



# Education and Training

## Frequently Asked Questions

### **“Frequently Asked Questions” document from The Royal College of Ophthalmologists for CESR (CCT specialty) applications**

#### ***What is the first question I should ask myself before considering applying for a CESR (CCT specialty – Ophthalmology)?***

Do I feel my training and experience to date is equal to that of a newly appointed Consultant in the NHS? Only proceed with your application if you are confident that the answer is yes.

#### ***What is the first thing I should do when applying for a CESR (CCT specialty- Ophthalmology)?***

Read all the relevant documents in detail. The documents include this document and the College document “2011 update for CESR applicants for CCT specialty – Ophthalmology” and look at the Specialty Specific Guidance (SSG) and other guidance on the GMC website. The evaluation is based on the current Ophthalmic Specialist Training (OST) curriculum and this web based College document must also be studied in detail. Keep checking the GMC and College websites for the latest information and guidance.

#### ***What is the standard for a CESR (CCT specialty) application?***

The standard is set by an Order of Parliament (not the College or GMC) and is at the level of someone who has just completed a CCT (Certificate of Completion of Training) programme in Ophthalmology and is about to be appointed as an NHS Consultant.

#### ***My training is very different to that of a UK based training programme, does this matter?***

CESR (CCT specialty) applications are about equivalence of training and not identical training. Training and experience (that is to say time spent in non-training posts) can count towards providing the evidence required for the CCT standard.

#### ***What is the minimum requirement for a CESR (CCT specialty- Ophthalmology) application?***

The minimum requirement is in fact very little. You need to have specialist training for a minimum of 6 months or a specialist postgraduate ophthalmology qualification (this does not have to be FRCOphth). It would be very unlikely however that you would obtain a CESR with this minimum requirement only. It is very important that you feel confident that you can provide evidence of all 180 learning outcomes of the OST curriculum before contemplating an application. A failed CESR (CCT specialty) application is an expensive process and attention to detail is the best way of ensuring success. It is likely that the “minimum requirement” may change in the near future so keep checking the GMC website for up to date information.

### ***Could you give me an overview of the application process?***

Read all the relevant documents in detail. Collect the evidence needed and ensure it has been appropriately validated. Inform your referees that their input is needed for the structured reports. Submit relevant documentation and evidence to the GMC. A Certification Adviser will be appointed by the GMC to assist in the application and obtain the structured reports.

When the application is thought to be complete it is submitted to The Royal College of Ophthalmologists for evaluation. A decision on the application has to be made within three months of the application arriving at the College.

The application is given to two assessors (one of which is an experienced Lead assessor) who are members of the Equivalence Faculty (members of the College Equivalence of Training Sub-committee and experienced assessors who have previously been on the committee).

The two assessors initially perform an independent evaluation using a standard form based on the four domains of the GMC's "Good Medical Practice" document. They then convene (usually via a teleconference) and discuss the application in detail and make a recommendation that is sent to the GMC from the College.

The GMC review the evaluation and if the recommendation appears clear and unambiguous make the appropriate decision. If the GMC feel that the recommendation is unclear or does not take all the evidence into consideration, then the case is referred to a GMC Certification Panel for further evaluation and a decision made.

### ***How is the evidence organised?***

The application and documentation in support of the application is based on the GMC's four domains of "Good Medical Practice". The structured reports and the evaluation form are also based on this four domain system. The table below summarises the four domains and the type of evidence associated with each domain. A more detailed summary of the evidence is available in Appendix 1:

Domain 1	Knowledge, Skills and Performance Qualifications Assessments and Appraisals Logbooks / Records of daily clinical practice Details of post and duties Research, publications and presentations CPD / CME Teaching and Training
Domain 2	Safety and Quality Participation in audit, service improvement Clinical governance Safety
Domain 3	Communication, Partnership and Teamwork
Domain 4	Maintaining Trust

### ***What are the curriculum requirements?***

All new CESR (CCT specialty - Ophthalmology) applications are assessed against the OST curriculum as this is the standard for obtaining a CCT. It is very important that the OST curriculum is studied in detail. It is a web-based College document and is divided into a total of 180 learning outcomes. If you can show validated evidence of competence in all these learning outcomes, then you will be successful in your application. The web-based document also has detailed guidance on how each learning outcome is evaluated (look at the Study Guide links).

### ***What if my training has not included Work-place Based Assessments?***

Work-place Based Assessments (WpBA's) are a relatively new way of assessing competence and were introduced in the UK as part of the Foundation Programme of training for doctors in the first 2 years after qualification. This form of assessment has not to date been commonplace in other parts of the world or in the UK prior to the establishment of the Foundation Training programme. It can therefore be difficult for applicants to retrospectively obtain evidence in this way. It must be emphasised however that WpBA's are only one way of obtaining evidence of competencies. It may be more appropriate for some applicants to provide evidence in the more "traditional" format associated with the BST (1999) /HST (March 2003) curriculum or a combination of this format and the WpBA format (see below). Evidence of non-surgical competencies can include compiling a logbook of cases seen in a particular specialist clinic with details of the patient (but not the patient's name), date, diagnosis and a statement of the nature of your involvement in the management of the cases. This logbook (casebook) must be validated by the supervising consultant.

### ***What format should the logbook of procedures take?***

Logbooks and cumulative data sheets (called consolidated record sheet by the GMC) are a very important part of the evidence that should be supplied to the GMC. Photocopies of operating lists and photocopies of theatre and laser record books are not satisfactory evidence of procedures. Proper logbooks should be supplied covering both surgical and laser procedures. If you did not keep a logbook at the time, a logbook should be created from the appropriate sources of information and then validated once you have made the logbook. The logbook should contain the following information:

- 1 Only procedures that you were personally involved in
- 2 Patient record number but not the name of the patient
- 3 Name of the hospital or clinic where procedure was performed
- 4 Date of the procedure
- 5 Full name of the procedure
- 6 Your role in the procedure i.e. assisted in the operation (A), performed yourself (P), performed under the direct supervision of someone more senior (PS), supervised a junior (SJ). Being in theatre and observing a procedure without assisting cannot be counted as evidence of training.

The logbook should start with a consolidated record sheet (*available in CESR section of College website*) summarising the total number of the various procedures mentioned in the logbook. If you supply more than one logbook

each logbook should have its own consolidated record sheet. Every page of the logbook needs validation. Logbooks provide primary evidence in the CESR (CCT specialty - Ophthalmology) application process and it is therefore very important for the applicant to provide the evidence in the correct format. The College website has useful suggestions as to the detailed format of logbooks and cumulative data sheets.

***What is the difference between primary evidence and secondary evidence?***

There are no hard and fast rules at present on this terminology but primary evidence carries more “weight” than secondary evidence. Primary evidence would include validated logbooks of surgical or laser procedures, WpBA’s, casebooks of patients seen and your involvement in their management, evidence of participation in audit, research and publications etc (this list is for example only and is not exhaustive). Secondary evidence is information from structured reports, testimonials etc.

***What does the term “triangulation of evidence” mean?***

Trainees in “run-through training” in Ophthalmology in the UK are assessed in a variety of ways to check they have the necessary competencies for the award of CCT. They have to pass the FRCOphth examination and have to keep an up to date portfolio with evidence of their training. This evidence is reviewed in detail every year at the ARCP (Annual Review of Competence Progression). Evidence of competence for learning outcomes is derived from a variety of independent sources (such as logbook evidence, educational supervisor’s reports and WpBA’s). The term “triangulation of evidence” relates to obtaining evidence from independent sources, assessing the “weight of evidence” and degree of concordance between sources, then making a judgment regarding the trainee’s competence for that learning outcome.

A similar process occurs with CESR (CCT specialty - Ophthalmology) evaluations. The assessors are more likely to pass the applicant as competent with a particular learning outcome if evidence is obtained from several sources and in particular if evidence is primary rather than secondary.

***Are Work-place Based Assessments counted as primary or secondary evidence?***

A completed WpBA in the format requested by the College relating to a specific learning outcome will count as primary evidence towards competence in that learning outcome. Many ARCP panels request a minimum of 2 WpBA’s from independent sources to provide evidence towards competence in a specific learning outcome and this would also strengthen the “weight of evidence” for the CESR (CCT specialty - Ophthalmology) applicant.

A simple list of all 180 OST learning outcomes individually countersigned by a Consultant saying “meets expectations” is secondary evidence of competence in these learning outcomes only. A global statement by the referee in the structured report saying that “the applicant is competent in all 180 learning outcomes of the OST curriculum” is secondary evidence with relatively weak “weight of evidence” Both these examples of evidence will not in themselves be sufficient to show competence and further primary evidence will be

needed. An applicant that provides a long list of Case based Discussion (CbD) type WpBA's all obtained within a very short period of time (a few days) is unlikely to have spent sufficient time being engaged in the assessment process and the "weight of evidence" from such a list would be less than CbD's obtained over a greater period of time with different assessors. Any WpBA's submitted after October 2011 has to have the free text boxes at the end of the CbD form stating what feedback has been given (anything especially good, suggestions for development, action agreed) filled in with the appropriate feedback from the assessor. This is now a mandatory requirement for CCT candidates and as CESR applicants have the same standard it is also obligatory for you. If you submit a form without this free text included it will not be counted as evidence.

***I understand that the OST curriculum does not specify numbers of operations needing to be performed?***

The OST curriculum is outcome based and not time or number based. There is however an important document on the College web-site that should be read by the applicant as it also guides the evaluation of a CESR (CCT specialty - Ophthalmology) application. This document is entitled "Guide to the Delivery of OST" (Version 2.2, February 2009) and gives suggested minimum numbers of procedures performed leading up to CCT (Appendix 2). This document is based on the numbers required in the old BST/HST curricula. It is strongly advised that applicants should have reached the minimum number of procedures suggested in this document prior to applying for a CESR (CCT specialty - Ophthalmology). Attention should also be given to the advice about which procedures should be performed by the applicant and those in which the requirement is to have assisted only.

***What about the old BST / HST curriculum, is this still relevant?***

CESR (CCT specialty - Ophthalmology) applications were assessed against the BST (Basic Specialist Training) and HST (Higher Specialist Training) curricula until August 2007 when it changed to the OST curriculum. The BST/HST curricula were based on a more prescriptive approach with specific mandatory competencies and essential clinical experiences being required in each of the seven sub-speciality areas with minimum numbers of operations, clinics etc stipulated in order to obtain the CCT. These have been summarized in Appendix 3.

If an applicant can show that all the mandatory competencies and essential clinical experiences of the BST/HST curricula are met, then as the OST curriculum is equivalent to the BST/HST curricula, a CESR will be granted.

***Are the old seven sub-speciality areas of the HST curriculum still relevant?***

The seven sub-speciality areas are as stated below:

1. Oculoplastic Adnexal and Lacrimal surgery
2. Corneal and external disease
3. Cataract and refractive surgery
4. Glaucoma
5. Retina, Vitreous and Uvea (including ocular oncology)
6. Neuro-ophthalmology

## 7. Paediatric ophthalmology and strabismus

The greatest proportion of evidence submitted in a CESR (CCT specialty - Ophthalmology) application will relate to Domain 1 "Knowledge, Skills and Performance". Having the seven sub-speciality areas remaining on the evaluation form facilitates the evaluation process by helping organising the evidence in a logical way. As the CESR (CCT specialty - Ophthalmology) application is now evaluated against the OST curriculum it is useful to "map" the various learning outcomes in the OST curriculum to the seven sub-speciality areas and a suggested mapping is shown in Appendix 4.

### ***I do not have the FRCOphth, what can I do?***

The FRCOphth examination is a requirement for CCT and therefore CESR (CCT specialty - Ophthalmology) applicants need to show an equivalent body of knowledge and skills to the FRCOphth examination. The only examination that is automatically equivalent to the FRCOphth is the FRCSEd if obtained before June 2000 or the Specialty Fellowship in Ophthalmology by examination FRCSEd taken between January 2001 and August 2012. The restructured FRCSEd introduced in April 2008 is not accepted as equivalent. If you do not have an examination that is automatically equivalent then alternative evidence of equivalent skills and knowledge is required. This is usually in the form of a postgraduate specialist qualification but the GMC states however that this evidence does not have to be in the form of an examination (although it will be very unusual for someone to provide evidence without some form of post-graduate specialist qualification). One suggested mapping of the learning outcomes in the OST curriculum that relate to the FRCOphth examination is found in Appendix 5.

### ***What if most of my evidence is more than 5 years old?***

The standard for CESR (CCT specialty - Ophthalmology) applicants relates to someone about to obtain CCT and be appointed a Consultant in the UK. As a result of this standard the GMC place great emphasis on the competencies being "current and maintained". Evidence of training or experience within the last 5 years will therefore carry greater "weight of evidence" than more distant training or experience. If all surgical experience in certain subspecialty areas is a considerable time ago it is unlikely that the applicant will pass as the competence in these areas will not be "current and maintained". The applicant is advised in this situation to ensure that some surgical experience in these subspecialty areas takes place within 5 years of submitting the application.

### ***I have evidence from the College e-portfolio. Do I need to download this evidence to paper format and have it validated?***

The GMC states that e-portfolio evidence does need to be downloaded into paper format and then validated by the relevant supervising consultant. The GMC is of the opinion that there is potential for downloaded documents to be fraudulently adjusted and hence the need for separate validation despite the security measures that the College has in place for its e-portfolio information. Downloaded e-portfolio documents such as WpBA's that are not validated with a Consultant signature and hospital stamp cannot be considered as evidence of competence by the College assessors

### ***Who should I ask to be my structured referees?***

You should ask 6 persons who have first hand knowledge of your work / training /experience to be your referees. It is preferable that you have worked with them within the last 5 years. One of the referees should be your current Medical / Clinical Director. The GMC place emphasis in the instructions to referees that they must have “direct knowledge of the applicant’s work or training”. There is little point therefore in asking someone whom you may have met briefly at a conference to be a referee or someone whom you knew many years ago and has since retired. Please inform the referees in advance that you have asked the GMC to contact them to provide a reference. Please also ask them to type rather than write by hand the information into the report! The structured report asks the referee to provide information on the applicants experience and ability from direct observation but does not ask them to compare this to the OST curriculum; this is the role of the College evaluation. The structured report is based on the four domains of GMP.

Structured reports provide important evidence in all four domains of GMP but in particular are relied upon for domains 2 to 4. It is therefore very important that you choose referees who can provide the necessary evidence to support your application.

### ***My training has not included a great deal of audit. Does this matter?***

A very important part of UK training includes clinical governance activities and in particular audit. The College document “Guide to the Delivery of OST” (Version 2.2, February 2009) has the following statement regarding audit: “Regular audit should take place. As with any audit programme, there should be evidence that conclusions from audit sessions have been properly documented and acted upon”. There is also a requirement for an up-to-date cataract audit of at least 50 consecutive cases. Complication rates should be compared with the Cataract National Dataset (published in Eye 2009). Evidence of audit is therefore very important.

### ***What if I have had a career in academic ophthalmology?***

CESR (Academic or Research Medicine) relates to obtaining a CESR having followed an academic career. It would be expected that a successful applicant would hold a relevant postgraduate degree (e.g. research MD or PhD) and have a track record of being an independent and fully trained research worker with publications in high-impact, peer reviewed journals. In addition a successful applicant would be required to demonstrate the knowledge and skills of a consultant ophthalmologist in the NHS and therefore be able to independently manage emergency patients as part of the “on call” rota and also independently manage patients in a general ophthalmology clinic.

### ***What if I have had a career in a non-CCT specialty outside the UK?***

CESR (non-CCT specialty) relates to candidates in a non-CCT specialty with training and experience outside the UK. Ophthalmology and Medical Ophthalmology are the two recognised CCT specialities that relate to CESR

(CCT specialty). Any applicant with sub-speciality experience that does not relate to these areas should apply through the CESR (non-CCT specialty) route. It should be remembered however that in addition to the sub-specialty experience the successful applicant would be required to demonstrate the knowledge and skills of a consultant ophthalmologist in the NHS and therefore be able to independently manage emergency patients as part of the “on call” rota and also independently manage patients in a general ophthalmology clinic.

***I am an SAS doctor in the UK – what help can I receive to obtain further experience and training for my CESR application?***

If you work in a large unit it is possible that the whole range of ophthalmic specialties are covered within the unit. It is important to make your requirements known as soon as possible both informally and formally at annual appraisal as it may be possible that all “top up” training needs can be covered in your present hospital.

If you work in a smaller unit it may still be possible to obtain training within your region. The College Regional Advisers have recently been given a role in assisting doctors considering a CESR application. They may be able to liaise with College Tutors in the region about local training opportunities available to you.

If you require a substantial amount of extra training then it may be advisable to apply for LAT posts but again you need to target the training available in these posts to your specific requirements.

***I am UK based and have a College e-portfolio. The GMC requires that all documentation is downloaded and validated in paper format. What happens if I have moved to a different hospital or my original WpBA assessor has retired?***

The GMC has stated that provided your current Consultant has viewed the documentation directly from your e-portfolio confirming that the downloaded paper documents are identical to the e-documents, he or she can then validate these documents with a signature and hospital stamp.

***Can I apply for a Consultant post whilst preparing for my CESR (CCT specialty- Ophthalmology) application?***

The College recommends to the Advisory Appointments Committee that candidates have to be on the Specialist Register to be eligible to apply for fixed term, substantive or honorary Consultant posts. This does not apply to locum Consultant posts with appointment being at the discretion of the employing authority. The only flexibility relates to CCT candidates who can apply for fixed term, substantive or honorary Consultant posts within 6 months of their proposed CCT date. Such flexibility is not available to CESR candidates who must have obtained their CESR and be on the Specialist Register before applying for fixed term, substantive or honorary posts.

***What happens if I am successful?***

If the GMC conclude that your application is equivalent to that of someone about to obtain CCT then they will award you a Certificate of Eligibility for



Specialist Registration (CESR). This will enable you to apply to be placed on the Specialist Register. Only persons on the Specialist Register are able to apply for fixed term, substantive or honorary Consultant appointments in the UK. The route to the Specialist Register (CCT or CESR) is not specified when on the Specialist Register.

### ***What are the common reasons for being unsuccessful?***

Lack of attention to detail is the most common reason for not being successful. An excellent application can fail due to omission of a single piece of evidence. This single piece of evidence cannot be submitted during the College evaluation process and can only be submitted following a reapplication or review (see below). This can prove expensive and hence the importance of getting it right first time around. It is important to ensure that all subspecialty areas are “current and maintained” and if all evidence in certain subspecialty areas related to training or experience many years ago then the applicant is unlikely to succeed.

### ***What are the common areas of omission in failed applications?***

Common omission of evidence include lack of neuro-ophthalmology, uveitis and B-scan ultrasound experience, ROP screening, assistance at corneal grafts and child protection issues. It is important that all areas of the OST curriculum (or BST/HST curricula if evidence is submitted in this way) are covered. More detailed information about areas where evidence is missing is given in the College “2011 update for CESR applicants for CCT speciality – Ophthalmology” document to be found on the College web-site.

### ***What can I do if I am unsuccessful?***

A decision letter will be sent stating lack of success but also informing the applicant of further training and or experience required to reach the CCT standard as stated in the evaluation document. The applicant then has the following options, re-submission, review or appeal.

A re-submission is a new application with new evidence following further training and or experience as requested in the GMC decision letter and evaluation document. A reduced fee for a re-submission occurs if it is within 3 years of the original application.

A review is a request to the GMC to reconsider its decision and has to be within 3 months of the decision letter. A review can be requested if further evidence (not previously submitted) is now available and the applicant is of the opinion that this extra evidence is sufficient to fulfil the CCT standard. The review process involves the original College evaluators being given the new evidence, producing a recommendation and submitting this to the GMC for a final decision. It incurs a further fee.

An appeal has to be made within 3 months of the decision letter or review outcome letter. It is independent of the GMC and can be an oral hearing or written submission. It incurs a further fee.

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## Appendix 1

A detailed list of the four domains including suggested documentation to support the application:

### Domain 1 – Knowledge, Skills and Performance

#### **Qualifications**

- Primary medical qualification
- Specialist medical qualification
- Curriculum / Syllabus (if outside UK)
- Specialist Registration (if outside UK)
- Honours / Prizes

#### **Assessments and Appraisals**

- Appraisals / assessments
- RITA / ARCP / Training assessments
- 360 degree / Multi-source feedback
- Awards / Discretionary points letters
- Participation in Assessment / Appraisal and appointment process

#### **Logbooks / Records of daily clinical practice**

- Logbooks
- Consolidation / Cumulative data sheets / Summary lists
- Medical reports
- Case histories
- Referral letters discussing patient handling
- Patient lists
- Workload Statistics / Annual Caseload Statistics
- Rotas / Timetables / Job plans

#### **Details of posts and duties**

- Employment letters / Contracts of employment
- Job descriptions
- Job plans

#### **Research, publications and presentations**

- Research papers, grants, patent designs
- Publications within speciality field
- Presentations, poster presentations

#### **CPD/CME**

- CPD record certificates
- CPD registration points
- Certificates of attendance at courses, meetings, conferences
- Membership of professional bodies and organisations

#### **Teaching and Training**

- Teaching timetables
- Lectures
- Feedback / Evaluation forms from those taught
- Letters from Colleagues
- Attendance at teaching / appraisal courses
- Participation in Assessment / Appraisal and Appointment process

### Domain 2 – Safety and Quality

#### **Participation in audit, service improvement**

Audits written by applicant  
Service improvement meetings  
Clinical governance meetings

***Probity and health***

Statement of probity and health

**Domain 3 – Communication, Partnership and Teamwork**

**Participation in directorate and management meetings**

Attendance at multidisciplinary meetings

Letters from Colleague

***Leadership***

Chairing meetings / leading projects

**Domain 4 – Maintaining Trust**

***Acting with Honesty and Integrity***

Equality and Human Rights

Data protection

***Relationship with patients***

Testimonials / letters from colleagues

Thank you letters / cards from colleagues / patients

Complaints and response to complaints

## Appendix 2

Guide to the Delivery of OST (Section 6.13) (Version 2.2, February 2009) of the College document:

“By the end of year 7 the trainee will typically have completed approximately 350 phacoemulsification cataract procedures and have experienced the full range of clinical situations (e.g. white cataract, small pupil) and become competent in managing complications.”

“The trainee should also have performed and/or assisted at sufficient numbers of surgical cases in the other surgical sub-speciality areas (oculoplastic, cornea, glaucoma, retina, paediatric and squint). Typically a trainee should have the following surgical experience by the end of OST.”

40 oculoplastic procedures (excluding ptosis)

Assisted at 3 ptosis procedures

20 squint procedures

Assisted at 6 corneal transplants

Performed 30 procedures for glaucoma (including laser)

Assisted at 20 retinal / vitreoretinal procedures

Performed 40 retinal laser procedures

## **Appendix 3**

Summary of the essential mandatory competencies and clinical experience required in the HST / BST curricula:

### **1. Oculoplastic Adnexal and Lacrimal surgery**

- 20 oculoplastic / adnexal clinics (attended)
- 40 oculoplastic operations (performed)
- 3 ptosis repairs (assisted)
- 10 special radiographs associated with the speciality (interpreted)
- 5 patients with thyroid eye disease (managed)

### **2. Corneal and external disease**

- 20 corneal / external eye disease clinics (attended)
- 6 corneal transplant operations (assisted)
- Managed complications of corneal transplantation

### **3. Cataract and refractive surgery**

- 350 complete cataract operations (performed)
- Personal audit of at least 50 consecutive cataract operations

### **4. Glaucoma**

- 20 glaucoma clinics (attended)
- 30 procedures for glaucoma (surgical or laser, performed)

### **5. Retina, Vitreous and Uvea (including ocular oncology)**

- 40 subspeciality retinal clinics (attended, 20 surgical, 20 medical)
- 40 posterior segment laser treatments (performed)
- 20 retinal operations (assisted)
- 10 uveitis treatments with cytotoxic or immunosuppressive agents (involved in the management)
- 20 Bscan ultrasounds of posterior segment disease (performed)
- 1 day with social worker for visually impaired

### **6. Neuro-ophthalmology**

- 20 neuro-ophthalmology clinics (attended) or having been exposed to an equivalent number of patients

### **7. Paediatric ophthalmology and strabismus**

- 20 paediatric ophthalmology clinics (attended)
- 20 extraocular muscle surgery (performed)
- 10 ROP screening (performed)

## **Appendix 4**

Suggested mapping of learning outcomes in relation to the seven sub-speciality areas:

### **1. Oculoplastic, adnexal and lacrimal surgery**

SS6 (perform surgical repair of ocular and adnexal tissues after trauma)  
SS7 (undertake the surgical management of lid problems). Procedures should include correction of simple entropion and ectropion, pentagon excision of lid margin lesions, and upper lid blepharoplasty.  
SS9 (perform lateral canthotomy and cantholysis)  
SS10 (perform biopsy of ocular and adnexal tissues)  
SS11 (biopsy the temporal artery)  
SS13 (remove the eye when indicated)  
PS8 (assess lacrimal function)  
PS12 (occlude the nasolacrimal puncta)  
PS13 (remove sutures from eye and adnexae)  
PS15 (administer periocular botulinum injections)  
PI6 (radiology and other neuro-imaging)

### **2. Cornea and external diseases**

HPDP6 (provide advice on contact lens care)  
SS6 (perform surgical repair of ocular and adnexal tissues after trauma)  
SS8 (undertake surgical measures for the protection of the ocular surface)  
PS9 (perform anterior chamber paracentesis)  
PS10 (perform a corneal scrape)  
PS11 (remove ocular surface foreign body)  
PS13 (remove sutures from eye and adnexae)  
PS14 (fit a bandage contact lens)  
PS16 (apply corneal glue)  
PS18 (demonstrate lid hygiene to a patient)  
PS22 (carry out irrigation and debridement of ocular contaminants)  
PS23 (prepare a biopsy sample for subsequent histopathological and microbiological assessment)  
PM15 (to use contact lenses when indicated)

### **3. Cataract and refractive surgery**

HPDP 12 (follow local and national guidance with regard to prophylaxis)  
SS4 (cataract surgery). No specific number of operations is required by applicants but the College advises an indicative minimum number of 50 during the first 2 years of training and 350 during the 7 years of training with a full case mix of complex cases.  
A continuous audit should also be performed (see section on audit)  
SS14 (apply appropriate laser for the management of the lens capsule)  
PS2 (perform a refractive assessment and provide an optical prescription - adult)  
PM14 (to use spectacle lenses and prisms when indicated)  
PM16 (to advise on the benefits and limitations of refractive surgery)  
  
PM17 (to select patients for laser treatment when indicated)

PI2 (assessment of corneal shape, structure and thickness)  
PI12 (biometry)

#### **4. Glaucoma**

HPDP7 (take appropriate care of laser and diagnostic contact lens)  
SS5 (surgical measures to lower IOP)  
SS15 (apply appropriate laser for the management of raised intraocular pressure)  
PM10 (to interpret and apply visual standards for driving and occupational visual standards)  
PM11 (to refer patients, where appropriate, for provision of low vision aids and rehabilitation services for the visually impaired, and interpret and apply the criteria for registration with visual impairment)  
PM17 (to select patients for laser treatment when indicated)  
PI2 (assessment of corneal shape, structure and thickness)  
PI3 (retinal and optic nerve imaging techniques)  
PI13 (fields, automated, manual)  
CA8 (measure intraocular pressure using applanation tonometry)

#### **5. Retina, vitreous and uvea (including ocular oncology)**

HPDP1 (promote the value and assist in organisation of screening for eye disease – diabetes)  
BCS12 (lasers)  
HPDP7 (take appropriate care of laser and diagnostic contact lens)  
HPDP10 (understand the implications of investigations and therapeutics during pregnancy)  
HPDP 11 (make recommendations for bone protection)  
PI16 (bone scans)  
SS10 (perform biopsy of ocular and adnexal tissues)  
SS16 (apply appropriate laser for the management of retinal problems)  
PS3 (administer periocular and intraocular drugs)  
PS7 (use cryotherapy appropriately and safely)  
PS17 (perform ocular ultrasound)  
PS 19 (perform anterior chamber and vitreous sampling)  
PM3 (prescribe and administer appropriate local and systemic therapy – including intravitreal)  
PM10 (to interpret and apply visual standards for driving and occupational visual standards)  
PM11 (to refer patients, where appropriate, for provision of low vision aids and rehabilitation services for the visually impaired, and interpret and apply the criteria for registration with visual impairment)  
PM17 (to select patients for laser treatment when indicated)  
PM18 (to understand and promote the importance of diet and nutrition in ophthalmic disease)  
PI3 (retinal and optic nerve imaging techniques)  
PI4 (ocular angiography)  
PI5 (ultrasonography)

PI7 (ocular and neuro-electrophysiology)  
CA4 (demonstrate and teach the appropriate use of Amsler chart to patients)  
CA10 (examine the fundus using appropriate techniques)

## **6. Neuro-ophthalmology**

SS11 (biopsy the temporal artery)  
PM10 (to interpret and apply visual standards for driving and occupational visual standards)  
PI6 (radiology and other neuro-imaging)  
PI7 (ocular and neuro-electrophysiology)  
PI13 (fields, automated, manual)  
CA3 (assessment and interpretation of visual fields by confrontation)  
CA6 (examination of the pupils and perform diagnostic pharmacological tests)  
CA13 (perform a directed neurological examination taking into account the associations between systemic and ophthalmic diseases)

## **7. Paediatric ophthalmology and strabismus**

HS 6 (Children and others with special needs)  
AER15 (Understands the responsibilities of an ophthalmologist in child protection)  
BCS16 (genetics)  
HPDP1 (promote the value and assist in organisation of screening for eye disease – ROP and community vision screening in children)  
SS12 (perform surgery on the extraocular muscles)  
PS2 (perform a refractive assessment and provide an optical prescription – child)  
PS24 (perform forced duction tests)  
PM11 (to refer patients, where appropriate, for provision of low vision aids and rehabilitation services for the visually impaired, and interpret and apply the criteria for registration with visual impairment – in children)  
PM14 (to use spectacle lenses and prisms when indicated)  
PI1 (orthoptic assessment)  
CA7 (perform a cover test and assess ocular motility)  
CA12 (perform a basic paediatric and developmental examination taking into account the associations between systemic and ophthalmic diseases)

## **Appendix 5**

A suggested mapping of the learning outcomes of the OST curriculum relating to the FRCOphth examination:

BCS1 (anatomy) – Part 1 FRCOphth (or equivalent) syllabus  
BCS2 (physiology) – Part 1 FRCOphth (or equivalent) syllabus  
BCS3 (biochemistry and cell biology) – Part 1 FRCOphth (or equivalent) syllabus  
BCS4 (pathology) – Part 1 FRCOphth (or equivalent) syllabus  
BCS5 (growth and senescence) – Part 1 FRCOphth (or equivalent) syllabus  
BCS6 (optics) – Part 1 FRCOphth (or equivalent) syllabus  
BCS7 (clinical ophthalmology) – Part 2 FRCOphth (or equivalent) syllabus, CbD's (case based discussions).  
BCS8 (therapeutics) – Part 1 and Part 2 FRCOphth (or equivalent) syllabus, CbD's  
BCS9 (general medicine and surgery) – Part 1 and Part 2 FRCOphth (or equivalent) syllabus, CbD's



BCS10 (clinical psychology) – Part 2 FRCOphth (or equivalent) syllabus, CbD's

BCS11 (sociology) – Part 2 FRCOphth (or equivalent) syllabus, CbD's

BCSC12 (lasers) – Part 1 and Part 2 FRCOphth (or equivalent) syllabus, CbD's, trust laser safety assessments

BCS13 (clinical epidemiology and EBM) – Part 2 FRCOphth (or equivalent) syllabus, CbD's, journal clubs

BCS14 (instrument technology) – Part 1 and part 2 FRCOphth (or equivalent) syllabus

BCS15 (biostatistics) – Part 1 and Part 2 FRCOphth (or equivalent) syllabus

BCS16 (genetics) – Part 1 and Part 2 FRCOphth (or equivalent) syllabus, CbD's

BCS 17 (health economics) – Part 2 FRCOphth (or equivalent) syllabus, CbD's