Luton and Dunstable University Hospital
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SHARED CARE CATARACT SCHEME
LUTON & DUNSTABLE HOSPITAL

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.

Clinical thresholds for elective cataract surgery

Referral of patients with cataracts to ophthalmologists should be based on the following indications

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.

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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

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- 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.

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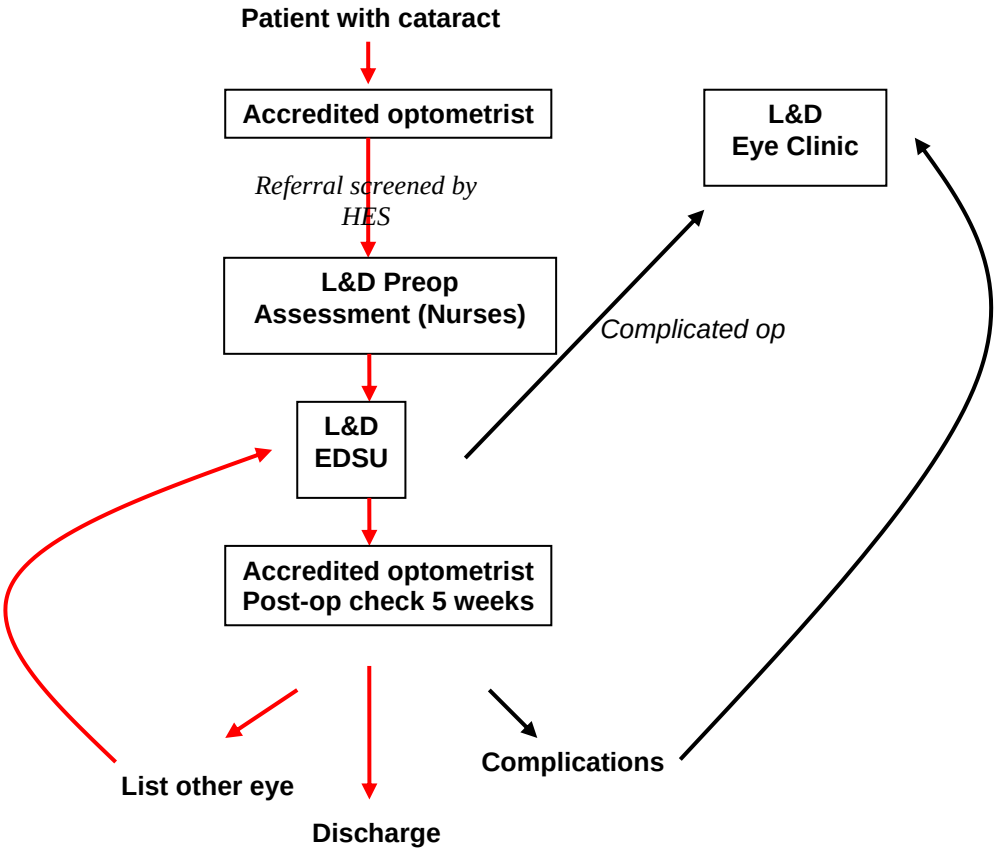
Shared Care Cataract Pathway



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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

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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:

Does the patient want cataract surgery?
- Only refer if they **want** surgery
- Reduced visual function caused by cataract must be interfering with daily activities in order to be considered for surgery
- Discuss risks and benefits of surgery

Identify potential problems for tolerating local anaesthetic surgery:
- Are they able to co-operate & communicate for local anaesthetic (lie flat & keep still for 30 mins etc)?
- Any problems with positioning (eg back, neck, breathing, cough)?
- Are there any significant communication/comprehension/anxiety concerns?

Patient information
- Offer choice
- Provide information leaflet
- Advise about referral process
- Ask patient to sign referral form (as an agreement to be listed for surgery)

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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.

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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/flashes and 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**

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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

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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 epiphora
- 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.

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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,

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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