## Guidelines and Pathway for Optometrists

This scheme allows accredited optometrists to assess patients with cataract in the community, and refer those who are visually disabled by cataract directly to the Luton & Dunstable Hospital.

The patient must have significant cataract affecting their vision and daily life and the patient must want surgery in compliance with the Beds & Herts Priorities Forum statement Number 31: Clinical threshold for elective cataract surgery Dated: August 2015.

<table>
<thead>
<tr>
<th>Clinical thresholds for elective cataract surgery</th>
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<td>Referral of patients with cataracts to ophthalmologists should be based on the following indications</td>
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1. The patient has sufficient cataract to account for the visual symptoms. **AND**

2. The patient has best corrected visual acuity (BCVA) of 6/12 or worse in the worst eye and the reduced visual acuity is impairing their lifestyle:
   - the patient is at significant risk of falls
   - the patient’s vision is affecting their ability to drive
   - the patient’s vision is substantially affecting their ability to work
   - the patient’s vision is substantially affecting their ability to undertake leisure activities such as reading, watching television or recognising faces; **OR**

3. The patient has BCVA of better than 6/12 in the worst eye but they are working in an occupation in which good visual acuity is essential to their ability to continue to work e.g. watchmaker, microsurgeon; **OR**

4. The patient has bilateral cataracts, neither of which fulfils the threshold for surgery, but which together reduce binocular vision below the DVLA standard for driving; **OR**

5. The patient has BCVA of better than 6/12 in the worst eye but they are experiencing some other significant impact on their quality of life, as a result of their visual symptoms. *A description of this impact must accompany the referral information; AND*

6. The patient is willing to have cataract surgery: The referring optometrist or GP has discussed the risks and benefits using an approved information leaflet (national or locally agreed) and ensured the patient understands and is willing to undergo surgery before referring.
The accredited optometrist will undertake a pre-operative assessment, working to a specific protocol. The aim of the pre-operative assessment is to:

- Diagnose the cataract and ensure that the patient wants surgery
- Counsel the patient with verbal and written information about cataract surgery
- Identify any ocular co-morbidity that may limit the visual outcome of surgery
- Identify factors in the patient’s medical, psychological or ocular state that may interfere with the ability to operate safely or to operate under local anaesthetic (See Appendix 1)
- If relevant, discuss refractive outcome e.g. if myopic, do they wish to retain some myopia

Referral is via a standard form and will be screened by one of the Hospital Optometrists and/or Consultants in order to identify any patients who may require an additional examination prior to surgery (See Appendix 2).

Patients will attend a nurse-led pre-operative assessment clinic shortly before the date of surgery, during which there will be a general health assessment and biometry performed.

The patient will meet the surgeon on the day of the surgery. The surgeon will check all the details, examine the patient and answer any final questions and obtain informed consent.

Following surgery, the patient will leave the Eye Day Surgical Unit (EDSU) with an advice sheet, drops and emergency contact numbers.

**All direct-referred patients with uncomplicated cataract surgery will be asked to attend an accredited optometrist for a post-operative assessment at approximately 5 weeks post-op.** If there are any complications during surgery, the patient will be examined at the hospital clinic, timing to be determined by the surgeon.

Some patients may need attendances in addition to their post-operative attendance at the accredited optometrist:

- Patients with ocular co-morbidity may also require booked hospital follow-up at an appropriate time interval eg diabetic patients and those with glaucoma.

The accredited optometrist will undertake a post-operative assessment, working to a specific protocol. The aim of the post-operative assessment is to:

- Review patient’s post-operative history and any symptoms
- Undertake refraction and assess acuity
SHARED CARE CATARACT SCHEME
LUTON & DUNSTABLE HOSPITAL

- Assess for any post-operative complications (See Appendix 3)

The patient can then be referred for their second eye operation if required, or discharged by the accredited optometrist.
Shared Care Cataract Pathway

Patient with cataract

Accredited optometrist

Referral screened by HES

L&D Preop Assessment (Nurses)

L&D EDSU

Accredited optometrist Post-op check 5 weeks

L&D Eye Clinic

Complicated op

List other eye

Complications

Discharge
PRE-OPERATIVE ASSESSMENT

History and Symptoms

What is the presenting complaint?

General History
   Occupation/Driver
   Social (Living) status

Visual Symptoms
   General blur/reduced vision
   Glare
   Difficulty reading or other specific tasks
   Difficulty with mobility (steps/kerbs etc)

Ocular History
   Amblyopia/strabismus
   Glaucoma
   Diabetic Retinopathy
   Previous Ocular Surgery
   Previous Refractive Surgery

Medical History/Allergies
   Hypertension, ischaemic heart disease, stroke
   Diabetes
   COPD/Asthma
   Neck/back problems
   Severe mental/psychiatric problems
   Allergies to any medication etc.
   Hearing impairment/ language difficulties

Medication
   Anti-coags: Warfarin, Heparin, Apixaban
   Anti-platelets: Aspirin, Clopidogrel
   Alpha-blockers: Doxazosin, Tamsulosin,

Refraction

Previous refraction (and visual acuity if available).
Date of previous Rx
Present refraction and BCVA
PH acuity
Ocular Assessment

Pupil responses (Inc RAPD)

Slit Lamp Examination of Anterior Segment
- Eye Lids (e.g. blepharitis, entropion, ectropion)
- Cornea, including careful look for guttata/ endothelial changes
- A/C Depth - Van Herick grading
- Pupil (adhesions, shape)
- Any other abnormalities (e.g. Pseudoexfoliation)

Intra-ocular pressure (& method used)

Dilated Fundus Examination
- Pupil (degree of dilation)
- Lens: Type and density of cataract
- Optic Disc: CD ratio, pallor
- Macula: signs of AMD
- Fundus – any abnormalities

Before Referral check:

<table>
<thead>
<tr>
<th>Does the patient want cataract surgery?</th>
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<td>- Only refer if they <strong>want</strong> surgery</td>
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<tr>
<td>- Reduced visual function caused by cataract must be interfering with daily activities in order to be considered for surgery</td>
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<tr>
<td>- Discuss risks and benefits of surgery</td>
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<th>Identify potential problems for tolerating local anaesthetic surgery:</th>
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<td>- Are they able to co-operate &amp; communicate for local anaesthetic (lie flat &amp; keep still for 30 mins etc)?</td>
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<td>- Any problems with positioning (eg back, neck, breathing, cough)?</td>
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<tr>
<td>- Are there any significant communication/comprehension/anxiety concerns?</td>
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<th>Patient information</th>
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<td>- Offer choice</td>
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<td>- Provide information leaflet</td>
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<tr>
<td>- Advise about referral process</td>
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<tr>
<td>- Ask patient to sign referral form (as an agreement to be listed for surgery)</td>
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To Refer for Surgery

Complete the Direct Referral for Cataract Surgery form

Send Hospital copy to:

Akil Kanani, Lead Optometrist
Eye Department, Ophthalmology
Luton & Dunstable Hospital
Lewsey Road
Luton, LU4 0DZ

Send a copy to patient’s GP

Retain a copy for your own records.

POST-OPERATIVE ASSESSMENT (~5 Weeks)

History and Symptoms
Any significant problems/symptoms
Compliance with drops, they should have finished using the eye drops after 4 weeks
Perception of visual improvement

Refraction
Unaided Acuities
Refraction and BCVA

Slit Lamp examination
Degree of redness
Wound
Corneal clarity/oedema
AC activity
IOL Position
Significant posterior capsule opacity
Pupil/Iris abnormalities
IOP
Fundoscopy

Refer for second eye if required
Please indicate if patient able to attend at short notice.
SHARED CARE CATARACT SCHEME
LUTON & DUNSTABLE HOSPITAL

To Return Post-Operative Assessment Form
A copy of the assessment form should be sent to:

Akil Kanani, Lead Optometrist
Eye Department, Ophthalmology
Luton & Dunstable Hospital
Lewsey Road
Luton, LU4 0DZ

To Refer back to Eye Clinic
Patients should be referred back to the Eye Clinic if there are signs of undiagnosed pathology or unexpected abnormalities. Anything other than emergency or urgent referrals can be referred using the post-op assessment form.

Emergency
- Suspected endophthalmitis

Urgent
- Retinal detachment/retinal tear/flash/floaters
- Wound closure problems
- IOP>40mmHg
- Marked iritis

Soon
- IOP>28mmHg
- Corneal oedema
- Unexpected IOL displacement
- Persistent mild/moderate iritis
- Severe Diabetic retinopathy
- Drop allergy

Routine
- Significant symptomatic PCO
- Cystoid macular oedema
- Refractive surprise
- Suspected glaucoma
- Patient not happy with outcome

For urgent enquiries:
Office hours please contact Acute Clinic at L&D on 01582 718320;
or bleep the nurse practitioner via switchboard 01582 491166

Out of hours / weekends contact Luton and Dunstable on-call ophthalmologist on 01582 491166
Appendix 1: Relevant preoperative factors to be identified

Factors that may interfere with the patient keeping still or lying flat or tolerating a local anaesthetic

- Anxiety, dementia, severe deafness, comprehension problems, communication problems, claustrophobia
- Cough, breathing problems/ chest disease (eg asthma, chronic bronchitis), severe heart disease, neck stiffness, spinal curvature (Ask patient can you lie flat and still for 30 mins?)
- Young patients (<50 years)
- Patient requests general anaesthesia

Factors we need to be aware of before booking on topical anaesthetic list

- On Alpha Blockers
- Lid squeezers

Medical factors that may make it unsafe or difficult to perform surgery

- Severe angina, severe chest disease, uncontrolled diabetes, uncontrolled hypertension
- On warfarin
- Any active infection (eg leg ulcer)

Conditions of the eye that may limit the visual outcome

- Glaucoma
- Age-related macular degeneration
- Diabetic retinopathy
- Previous retinal detachment
- Amblyopia
- Optic atrophy
- Dense cataract precluding visualisation of the fundus

Conditions of the eye that may interfere with the ability to do the operation safely

- Blepharitis
- Corneal opacities
- Corneal guttatae or Fuch’s endothelial dystrophy
- Shallow anterior chamber
- Pseudoexfoliation
- Poorly dilating pupil
- White cataract
- Very dense brown nuclear cataract
- High myopia or hypermetropia
Appendix 2: Criteria for review in hospital eye clinic

- High myopia (> -6D)
- High hypermetropia (> +6D)
- Previous refractive surgery or laser
- Previous retinal detachment surgery
- Significant corneal disease or scarring
- Eye lid problems eg entropion, ectropion, trichiasis, severe blepharitis, marked ephiphora
- Other serious or undiagnosed ocular pathology eg uncontrolled glaucoma, marked macular degeneration etc
- Dense or white cataract
- Unclear what anaesthetic required from information provided
- Other complicating factors at discretion of optometrist

Appendix 3: Post-operative problems requiring referral to hospital

**Endophthalmitis**
Refer: Emergency - immediate
Infection inside the globe.
Presents as painful, red eye with poor vision.
Severe iritis usually with hypopyon.
Opaque vitreous with poor view of fundus

**Marked iritis**
Refer: Urgent
Uncomfortable and slight blurring of vision
Ciliary injection, marked cells and flare
Sometimes a problem as tapering drops
Can be the start of endophthalmitis

**Significant Wound Closure Problems**
Refer: Urgent
May be asymptomatic.
Wound edges may not seal together which presents as a wound gape, a wound plugged with prolapsed iris tissue, or may be Seidel test +ve.
If severe leakage from eye, IOP will be low and AC shallow.

**Retinal detachment and retinal tear**
Refer: Urgent
Presents as flashes and floaters, and possibly visual field loss or reduction in acuity (if retina detached).
Maybe a PVD, but need referring if shortly after cataract surgery
Higher risk in high myopes, and those with serious operative complications.
Raised IOP
Refer IOP>40mmHg Urgent
Refer IOP>28mmHg Soon
Usually occurs in first few days following surgery, but can persist longer. If severe may be associated with reduced acuity and corneal oedema.

Corneal oedema
Refer: Soon
Presents as blurred vision and corneal opacity with sometimes visibly increased corneal thickness and Descemet's membrane folds. Mild corneal oedema is common in first few weeks following surgery. Usually resolves over time. Must ensure not caused by raised IOP. Rarely does not recover and requires corneal graft.

Drop allergy
Refer: Soon
Presents as sore, itchy red eye +/- skin rash on lids

IOL displacement
Refer: Soon
Presents as reduced vision, increased astigmatism and monocular diplopia. IOL may be partially or completely displaced from central position across the pupil (up/down or occasionally forwards/backwards). May see part of the IOL in front of pupil/iris, or iris trapped behind part of IOL. Pupil may be distorted. More obvious with dilated pupil

Cystoid macular oedema
Refer: Routine
Presents as blurred vision, usually delayed onset after surgery. VA reduced, may be Amsler distortion, and swelling or cysts visible at macula. More common in diabetic, even if no retinopathy.

Deteriorating diabetic retinopathy
Refer: Severe DR -Soon
Diabetic retinopathy can sometimes deteriorate rapidly after surgery, even to the point of frank maculopathy or new vessels requiring laser treatment.

Posterior capsular opacification
Refer: Routine
The commonest complication, causes reduction in vision and loss of transparency behind the IOL. Usually occurs after several months – years, but occasionally occurs early. Can be treated with simple laser therapy if significant symptoms and opacity. All patients being discharged from care should be warned of the possibility of this complication

Refractive surprise
Refer: Routine
Patient’s refraction does not match the predicted outcome, or there is significant unplanned anisometropia. Anisometropia in between surgery for first and second eye is common,
Also refer back
- Painful eyes
- Persistent red eye
- Unexplained reduced visual acuity (ie if not known AMD, amblyopia, or other such disorder limiting vision in predicted manner)
- Diplopia
- Other complications or unexpected findings
- Any patient unhappy with vision/care/outcome