



The **ROYAL COLLEGE** of  
**OPHTHALMOLOGISTS**

---

Ophthalmic Services Guidance

# Referral pathways for ocular tumours

August 2022

---

18 Stephenson Way, London, NW1 2HD, T. 02037705322

contact@rcophth.ac.uk @rcophth.ac.uk

The Royal College of Ophthalmologists 2022 All rights reserved.

For permission to reproduce any of the content contained herein please contact contact@rcophth.ac.uk

---

## Contents

---

Section	page
1. Introduction	3
2. Whom to refer to the service	3
Patients with intraocular tumours	3
Patients with conjunctival and epibulbar tumours	4
3. Whom not to refer to the service	4
Intraocular tumours	4
4. How to refer	6
Suspected retinoblastoma	6
All other tumours	6
All patients	6
5. Ocular oncology service contact details	7
Adult Ocular Oncology Services	<b>Error! Bookmark not defined.</b>
Retinoblastoma Services	7
6. Links	8
7. Authors	8

Date of review: October 2023

## 1. Introduction

---

In 1997 Liverpool, London and Sheffield were designated as supraregional centres for adult ocular oncology in England by the National Commissioning Group (formerly the National Specialist Commissioning Advisory Group). The National Services Division in Scotland similarly designated a service for Scotland at North Glasgow University Hospital.

These guidelines are not prescriptive. They are intended to improve the referral of adult patients to the nationally designated ocular oncology centres for specialist care, provided remotely or in-person. Referring ophthalmologists should continue to exercise discretion based on their expertise as well as the clinical features and circumstances of each individual patient.

## 2. Whom to refer to the service

---

### Patients with intraocular tumours

#### Retinal/RPE tumours

- Retinal haemangioblastoma
- Vasoproliferative tumour
- Vitreoretinal lymphoma
- Retinoblastoma
- Retinocytoma / spontaneously regressed retinoblastoma

#### Uveal tumours

- Melanocytic choroidal tumour having a MOLES score of 3 or more (Table 1):
- Choroidal haemangioma with subretinal fluid and/or symptoms
- Choroidal osteoma
- Lymphoma

#### Iris Tumours

- Melanocytic iris tumour with any of the following:
  - Diameter > 5.0 mm
  - Diffuse growth or seeding
  - Secondary glaucoma or cataract
  - Angle involvement
- Iris cyst threatening vision (e.g., large size or documented growth)

#### Other tumours

- Any ciliary body tumour
- Any metastatic or paraneoplastic tumour if specialist ocular oncology is required
- Any suspected tumour recurrence after treatment
- Any unlisted primary intraocular tumour indicating an ocular oncology opinion.

## Patients with conjunctival and epibulbar tumours

- Nodular melanocytic tumour if any of the following:
  - Involving non-bulbar conjunctiva
  - Growth after teenage years
  - Diameter > 5 mm
  - Feeder vessels
  - Diffuse pigmentation.
- Primary acquired melanosis if any of the following:
  - Recent growth
  - Involving more than a third of the conjunctiva
  - Involving non-bulbar conjunctiva
- Squamous/sebaceous carcinoma (intraepithelial or invasive)
- Lymphoma
- Any suspected tumour recurrence after treatment

## 3. Whom not to refer to the service

---

### Intraocular tumours

#### Retinal/RPE/ciliary epithelial tumours

- Astrocytic hamartoma(s), unless uncertain diagnosis
- Retinal cavernous angioma
- Arteriovenous malformation
- Congenital hypertrophy of retinal pigment epithelium
- Combined hamartoma of the retina and RPE

#### Uveal tumours

- Probable choroidal naevus (i.e., MOLES score <3 ([Table 1](#))).
- Congenital ocular melanocytosis unless a tumour is present
- Melanocytoma of disc if less than 2 mm in thickness
- Choroidal haemangioma if no serous retinal detachment
- Iris arteriovenous malformation

#### Conjunctival and adnexal tumours

- Complexion-associated melanosis
- Primary acquired melanosis if:
  - No recent growth
  - No thickening
  - Involvement of less than 1/3 of bulbar conjunctiva
- Probable naevus because:
  - Visible cysts
  - Involving only bulbar conjunctiva
  - No feeder vessels
  - No growth after second decade of life
- Eyelid and orbital tumours

[Note: Scottish patients with eyelid and orbital tumours can be referred to the Scottish service].

---

Table 1 The MOLES acronym and scoring system for categorising melanocytic choroidal tumours according to likelihood of malignancy

Risk Factor	Severity	Score
Mushroom shape	Absent	0
	Unsure/Early growth through RPE	1
	Present, with overhang	2
Orange pigment	Absent	0
	Unsure/Trace (i.e., dusting)	1
	Confluent clumps	2
Large Size*	Thickness < 1.0 mm ('flat/minimal thickening') and diameter < 3 DD	0
	Thickness = 1.0 – 2.0 mm ('subtle dome') and/or diameter = 3-4 DD	1
	Thickness >2.0 mm ('significant thickening') and/or diameter >4 DD	2
Enlargement	None (or no previous ophthalmoscopy)	0
	Unsure (poor image quality or 'new lesion' but no previous photo)	1
	Definite** or assumed, if thickness > 3.0 mm or diameter >5DD	2
Subretinal fluid	Absent	0
	Trace (if minimal and detected only with OCT)	1
	Definite (if seen without OCT or extending beyond tumour margins)	2
Total Score:		

Score	Category	Suggested management
0	'Common naevus'	Monitoring by optometrist in community
1	'Low-risk naevus'	Monitoring by optometrist or ophthalmologist
2	'High-risk naevus'	Monitoring by ophthalmologist
3	'Probable melanoma'	Urgent referral to ocular oncologist

DD = disc diameter (=1.5 mm)

\*Ignore thickness if this cannot be measured

\*\*Confirmed with sequential photography

## 4. How to refer

---

### Suspected retinoblastoma

Refer to the nationally designated retinoblastoma services in London or Birmingham: Urgently e-mail specified contacts and phone to confirm that referral has been received.

### All other tumours

- Inform patient of differential diagnosis, need to keep appointment, and what to do if no letter is received by specified date.
- Review latest guidelines (See references below).
- Refer electronically and securely (unless patient consents otherwise) using NHS e-Referral Service (eRS) or 1st-class post.
- If tumour is malignant or if treatment is urgent, follow NHS 2-week-wait protocol for suspected cancer. Within 24 hours of decision to refer:
  - Send GP and patient confirmation of referral (e.g., copy of referral letter).
  - Give patient a number to phone if appointment letter is not received in 2 weeks.
  - Ensure that referral has been received by hospital.
- Optometrists and GPs, refer to general ophthalmologist (NOT ocular oncologist).

### All patients

- Include in referral the following:
  - Patient's name, date of birth, NHS number, address, phone number (including mobile number), e-mail address
  - Names, addresses, fax and phone numbers of referrer, GP and optometrist
  - Clinical history, ophthalmic findings, and any relevant diagnostic reports
  - Results of any recent blood tests or scans (Do not perform conjunctival biopsies and never delay a referral because of any investigations.)
  - Recent images of lesion (colour, optical coherence tomography, autofluorescence imaging, ultrasound)
  - Oldest available images, if tumour growth has been documented
  - Special needs and preferences of patient (e.g., interpreter)

All referrals are vetted by an ocular oncologist to avoid non-essential, in-person consultations by triaging patients to a virtual clinic or a video-/phone-consultation. If such measures are not possible because adequate information and image(s) of the lesion are not submitted (without good reason), these will need to be requested by the oncology centre, which will delay the patient's care.

All ophthalmologists can refer patients to any centre. In Scotland, patients should be referred to centres other than Glasgow only in exceptional circumstances and after obtaining approval from National Services Division NHS Scotland.

## 5. Adult Ocular oncology service contact details

---

### Liverpool

Ocular Oncologists: Professor Heinrich Heimann, Miss Rumana Hussain  
Address: Ocular Oncology Service, 8Z Link, St Paul's Eye Unit, Royal Liverpool University Hospital Prescott Street, Liverpool L7 8XP  
Phone: 0151 706 3973 Fax: 0151 706 5436  
E-mail: [Jenny.pendlebury@liverpoolft.nhs.uk](mailto:Jenny.pendlebury@liverpoolft.nhs.uk) URL: [Looc@liverpoolft.nhs.uk](mailto:Looc@liverpoolft.nhs.uk)

### London

Ocular Oncologists: Professor Mandeep Sagoo  
Address: Ocular Oncology Service, Moorfields Eye Hospital. 162 City Rd, London EC1V 2PD  
Phone: 020 7521 4639 Option 3 or Secretariat: 0207 253 3411 Ext: 4872/2267  
Fax: 0207 566 2073 or 2972 E-mail: [meh-tr.ocularoncology@nhs.net](mailto:meh-tr.ocularoncology@nhs.net)  
URL: <https://www.moorfields.nhs.uk/service/ocular-oncology-eye-tumours>

### Sheffield

Ocular Oncologists: Mrs Umiya Harley, Ms Hibba Quhill, Mr Paul Rundle, Mr Sachin Salvi  
Address: Sheffield Ocular Oncology Service, Department of Ophthalmology, Royal Hallamshire Hospital, Glossop Road, Sheffield S10 2JF  
Phone: 0114 271 2179 (Amanda Peat Ocular Oncology Service Co-ordinator)  
E-mail: [sht-tr.cancer-ocularoncology@nhs.net](mailto:sht-tr.cancer-ocularoncology@nhs.net)

### Glasgow

Ocular Oncologists: Mr Paul Cauchi, Mr Vikas Chadha, Ms Julie Connolly  
Address: Susan Ewan, Service Administrator, Ocular Oncology Service, Gartnavel General Hospital, 1053 Great Western Rd, Glasgow G12 0YN  
Phone: 0141 211 0124  
E-mail: [susan.ewan@ggc.scot.nhs.uk](mailto:susan.ewan@ggc.scot.nhs.uk)

### Retinoblastoma Services

#### Birmingham

Ocular Oncologists: Mr. Manoj Parulekar  
Address: Birmingham Children's Hospital, Steelhouse Lane, Birmingham B4 6NH  
Phone: 0121 3339462 Fax: 0203 594 3262  
Email: [bwc.eyedepartments@nhs.net](mailto:bwc.eyedepartments@nhs.net)

#### London

Ocular Oncologists: Professor Mandeep Sagoo, Mr. Ashwin Reddy  
Clinical Nurse Specialists: Laura Reynolds/Maxine Fraser  
Address: Retinoblastoma Service, 2nd Floor, Main Building, The Royal London Hospital, Whitechapel, London E1 1BB  
Phone: 0203 594 1419 Fax: 0203 594 3262  
E-mail: [bhnt.London\\_Retinoblastoma@nhs.net](mailto:bhnt.London_Retinoblastoma@nhs.net)  
URL: [Ophthalmology - Barts Health NHS Trust](http://Ophthalmology - Barts Health NHS Trust)

## 6. Links

---

- College of Optometrists guidelines: [Pigmented Fundus Lesions](#)
- [NHS: Delivering cancer waiting times. A good practice guide](#)

## 7. Authors

---

This service guidance was written by the National Ocular Oncology Group, which is nationally commissioned by NHS England and NHS Scotland.