the private sector.

The accuracy of post-operative refractive results relies on careful biometry as well as

feedback of the actual result. In our area, we have a post-operative shared care scheme and one of the great bonuses is the reliable feedback which allows the surgeons to constantly refine their own personalised surgical factors in IOL calculations.

Anisometropia can happen by design – a great operation on a -9.00D myope may still leave them -9.00D in their other eye, or by accident – a surprise result, which happens now and again. In an ideal world, patients would have their second eye surgery expedited, but this is a waiting list problem that we cannot solve. There are other patients who have not had their first eye done so it is a difficult situation.

Post-operative anisometropia can frequently be managed with prism-control bifocals, or by using two pairs of spectacles with suitably lowered centres for near, or perhaps with a contact lens or lenses until the time comes for second eye surgery. If all else fails, a balance lens can be used for one eye in the interim. This is optometry's area of expertise and optometrists should use their knowledge and judgement to help the patient through the wait for second eye surgery.

Special considerations

Obviously, **no fundal view** means a guarded prognosis. The patient cannot be given a definite indication of what the outcome is likely to be.

It can be difficult to determine the relative contribution of **pre-existent disease** to the patient's visual problem, e.g. AMD, glaucoma and diabetic retinopathy. Where they have been under the management of an ophthalmologist for other conditions, there may be slightly more evidence to support the likely outcome, but not always.

The **macular degeneration** patient may be happy with the same visual acuity after surgery as before. Their field of vision and contrast sensitivity may be improved. You may simply have been nice to them and showed that you actually cared and were prepared to try to help if you could.

Amblyopic patients can develop cataract like anyone else. It is important that they have been counselled beforehand to understand that their outcome may not be the same as their next-door neighbour's. It is necessary to decide if it is a visually significant cataract or not. The patient should be warned that the prognosis must be guarded. There may be little or no improvement. So long as the patient understands the situation, and you have guided and advised them, it is their decision.

Previous uveitis patients will have a more protracted management since the uveitis may recur post-operatively, and there is an increased risk of CME. It may be necessary to consider using special types of implants in these patients and the surgery may be less straightforward,

e.g. due to small pupils and posterior synechiae (**Figure 3**).

Previous trauma is always tricky, especially if there are no records and it is not clear how significant the trauma was and what it involved. There may have been zonular damage and potential nucleus dislocation, so the original trauma may affect the prognosis. As in pseudoexfoliation (see below), the use of special dyes, such as Vision Blue, to enhance the view of the lens capsule and Intracapsular Tension Rings can be very useful.

Figure 4 shows the results of a childhood injury causing a fixed, dilated pupil with wound inclusion to the temporal side. This is masked by pigment deposits on the corneal endothelium. In these cases, failure to consider the problems which may be caused by glare and peripheral aberrations following cataract surgery can result in an unhappy patient. In this case, a Morcher lens (**Figure 5**) was used to recreate an artificial pupil. Interestingly, the pigment deposits have largely disappeared, probably dislodged by the viscoelastic used to protect the corneal endothelium.

Weak zonules as occurs in **pseudoexfoliation (PXF)** (**Figure 6**) can significantly increase risks of nucleus dislocation and posterior capsule rupture. This is also associated with poorly dilating pupils and adds to the complexity of surgery. The use of intracapsular tension rings (**Figure 7**), to stabilise the capsule, and iris hooks to help dilate the pupil are helpful. A careful assessment of the dilated pupil area prior to surgery is important to anticipate this.

With **Fuch's dystrophy**, corneal decompensation may occur temporarily and occasionally permanently after surgery. The use of viscoelastics of high density can protect vulnerable endothelium, but the post-operative course can take longer. A careful assessment of endothelial appearance is crucial prior to surgery.

Small pupils can occur in pilocarpine therapy, senile miosis, posterior synechiae and PXF and all add to the complexities; iris hooks may be essential to facilitate safe surgery. An assessment of the dilating potential prior to surgery is useful.

It is important to stress that **diabetic retinopathy** can deteriorate soon after surgery, both proliferative retinopathy and maculopathy. These patients need careful counselling and pre-operative and post-operative scrutiny.

Shallow anterior chambers pose problems since endothelial contact is more frequent in shallow chambers, especially in dense cataracts where high ultrasound powers are required. Viscoelastics protect the cornea, but these eyes can be problematical. Post acute glaucoma is a typical example.

Deep chambers and liquefied vitreous



Figure 3
Posterior synechiae



Figure 4
Trauma



Figure 5
Morcher implant

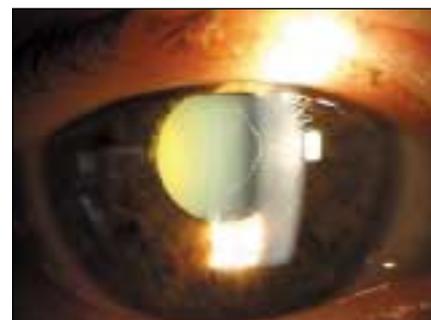


Figure 6
Pseudoexfoliation



Figure 7
Intracapsular tension ring

tend to make **myopic cataracts** sink deeper into the eye during surgery and retinal detachment rates are higher in these eyes, especially those greater than 6.00D.

An **only eye**, whilst not a greater operative risk, means that any potential complication becomes much more significant and plays an important consideration during counselling.

Difficult ocular access from deep-set eyes, pronounced brows and facial features can have significant implications for ease of access and a different approach may need to be considered (e.g. temporal).

Corneal scarring can hamper the intra-operative view making the surgery more difficult and the outcome less predictable.

Refractive surgery affects the corneal curvature such that our traditional keratometry readings can be misleading, giving inaccurate data for IOL calculation. It is crucial to obtain a history of the refractive state prior to refractive surgery in these patients.

Counselling considerations

Although cataract surgery is, in the main, successful, this article has shown that many factors can influence the outcome. Whilst some of these factors are unpredictable, many are not, and so the surgeon will be aware that some patients have a higher risk of complications than the norm. As the person responsible for performing the surgery, this will affect their counselling of the patient and is undoubtedly one of the reasons that some patients appear to change their minds about surgery, despite careful counselling by the optometrist.

These cases should not be regarded as a failure of counselling. Where factors begin to affect the potential difficulty of surgery, it would not be appropriate to put the patient off in advance of seeing the surgeon. Practitioners simply have to ensure that the patient has a complete understanding of the procedure they are to undergo, so that they can make an informed decision about whether they proceed with surgery.

About the authors

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**Framework for the Optometric
Co-Management of
Patients with Cataract**





Introduction

Cataract is a major cause of visual impairment, particularly in the older population. In a sample population aged 65 and older, cataract was the cause of impaired vision in 55% of the sample¹. Cataract can be successfully treated by surgery and the cataract no longer has to be 'ripe' before surgery can be undertaken. The Government's commitment to streamlining cataract referrals² has resulted in optometrists being more involved in pre- and post-operative management of cataract patients.

Existing schemes

Many co-management schemes have already been established across the country. These schemes can vary from simply a re-designed referral form for patients who have cataracts, through to an in-depth pre-referral assessment by the optometrist involving dilated funduscopy and counselling the patient prior to a referral, to a full scheme involving both pre-operative and post-operative assessment of patients with cataracts. Optometrists considering setting up a cataract co-management scheme should consult the protocols of existing schemes, such as those available on the Association of Optometrists' website (www.assoc-optometrists.org.uk) to see which best suits their needs. The aim of this framework document is to help optometrists to address the points that need to be considered when drawing up such a scheme.

Factors influencing the decision to refer for surgery

1. Consent

The optometrist will be obtaining the patient's consent to referral for a possible operation. It is unlikely that the optometrist will be obtaining the actual consent for surgery to take place. However, if the patient is unlikely to consent to undergoing the operation, there is little point in a referral (although the optometrist may wish to refer the patient for other reasons, such as co-existing eye disease).

When the patient gets to hospital, he or she must be able legally to consent to the operation. This involves an understanding of the risks and benefits the operation may bring, and an understanding of the procedure that is involved. The national cataract survey found that the risk of serious, sight-threatening complications within three months of a cataract operation is extremely low (<0.2%³). Although 23% of all

¹ Reidy, A., Minassian, D.C., Vafidis, G., Joseph, J, Farrow, S., Wu, J. Desai, P. and Connolly, A. Prevalence of serious eye disease and visual impairment in a north London population: population based, cross sectional study *BMJ* 1998;316:1643-1646

² Action on Cataracts Good Practice Guidance, NHS Executive, February 2000

³ Desai P, Minassian DC, Reidy A. National cataract survey 1997-98: a report of the results of the clinical outcomes. *Br J Ophthalmol* 1999; 83: 1336-40



patients experienced one or more complications within 48 hours of surgery, the great majority of these were minor, self limiting events. The most frequently recorded events were corneal oedema (9.5%), raised intraocular pressure (7.9%), and uveitis (5.6%). The national cataract survey listed complications during surgery as⁴:

Complications occurring during the operation	
	Frequency (%)
Choroidal haemorrhage	0.1
Capsule rupture and vitreous loss	4.4
Loss of nuclear fragment into vitreous	0.3
Any complication	7.5
Complications occurring within 48 hours of surgery	
	Frequency (%)
Corneal oedema	9.5
Wound leak/rupture	1.2
External infection	0.06
Endophthalmitis	0.03
Any complication	23.3
Sight Threatening Complications within 3 Months of Surgery	
	Frequency (%)
Endophthalmitis	0.1 (95% CI 0.10 - 0.20)
Retinal detachment or tear	0.1 (95% CI 0.10 - 0.20)

In case there is a complaint later on, it is important that there is a record that the benefits and risks of cataract surgery have been explained to the patient. This should be well before the day of surgery ⁵.

In all cases information should be provided in a format that is accessible to the patient eg. written, large print, audio etc. The patient being given such information should receive a copy of that information in their desired format.

⁴ Desai P, Minassian DC, Reidy A. National cataract survey 1997-98: a report of the results of the clinical outcomes. Br J Ophthalmol 1999; 83: 1336-40. Taken from the Scottish Intercollegiate Guidelines Network guideline on cataract day case surgery (<http://www.sign.ac.uk/guidelines/fulltext/53/index.html>)

⁵ Action on Cataracts Good Practice Guidance, NHS Executive, February 2000, para 3.4.13



2. Assessment of Risks versus Benefits for Patients

No operation is without risks. These may be from the surgical procedure itself or from the anaesthetic. Most patients undergoing cataract surgery are elderly, and an assessment of the patient's health should be considered when discussing risks with the patient, although this may not be within the province of the optometrist. There may also be a very slight risk that the good (i.e. unoperated) eye may be at risk from sympathetic ophthalmia and it has been held that a patient should be warned about this if they have expressed concern about the risks to the good eye⁶.

There is little point in undergoing cataract surgery if the cataract is not affecting the patient's lifestyle in some way. The decision to operate or not will be influenced by the ratio of risk to benefit. The less the patient will benefit from the surgery (i.e. if they are not really having problems before surgery) the less any risk is acceptable. Factors to consider will be co-existing eye disease, although the patient may still benefit from having their cataract removed even if they have other eye disease as well (e.g. AMD) and the patient's daily activities (i.e. what they would like to be able to see after their operation). Monocular patients in particular should be carefully counselled, as for them both the risks and the benefits will be higher than in patients with two good eyes and only one affected by cataract.

The patient should also be warned that there is a possibility that their vision may not be clearer after they have had the operation. This may happen because of underlying pathology that was not detectable until the cataract was removed, or because there may be complications either during or after the operation. They may also have problems adapting to the new spectacles they will need after the operation (this is discussed below).

3. Patient's attitude to surgery

The only treatment for cataract is surgery, so if the patient is unwilling or unable to have an operation, their cataract will not be removed. Currently, there is no medical treatment for cataract, and the AREDS (Age Related Eye Diseases) study did not show any significant link between the taking of anti oxidant vitamin supplements and the formation of cataract⁷.

⁶ Rogers v Whittaker (1992) 67 ALJR 47 Australian High Court.

⁷ A randomised placebo-controlled, clinical trial of high-dose supplementation with vitamins C and E and beta carotene for age-related cataract and vision loss. AREDS Report No.9. Arch Ophthalmol. 2001;119:1439-1452



After surgery

The patient should be told about the likely change in refractive status that surgery will cause. This is particularly important if the patient has had a refractive shift caused by the cataract. The surgeon may elect to return the patient to their pre-cataract refractive state. Factors to discuss with the patient include

- possible change in astigmatic correction
- anisometropia
- the advantages of protection against ultra-violet radiation

The removal of a cataract may also change the eye with which the patient prefers to see. This may mean that the spectacle lens in the non-operated eye may also need to be changed to keep the patient comfortable.

Working in teams

It is important to include all local stakeholders in negotiations when setting up a cataract referral/management scheme. This should include not only local ophthalmologists, but also GPs, the hospital trust, primary care organisation(s) and patient representatives.

Local negotiation should dictate the actual information to be included in the cataract referral. Consideration should be given to:

- The measure of visual acuity or lifestyle improvement to be used
- Information on discs, cornea, macula and intra-ocular pressures
- The use of contrast sensitivity charts and if used, whether this should be for distance and/or near
- The additional medical information to be included and whether this should come from the GP, or whether the GP should be included for information only (with a right to veto the referral if necessary)
- Participation in the scheme and in particular whether all optometrists in the area should be invited to take part or whether the scheme should be restricted to selected optometrists who have undertaken accreditation
- Means of assuring non-participating optometrists that their patients will be encouraged to return to them for subsequent dispensing. This is essential in the interests of good local intra-professional relationships.

Accreditation

Optometrists are familiar with, and able to diagnose cataract, and additional training should not be necessary to enable them to do this. However, local protocols should dictate any 'scoring' system for visual impairment, and practitioners should be familiar with dilated indirect ophthalmoscopy methods to enable them to exclude co-existing



morbidity in patients with cataract. Local protocols should indicate whether these patients should be referred inside or outside the cataract scheme. Accreditation may consist of one or more lectures about modern techniques of cataract extraction, together with the possible complications that may arise. It is important that practitioners are familiar with these issues, as patients may ask questions about them.

Pre-operative assessment

Requirements will be for local agreement but ideally this should include a normal eye examination, together with a fundal examination through dilated pupils using an indirect viewing method, such as the Volk lens. Fundus photography may not give a clear picture in the presence of cataract. An assessment of the anterior chamber should be made, together with habitual pupil size and the type, location and severity of any cataract present (in both eyes). A diagram of the cataract is particularly helpful.

The practitioner should also assess the patient's external eye as any lid infection such as active blepharitis is a contra-indication to surgery and must be resolved prior to the operation. If such a condition is present the optometrist should arrange treatment of this, particularly if the optometrist is listing the patient for surgery under the cataract scheme.

Patients should be questioned about their lifestyle, including whether they drive, in order to ascertain whether or not the cataract is interfering with their daily activities. Patients should be asked about the expectations they have of their vision in order to gauge the extent of the problem. Practitioners should not pre-judge whether or not a cataract is causing a problem to any individual patient as every patient has different visual needs. Consideration should be given to factors such as the impact of visual impairment on lifestyle and whether or not the patient is working, driving or caring for others.

The practitioner should discuss the options for surgery with the patient, and should give the patient an information booklet. This should include information about what a cataract is (and what it is not), treatment options and what to do before and after surgery. This information should be in large print or audio format if necessary. Additional information can be obtained from organisations such as the RNIB and the Royal College of Ophthalmologists.

The patient should be given an approximate timetable of events. This could include an estimated time when the patient will be first seen at the hospital, how long he or she will have to spend at the hospital for



the operation (most operations are now day case surgery), the number of post-operative visits and when the patient can return to be refracted for new spectacles. Patients should be warned that they may take some time to adapt to new spectacles. They should also be warned about the possibility of induced anisometropia after the first eye has been operated on.

Post-operative assessment

Patients will be directed to their optometrist for a spectacle refraction after they have undergone their operation even if the optometrist is not involved in a post-operative assessment of the patient under a formal cataract scheme. It is helpful if practitioners are aware of the usual sequence of hospital visits and medication prescribed following cataract surgery, so that consistent messages are given to patients. Exact medication protocols following surgery vary but a typical regime would be either a steroid for around 4 weeks, gradually reduced and an antibiotic for 2 weeks; or a combined steroid/antibiotic for around 4 weeks gradually reduced. The patient will usually return for a spectacle refraction 4-6 weeks after surgery (though they may not have to wait this long).

Optometrists may be involved in post-operative assessment of the patient. The exact protocol will be for local agreement. If the protocol includes post-operative refraction (after a suitable settling down period) it should be made clear to patients that they are free to have any spectacles dispensed at the practice of their choice. The possible difficulty in adapting to their new spectacles should be stressed, and the reasons explained. It is helpful if the prescription that is given to the patient includes a note of the VAs attained, in case there is a non-tolerance.

Subsequent management and second eye surgery

The locally agreed protocol should include how to re-refer a patient for second eye surgery. Areas to be covered should include:

- HES listing arrangements and whether patients are listed for the second eye at the same time as the first eye
- How second eye cases with significant anisometropia are to be dealt with
- The necessity or otherwise for another optometric assessment
- Continuity of ophthalmological care and whether re-referrals should be addressed in general terms or to a named consultant
- The mechanisms for referral following posterior sub-capsular thickening



Key benefits of co-management schemes

Key benefits are anticipated as:

- Improved standards of care
- A more accessible, community-based service
- Reduction in waiting times for initial appointment and surgery
- Potential to meet current unmet demand
- Improved team-working and communication between professionals

Audit

Any co-management scheme should build in audit from the outset and patients should be asked for their consent to audit. The purpose of audit is to assess the effectiveness of the scheme, improve standards and develop future services. Topics for audit can include the number of patients who are counselled but decide not to be referred (yet) for surgery; the number of patients who are counselled but do decide to be referred; the number of patients who are referred for cataract but decline surgery at the hospital and the number of patients who are referred for cataract and go ahead with surgery. Post-operative success can be measured either with a patient questionnaire, or by pre-determined clinical measures of success such as post-operative visual acuity and residual prescription. The system itself can also be audited with measures such as the speed of referral process and how long the patient has to wait for their hospital appointment.

Funding

For a scheme to succeed adequate funding has to be available and this issue has to be addressed as part of the scheme's development. If schemes are to succeed, there will need to be properly identified funding streams to ensure the provision of appropriate and improved clinical services.

Additional information

The Royal College of Ophthalmologists produces a patient information leaflet 'Understanding Cataracts' (<http://www.rcophth.ac.uk/publications/cataracts.html>). The Royal National Institute for the Blind also produces patient information on cataracts (<http://www.rnib.org.uk/info/cataract.htm>).