



The ROYAL COLLEGE of  
OPHTHALMOLOGISTS

## **A FLEXIBLE CURRICULUM FOR OPHTHALMOLOGY SUBMISSION FOR THE SHAPE OF TRAINING MAPPING EXERCISE**

The Ophthalmic Specialist Training (OST) curriculum is already geared towards ophthalmologists with a Certificate of Completion of Training (CCT) having a wide range of skills. At the time of CCT registrars are competent at managing common ophthalmic conditions and also in recognising a wide variety of rarer conditions by initiating further subspecialist referral and arranging investigations if necessary [Curriculum Statement: The Royal College of Ophthalmologists <http://curriculum.rcophth.ac.uk/statement>]. The aim of 'Shape of Training' is to enhance focused patient care and to reduce emergency hospital admissions by improving community care. This document sets out The Royal College of Ophthalmologists (RCOphth) response and a proposed curricular pathway.

### **A. Ophthalmology is distinguished by a number of characteristics that set it apart from other specialties. These include:**

1. Majority of the workload of ophthalmologists takes place in the out-patient setting (6.5 million appointments per year) with very little access or use of inpatient beds, either elective or emergency [Health and Social Care information Centre [www.hscic.gov.uk](http://www.hscic.gov.uk)].
2. Trainees literally have to start from scratch when they enter an ophthalmology specialist training programme because little ophthalmology is taught at undergraduate level and the clinical examination of the eye and orbit requires skills in using and interpreting advanced technical equipment which are unique to ophthalmology and largely non-transferable.
3. UK Ophthalmologists currently perform the most common elective surgical procedure in the world, cataract operations, performing on average 330,000 per year in the NHS [Day AC, Donachie PH, Sparrow JM, Johnston RL – Eye (Lond), 2015 Feb 13]. This operation and others requires training in the use of an operating microscope and microsurgical techniques, very different from those skills acquired in general surgery.

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4. Ophthalmic surgical outcomes are very effective in restoring vision. Cataract surgery has 2% complication rate, and as such patient expectations are very high. Therefore any alteration to surgical training must ensure that these excellent quality outcomes are maintained as well as reducing the cost of complications.
5. Ophthalmologists have the advantage of working as part of multidisciplinary teams that include other professionals such as orthoptists, optometrists, and imaging technicians who offer skills which are exclusive to eye care with very little transferability to other specialties. These other cadres have the potential to take on primary care, monitoring, screening and general ophthalmology roles whilst the role of the ophthalmologist requires sub-specialty and team leadership expertise.
6. The recent advancement of anti-VEGF treatment for conditions such as age-related macular degeneration, diabetes and vein occlusion has brought with it a 16% increase in the number of new referrals to eye clinics, with patients attending for monthly injections and appointments [[www.hscic.gov.uk/](http://www.hscic.gov.uk/)]. So the challenge for ophthalmology lies not in the emergency demand (although we do have to effectively deal with this) but on the burden of long-term follow up for which very different solutions need to be found.
7. End-point of treatment failure is blindness and very rarely death except in some exceptional cases.
8. Strong Optometry workforce (Opticians) in the community.

As with the other 'ologies' it remains unclear if Ophthalmology was taken into account when Sir David Greenaway devised his recommendations for 'Shape of Training'.

#### **B. Acknowledged problems with the current curriculum and training include:**

1. Currently there are two disparate routes to becoming an Ophthalmology Consultant: the majority of trainees follow an ophthalmology curriculum but a few take the medical ophthalmology route. There is no commonality or flexibility in entry, curricula, examination and accreditation of Ophthalmology (considered to be surgical ophthalmology, under RCOphth) and Medical Ophthalmology (under the Joint Royal College of Physicians Training Board, JRCPTB) specialist training. Trainees have to choose from the outset which route they will take and are unable to change without re-interview and completion of a new suite of exams if they either struggle with the surgical aspects or prefer the medical aspects of ophthalmology. This is neither in patients' nor the individual registrar's interests.
2. The surgical orientation of ophthalmic training does not match disease prevalence and the association of ophthalmic problems with systemic diseases. The workload for medical ophthalmologists has expanded rapidly in recent years; the treatment of inflammatory eye disorders has developed considerably, as has the complexity and cost of their management. The approval of anti-VEGF and other treatments for age related macular degeneration and retinal vascular disorders and the exponential rise

in Type 2 diabetes in the population has also considerably added to the numbers of patients seen who do not require surgery. The RCOphth is therefore keen to promote Medical Ophthalmology as a specialty.

3. Workplace Based Assessments (WpBAs) are used as both formative and summative assessments simultaneously and cover multiple small competencies but global competency assessments are absent.
4. Lack of consistent formal induction to the specialty prior to clinical exposure, especially in urgent referral/eye casualty clinics where, in some centres, registrars are under-supported.
5. Some registrars lose generalist skills before the time of CCT because they are concentrating on one specific sub-specialty area.
6. Due to the reduction in training times and the introduction of Independent Sector Treatment Centres (ISTCs) there have been some issues in trainees acquiring sufficient surgical experience at the end of run-through training. Surgical numbers do reflect competency [reference: Saleh et al, Arch Ophthalmol 2007; 125(3): 363-366 and further reduction in training times may affect quality].
7. Although included in the curriculum, Management, Leadership and Research skills have not been assessed formally throughout training and a recent College survey of senior registrars and newly appointed consultants shows that these groups feel that their skills in this area are lacking and there is a feeling that the stimulus for research development and academic pursuit has been stifled. Recent GMC initiatives will require that these generic competencies are embedded into the curriculum.

### **C. Service Provision**

The problem of service provision generally in Ophthalmology has not received sufficient attention. It is impossible to devise a training programme for an unknown service provision. Some have argued that the large outpatient workload in our specialty would be best served by a greater number of 'generalist' consultants. The College has debated this and disagrees because a team approach would provide a more efficient use of skills and would enhance the outcomes for patients, and the training of all staff. The College feels that there is a more convincing argument to be made for:

1. Transferring some elements of care into the primary care and/or community sector
2. Both in our hospital clinics and the primary care setting, better use of other medical eye health care professionals (optometrists, orthoptists, ophthalmic nurses, ophthalmic science practitioners and potentially ophthalmic associates).
3. Better use of technology and IT so that other medical eye health care professionals in the community can perform some of the patient care, with consultant-led review remotely and electronically, particularly for chronic conditions
4. Development of relationships and funding that cross the primary/secondary care interface

This will necessitate teaching, technology and leadership skills to be strengthened in the curriculum and adequately assessed.

Ultra vires, if the historically poor exposure of undergraduates to ophthalmology is not addressed there is no likelihood of stemming the ever increasing referral numbers to the specialty. Equally if optometrists are to become an integral part of the eye-care journey then their training needs to reflect these new responsibilities.

#### **D. Generalism v Specialism**

Over the past 20 years the role of the consultant with a specialist skill (e.g. vitreoretinal surgery) has dominated recruitment requirements from Trusts, for good reason:

1. Modern ophthalmic care has undergone significant levels of specialisation with different subspecialties managing increasingly complex surgical procedures and non-surgical interventions. These require doctors to acquire a relevant, specific set of skills. In addition, patients with complex medical problems require ophthalmologists trained to address these (such as the prescribing and monitoring of immunosuppressive drugs).
2. Specialisation produces better outcomes for patients. It is widely documented that increased volume leads to better outcomes and surgical skills [Thompson JA, Snead MP, Billington BM, Barrie T, Thompson JR, Sparrow JM. National audit of the outcome of primary surgery for rhegmatogenous retinal detachment. II. Clinical outcomes. *Eye (Lond)* 2002; 16(6):771-7] [Teenan DW, Sim KT, Hawksworth NR. Outcomes of corneal transplantation: a corneal surgeon vs the general ophthalmologist. *Eye (Lond)* 2003; 17(6):727-30].
3. Patients drive specialism. The demand for the latest, best and most timely diagnosis seems to be the norm amongst “well-informed” patients. As clinical outcomes become widely available, patients will likely choose ophthalmic units with reported/publicised good outcomes [Britnell M. The role of the “specialist” in healthcare. *Clin Med (Northfield II)* – Internet]. Royal College of Physicians; 2011 Aug 1 [cited 2015 Mar 17]; 11(4):329–31. Available from: <http://www.clinmed.rcpjournals.org/content/11/4/329.full>]
4. The drive towards evidence-based medicine requires all health professional to maintain professional standards by knowing the relevant specialty guidelines. Specialists usually have an extensive, well-grounded knowledge of guidelines and updates with regards to their specialty which they have translated to practice and therefore understand the 80% that fit in with guidelines, but more importantly, the 20% that do not.
5. Sub-specialty training usually attracts doctors invested in developing their skills throughout their career and will often motivate a proportion to engage in research based/academic training.

6. Sub-specialism, combined with a wide generalist knowledge, has enabled intermediate to advanced ophthalmic care to be delivered far closer to the patients' home, leaving only the most complex work requiring a more costly and more inconvenient journey to a regional centre. This is in accord with recent strategy announced by Simon Stevens, Chief Executive of NHS England.

**E. Could the time taken to achieve a Certificate of Specialty Training (CST) in ophthalmology be shortened?**

The view of the Training Committee and the Ophthalmologists in Training Group is that, for the majority of registrars, seven years is necessary and cannot be shortened for the following reasons:

1. In both the Calman and MMC reforms, it was identified that reduction in training times would need to be compensated for with more intense training (i.e. less service provision and more dedicated training time under the direct supervision of a consultant), but this was not reflected in training budgets or sufficient time for development of educators or newer methods of learning and thus was not reflected in the delivery of the reforms. Although the Greenaway report reiterated these principles, it is highly unlikely that in the present economic climate this will materialise and there has been no further mention of these said principles since the report was published. In fact, in many centres, time allowed for consultants to engage in training activities is being reduced.
2. Registrars, in some regions, are struggling to achieve their surgical competencies. A recent review of log books at present CCT shows that many have little or no experience of managing per-operative complications or training more junior registrars in the operating theatre.
3. As argued above there needs to be a greater emphasis in training on Management & Leadership, Research and Teaching skills and time needs to be allocated to allow this as per the recent GMC guidelines.
4. Best clinical practice in the context of economically sound care is delivered by a team approach utilising the most appropriate professionals coordinated to contribute to the delivery of successful patient care. The clinical experience of doctors remains an evidence-based predictor of good clinical outcomes. Training is essential to obtain such levels of experience to provide safe independent ophthalmic practitioners. The current model of training appears to deliver value to the taxpayer with lower remunerated doctors in training providing service provision whilst gaining experience under the supervision of the traditionally defined consultant.

## F. A Flexible Curriculum for Ophthalmology

Key features of the proposed curriculum are as follows:

1. Greater harmonisation between 'surgical' ophthalmology and medical ophthalmology training in the early and latter parts of training and a common examination structure including an earlier assessment of basic clinical examination and diagnostic skills.
2. Ability to move from one curriculum to the other without multiple entry interviews.
3. Opinion varies amongst medical ophthalmologists as to the value of holding the MRCP. To some it is a badge of having attained 'physicianly' skills and mind set. To an increasing majority it is an unnecessary qualification, involving time and effort that could be better spent on more useful training. Whether this means the term physician is used or not is irrelevant to many who see the term "medical ophthalmologist" as entirely appropriate and would like to graduate at CST with the FRCOphth. The RCOphth firmly believes that it would not be appropriate to mandate that medical ophthalmology registrars undertake two suites of examinations (MRCP and FRCOphth), although some individuals might choose to do so and the timetable for training should confer the flexibility to allow this. This stance is supported by our Lead Dean.
4. We strongly believe that 18 months of relevant medical experience (e.g. neurology, rheumatology, dermatology, haematology, endocrinology) is necessary for a medical ophthalmologist. How this is achieved without formally joining a Core Medical Training (CMT) scheme will require discussion with JRCPTB and Heads of School in Medicine.
5. Opportunity in the first 1-2 years for training alongside other members of the multi-professional eye health care workforce.
6. A more time developed curriculum with exposure to various aspects of surgery and medical training being more intensive, including simulated surgical training, rather than slower and less predictable progress over a longer period of time.
7. Greater emphasis in later years of training on generic professional skills including management and leadership skills, quality improvement and research and training/education skills.
8. Absolute requirement for general ophthalmic skills to be maintained and demonstrated as being maintained in the later years of training so that patients benefit by not needing to attend multiple eye clinics unnecessarily.
9. Enhanced supervision and training in emergency ophthalmic care so that registrars acquire the necessary experience and competencies to diagnose and manage the most difficult and serious ophthalmic problems that can present to the urgent referral/eye casualty clinics.
10. Given the common lack of previous ophthalmology teaching/clinical exposure, greater requirement for proper induction to the specialty.

11. A new curricular requirement for all registrars to show appropriate knowledge of and competency in medical conditions that have a common interface with ophthalmology.
12. Opportunity/requirement for a community ophthalmology attachment.
13. More complex and advanced sub-specialty training would be undertaken post CST as credentialed fellowships. However, it is important in the future that revalidation of a credential does not adversely influence consultant work patterns (i.e. does not insist that a skills are maintained in one small area for which there is no demand in a particular setting).

## **G. Assessment of a competent ophthalmologist**

1. The present system of large numbers of individual competency assessments, each often testing a very small area of practice/skill, and combining both summative and formative elements is widely acknowledged to be a mere tick-boxing exercise of little worth. If anything they interfere with training rather than supporting it and do little to enhance patient safety by highlighting a trainee in difficulty.
2. Many of our current assessments should become more formative in nature (supervised learning events, SLEs). For summative assessments (Assessment of Performance, AOP) a greater emphasis should be placed on clinical and educational supervisor reports and this will require a great deal of training and feedback to bring rigour and consistency to the process.
3. Summative Assessment should also include the ability to perform the activities of a competent ophthalmologist, i.e. more global assessments such as the ability to run a clinic in a timely manner whilst making sensible and safe decisions about patients, running an entire operating or laser list etc. – so called ‘entrusted professional activities’ (EPAs). An experienced supervisor would assess these.
4. Both formative and summative assessments to be more formally linked to curricular requirements to ensure that the entire curriculum is covered.
5. Both the medical and surgical ophthalmology curricula would include the opportunity for spiral learning of the common general ophthalmology component in the latter stages of training, which would emphasise its importance.
6. The examination system would be developed further and mapped to the new curriculum to ensure formal high stakes assessment of medical and surgical ophthalmologists, covering common and disparate knowledge, skills and competencies in an efficient manner.

We believe that our response to the Shape of Training report will improve patient service whilst maintaining patient safety and quality of outcome. We think we have captured the sense of the ‘SoT’ Report in not jettisoning what is working well but altering the curricula to better equip our registrars to work as Ophthalmologists in the decades ahead and to make transfer between Medical Ophthalmology and Surgical Ophthalmology more straightforward than at present.

## Acknowledgement

Some of the principles and nomenclature used in this submission have been copied from the curriculum proposed by the JRCPTB for internal medicine. It would seem sensible for Colleges to achieve congruity of approach where this is feasible and we have adopted these rather than use alternatives.

### RCOphth Shape of Training Group

|                  |  |
|------------------|--|
| Andrew Castillo  | Chair Evaluation of Training Sub-committee                               |
| Andrew Dick      | Academic Group   |
| John Ferris      | Chair Recruitment Sub-committee  |
| Richard Gale     | Chair Medical Ophthalmology SAC  |
| Mike Hayward     | Immediate past Chair Training Committee & APD HEYH                       |
| Greg Heath       | Medical Ophthalmology Registrar  |
| Clare Inkster    | Chair Quality of Assessment Sub-committee & APD HENW                     |
| Karinya Lewis    | LTFT Ophthalmology Registrar   |
| Carrie MacEwen   | President  |
| Stuart McGimpsey | Training Committee member  |
| David Millar     | Ophthalmologists in Training Group                                       |
| Fiona O'Sullivan | Head of the London School of Ophthalmology                               |
| Steve Naylor     | Ophthalmologists in Training Group                                       |
| Ranjeet Pandit   | Consultant Medical Ophthalmologist                                       |
| Fiona Spencer    | Chair Training Committee & immediate past Chair Curriculum Sub-committee |
| Peter Tiffin     | Chair Examinations Committee   |
| Chris Wall       | Lay Representative   |
| Mark Watts       | Chair Education Committee  |

## EXAMPLE FRAMEWORK FOR THE ASSESSMENT OF A COMPETENT OPHTHALMOLOGIST

|   | COMPETENCE IN PRACTICE LEADING TO A 'ENTRUSTED ACTIVITY'                                      | RELEVANT COMPETENCE FROM THE CURRENT OST AND MED OPHTH CURRICULA AND GMC GENERIC PROFESSIONAL RESPONSIBILITIES  |
|---|---|---|
| 1 | <b>Ophthalmic history taking and ophthalmic examination</b>                                   | <ul style="list-style-type: none"> <li>• basic and clinical science</li> <li>• clinical assessment and record keeping</li> <li>• communication</li> <li>• time management</li> </ul>  |
| 2 | <b>Managing urgent ophthalmic conditions when on call</b>                                     | <ul style="list-style-type: none"> <li>• clinical skills</li> <li>• knowledge of common urgent ophthalmic presentations</li> <li>• underlying causes and comorbidities</li> <li>• therapeutics and prescribing</li> <li>• communication and shared decision making</li> <li>• time management and decision making</li> <li>• patient as a central focus of care</li> <li>• team working and patient safety</li> <li>• leadership</li> <li>• handover</li> <li>• breaking bad news</li> <li>• prioritisation</li> <li>• personal behaviour</li> <li>• recognising own limitations</li> </ul>                         |
| 3 | <b>Appropriately order and interpret ophthalmic investigations detailed in the curriculum</b> | <ul style="list-style-type: none"> <li>• basic and clinical science</li> <li>• clinical knowledge and skills</li> <li>• patient safety</li> <li>• prioritisation</li> <li>• dealing with complexity and uncertainty</li> <li>• use of resources</li> <li>• communication and shared decision making</li> <li>• therapeutics and prescribing</li> </ul>  |
| 4 | <b>Managing elective outpatient clinics and common ophthalmic conditions</b>                  | <ul style="list-style-type: none"> <li>• basic and clinical science</li> <li>• clinical skills</li> <li>• specific competencies of subspecialties required for general ophthalmic care</li> <li>• underlying causes and comorbidities</li> <li>• therapeutics and prescribing</li> <li>• communication and shared decision making</li> <li>• time management and decision making</li> <li>• patient as a central focus of care</li> <li>• team working and patient safety</li> <li>• leadership</li> <li>• handover</li> <li>• breaking bad news</li> <li>• prioritisation</li> <li>• personal behaviour</li> </ul> |
| 5 | <b>Managing an ophthalmic urgent referral clinic</b>  | <ul style="list-style-type: none"> <li>• clinical skills</li> <li>• knowledge of wide range of ophthalmic conditions and presentations</li> <li>• underlying causes and comorbidities</li> <li>• therapeutics and prescribing</li> <li>• communication and shared decision making</li> <li>• time management and decision making</li> <li>• patient as a central focus of care</li> <li>• team working and patient safety</li> <li>• leadership</li> <li>• handover</li> <li>• breaking bad news</li> <li>• prioritization/ triage</li> <li>• personal behaviour</li> </ul>   |

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|    |   | <ul style="list-style-type: none"> <li>dealing with complexity and uncertainty</li> </ul>  |
| 6  | <b>Understanding medical conditions that interface with ophthalmic practice (including dementia and learning disabilities) and basic life support</b>   | <ul style="list-style-type: none"> <li>underlying causes and co-morbidities</li> <li>therapeutics and prescribing</li> <li>communication and shared decision making</li> <li>clinical knowledge and skills</li> <li>patient as a central focus of care</li> <li>dealing with complexity</li> <li>team working and patient safety</li> <li>safeguarding vulnerable groups</li> <li>basic resuscitation (including dealing with anaphylaxis)</li> <li>basic assessment of anaesthetic risk</li> </ul>  |
| 7  | <b>Competent in laser treatments and other procedural skills as defined by the curriculum e.g. intra-ocular injections, use of Botulinum Toxin etc.</b> | <ul style="list-style-type: none"> <li>procedural competencies</li> <li>correct training in the use of specialist medical equipment and devices, safety checks and reporting systems</li> <li>team working and patient safety</li> <li>communication and shared decision making</li> <li>relevant health and safety regulations &amp; measures</li> </ul>  |
| 8a | <b>Managing a cataract/theatre list</b>   | <ul style="list-style-type: none"> <li>clinical knowledge and skills</li> <li>procedural competencies</li> <li>team working and patient safety</li> <li>communication and shared decision making</li> <li>guidelines and legal framework</li> <li>therapeutics and prescribing</li> </ul>  |
| 9a | <b>Ability to deal with all ophthalmic conditions and surgery required of a General Ophthalmologist</b>   | <ul style="list-style-type: none"> <li>clinical skills</li> <li>knowledge of wide range of ophthalmic conditions and presentations</li> <li>underlying causes and comorbidities</li> <li>therapeutics and prescribing</li> <li>communication and shared decision making</li> <li>time management and decision making</li> <li>patient as a central focus of care</li> <li>team working and patient safety</li> <li>dealing with complexity and uncertainty</li> </ul>  |
| 8b | <b>Understanding of interactions of ophthalmic treatment with systemic conditions and their appropriate management and referral where necessary.</b>    | <ul style="list-style-type: none"> <li>General medical clinical skills and knowledge</li> <li>knowledge of wide range of ophthalmic conditions and presentations</li> <li>underlying causes and comorbidities</li> <li>therapeutics and prescribing</li> <li>communication and shared decision making</li> <li>time management and decision making</li> <li>patient as a central focus of care</li> <li>team working and patient safety</li> <li>leadership</li> <li>handover</li> <li>breaking bad news</li> <li>prioritisation</li> <li>personal behaviour</li> <li>dealing with complexity and uncertainty</li> </ul> |
| 9b | <b>Management of ophthalmic conditions and treatment to the level required by a Consultant Medical Ophthalmologist</b>                                  | <ul style="list-style-type: none"> <li>general medical clinical skills and knowledge</li> <li>knowledge of wide range of ophthalmic conditions and presentations</li> <li>underlying causes and comorbidities</li> <li>therapeutics and prescribing</li> <li>communication and shared decision making</li> <li>time management and decision making</li> <li>patient as a central focus of care</li> <li>team working and patient safety</li> </ul>   |

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|    |  | <ul style="list-style-type: none"> <li>dealing with complexity and uncertainty</li> </ul>   |
| 10 | <b>Acting as a clinical supervisor</b>   | <ul style="list-style-type: none"> <li>able to supervise, support and teach less experienced registrars in their clinical assessment and management of patients</li> <li>able to supervise, support and teach less experienced registrars in performing appropriate practical procedures</li> <li>able to act as a Clinical Supervisor to the standard required by the GMC</li> <li>training, coaching, mentoring of medical and non-medical staff</li> </ul>   |
| 11 | <b>Facilitate the social and visual rehabilitation of patients with low vision as part of a team &amp; contribute to the prevention of the burden of visual impairment in a population</b> | <ul style="list-style-type: none"> <li>Clinical skills (refraction)</li> <li>Basic science (optics)</li> <li>Equality and diversity</li> <li>Application of technology</li> <li>Role in NHS and social services</li> <li>Communicate with colleagues &amp; team working</li> <li>Safe guarding vulnerable groups</li> <li>Holistic patient care</li> <li>health prevention and promotion</li> <li>maternal &amp; child health</li> <li>NHS structure</li> <li>Principles of screening &amp; surveillance</li> <li>Communication and team working with primary health care</li> <li>Epidemiology of causes of Visual Impairment</li> </ul> |
| 12 | <b>Delivering effective quality improvements in patient care</b>   | <ul style="list-style-type: none"> <li>quality improvement including audit, evidence and guidelines</li> <li>principles of quality and safety improvement</li> <li>prioritisation of patient safety in clinical practice</li> <li>patient as the central focus of care</li> <li>innovation</li> </ul>   |
| 13 | <b>Consultant management and leadership skills; working within NHS organisation and management systems</b>   | <ul style="list-style-type: none"> <li>leadership</li> <li>business planning</li> <li>management, NHS structure, the independent sector, the community</li> <li>evidence and guidelines</li> <li>consent</li> <li>systems and medical error, Serious Incidents (Sis), complaints</li> <li>communication with colleagues &amp; team working</li> <li>principles of quality and patient safety improvement</li> </ul>   |
| 14 | <b>Performing research and managing and interpreting data appropriately</b>  | <ul style="list-style-type: none"> <li>Performing research and managing and interpreting data appropriately</li> <li>ability to undertake recruitment to trial and trial engagement and management</li> <li>Engage and competency in the principles, governance and undertaking of research and academic writing</li> <li>ability to carry out data synthesis and critical appraisal of the literature</li> <li>understanding of principles of applied health research and epidemiology as it relates to ophthalmology</li> <li>innovation</li> </ul>   |
| 15 | <b>Personal development</b>  | <ul style="list-style-type: none"> <li>self-learning and use of a range of tools to effect this</li> <li>reflective practice</li> <li>simulation</li> <li>engagement with portfolios &amp; PDPs</li> <li>developing insight</li> </ul>  |

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| 16 | <b>Dealing with ethical and legal issues related to clinical practice including management of a medical, procedural or surgical complication or error</b> | <ul style="list-style-type: none"><li>• legal framework for practice including guidelines</li><li>• principles of consent</li><li>• principles of medical ethics</li><li>• confidentiality</li><li>• principles of health &amp; safety related to ophthalmology departments</li><li>• safeguarding vulnerable groups</li><li>• Reflection</li><li>• Duty of candour</li><li>• Communication</li><li>• Patient safety</li><li>• Clinical knowledge and skills</li><li>• Dealing with complexity and uncertainty</li></ul> |
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| Blueprint for a flexible ophthalmology curriculum |   |   |   |   |  |  |     |
|---|---|---|---|---|--|--|-----|
| TRAINING YEAR                                     | ST1                                       | ST2   | ST3   | ST4   | ST5  | ST6  | ST7 |
|   | PRELIMINARY OPHTHALMIC REGISTRAR TRAINING |   |   | SENIOR OPHTHALMIC REGISTRAR TRAINING  |  |  |     |
| FOCUS<br>(ALL REGISTRARS)                         | OPD                                       | OPD (out-patient department)  |   | OPD   | OPD/Primary Care   | Sub-specialty & General Leadership skills    |     |
|   | Basic Science                             | Cataract Surgery (simulated and operating theatre)                              |   |   |  |  |     |
|   | Clinical Examination                      | Management of Interaction of general medicine with ophthalmic conditions<br>OPD |   | Research Technology   |  |  |     |
|   | Common Conditions and Treatments          |   |   |   |  |  |     |
|   | Simulated cataract surgery                |   |   |   |  |  |     |
| FOCUS<br>(SURGICAL OPHTHALMOLOGY)                 |   |   | Cataract Surgery (simulated and operating theatre)<br>Other surgical skills | OPD   | Higher cataract and strabismus/glaucoma / Oculoplastic surgical skills | Maintain Cataract Surgical skills            |     |
|   |   |   |   |   |  | Clinical and surgical sub-specialty training |     |
| FOCUS<br>(MEDICAL OPHTHALMOLOGY)                  |   |   | OPD   | Training in Medicine<br>Neurology<br>Rheumatology<br>Endocrinology<br>Haematology | Training in Medicine continued<br><br>Medical Ophthalmology OPD        | Medical Ophthalmology Training               |     |

| Level to be achieved by end of training year: Level 2 acting with direct supervision, Level 3 acting with supervision available quickly, Level 4 Acting unsupervised (but with consultant oversight) |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|
| 1. Ophthalmic history taking and ophthalmic examination  | 2 | 3 | 4 |   |   |   |   |
| 2. Managing urgent ophthalmic conditions when on call  | 3 | 4 |   |   |   |   |   |
| 3. Appropriately order and interpret ophthalmic investigations   | 2 | 3 | 4 |   |   |   |   |
| 4. Managing elective outpatients and common ophthalmic conditions  | 2 |   |   | 3 |   | 4 |   |
| 5. Managing an urgent (acute) referral Clinic  |   | 2 |   | 3 |   | 4 |   |
| 6. Understanding medical conditions that interface with ophthalmic practice (including dementia and learning disabilities and basic life support)  | 2 |   | 3 |   | 4 |   |   |
| 7 Competent in laser treatments and other procedural skills defined by the curriculum  | 2 |   |   | 3 |   | 4 |   |
| 8a. Managing a cataract /theatre list  |   | 2 |   | 3 |   | 4 |   |
| 9a. Ability to deal with all ophthalmic conditions and surgery required of a General Ophthalmologist   |   |   | 2 |   |   | 3 | 4 |
| 8b. Understanding of interactions of ophthalmic treatment with systemic conditions and their appropriate management and referral where necessary   |   |   | 2 |   | 3 |   | 4 |

| Level to be achieved by end of training year: Level 2 acting with direct supervision, Level 3 acting with supervision available quickly, Level 4 Acting unsupervised (but with consultant oversight) |   |  |   |   |   |   |   |
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| 9b. Management of ophthalmic conditions and treatment to the level required by a Consultant Medical Ophthalmologist  |   |  | 2 |   |   | 3 | 4 |
| 10. Acting as a clinical supervisor  |   |  | 2 | 3 |   |   | 4 |
| 11. Facilitate the social and visual rehabilitation of patients with low vision as part of a team & Contribute to the prevention of the burden of visual impairment in a population                  |   |  | 2 |   | 3 | 4 |   |
| 12. Delivering effective quality Improvements in patient care  | 2 |  | 3 |   |   | 4 |   |
| 13. Consultant management and leadership skills, working within NHS organisation and management processes  |   |  | 2 |   | 3 |   | 4 |
| 14. Performing research and managing and interpreting data appropriately   | 2 |  | 3 |   |   | 4 |   |
| 15. Personal Development   | 2 |  | 3 |   | 4 |   |   |
| 16 Dealing with ethical and legal issues related to clinical practice including management of a medical, procedural or surgical complication or error  | 2 |  |   |   | 3 |   | 4 |

|   |   |  |  |   |  |  |
|---|---|--|--|---|--|--|
| LEARNING MUST INCLUDE<br>(ALL REGISTRARS)         | Adequate induction to the specialty<br>Clinical Examination and Common Urgent Conditions  |  |  |   | A minimum of 40 acute referral clinics<br>Research objectives set by curriculum<br>Clinical improvement project<br>Experience of Consultant management skills      |  |
|   | Exposure to Glaucoma, Strabismus, Medical Retina, Cornea and Oculoplastics                |  |  |   |  |  |
|   | Directly supervised exposure to urgent referral clinics                                   |  | Urgent referral clinics with Consultant presence   |   |  |  |
| LEARNING MUST INCLUDE<br>(SURGICAL OPHTHALMOLOGY) |   |  | Exposure to VR and Oculoplastics and Paediatrics<br><br>Refraction<br><br>At least 200 completed cataract cases by end of year 4 |   | Cataract Audit completed within 3 years of CCT<br>Relevant OPD and theatre activity for sub specialty  |  |
| LEARNING MUST INCLUDE<br>(MEDICAL OPHTHALMOLOGY)  |   |  |  | A minimum of 4/12 Geriatrics or acute medicine, 4/12 neurology and 4/12 rheumatology<br><br>Minimum 50 OPDs | Relevant OPD in Medical Ophthalmology<br><br>At least 20 OPD clinics in a related medical specialty  |  |
| ASSESSMENT MUST INCLUDE (ALL REGISTRARS)          | Part 1 MRCOphth (Written papers only)<br>AOP in Ophthalmic history taking and examination |  | Part 2 MRCOphth (Written and Clinical - to include refraction OSCE)  |   | AOPs in Consultation skills, leading & managing urgent referral clinics  |  |
|   |   |  | Refraction AOPs  |   |  |  |
| ASSESSMENT MUST INCLUDE (SURGICAL OPHTHALMOLOGY)  |   |  | Assessment of surgical potential   |   | AOPs in Surgical Ophthalmology (including management of entire surgical list) taken within 3 years of CCT date<br><br>FRCOphth (SO Test of Knowledge [TOK] & VIVA) |  |
| ASSESSMENT MUST INCLUDE (MEDICAL OPHTHALMOLOGY)   |   |  |  |   | AOPs in Medical Ophthalmology taken within 3 years of CCT date<br><br>FRCOphth (MO TOK & VIVA)   |  |
| WINDOW of DECISION/SELECTION SO or MO             |   |  |  |   |  |  |
| COMBINED TRAINING WITH OPHTHALMIC ASSOCIATES      |   |  |  |   |  |  |