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Curriculum

Specialist Training in Basic Surgical Ophthalmology (BST)

Revision Level	Revision Date	Description of Revision	Document Owner/Author
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Abbreviations

A/E= Accident and Emergency
AAO= American Academy of Ophthalmology
ACG= Angle Closure Glaucoma
AGIS= Advanced Glaucoma Intervention Study
ARMD= Age-Related Macular Degeneration
ARVO= Association of Research and Vision in Ophthalmology
BST= Basic Surgical Training
BRVO= Branch Retinal Vein Occlusion
CAPA= Competence, Assessment & Performance Appraisal
CBD= Case Based Discussion
CCBST= Certificate of Completion of Basic Surgical Training
CCST= Certificate of Completion of Specialist Training
CITGS= Collaborative Initial Treatment of Glaucoma Study
CNTGS= Collaborative Normal Tension Glaucoma Study Group
CRVO= Central Retinal Vein Occlusion
CSR= Central Serous Retinopathy
DME= Diabetic Maculopathy
DOPS= Direct Observational Procedural Skills
DR= Diabetic Retinopathy
EAGLE= Effectiveness in Angle-Closure Glaucoma of Lens Extraction
EBOD= European Board of Ophthalmologists Diploma
EMGT= Early Manifest Glaucoma Trial
EOM= Ocular Motility
EURETINA= European Society of Retina Specialists
FAF= Fundus Autofluorescence Imaging
FFA= Fundus Fluorescein Angiography
FRCOphth= Fellowship of the Royal College of Ophthalmologists
HF= Human Factors
HST= Higher Surgical Training
I+C= Incision & Curettage
ICG= Indocyanine Green Angiography
ICO= Irish College of Ophthalmologists
IVTx= Intra-vitreal injection
JCA= Juvenile Chronic Arthritis
JCST= Joint Committee on Surgical Training
MDT= Multi-Disciplinary Team
Mini-CEX= Clinical Evaluation Exercise
MK= Microbial Keratitis
MMI= Multiple Mini Interview
MRCSI= Membership of the Royal College of Surgeons in Ireland
NPGTP= National Postgraduate Teaching Programme
NTG= Normal Tension Glaucoma
NYGS= New York Glaucoma Study
OCT= Optical Coherence Tomography

OCTA= Optical Coherence Tomography Angiography
OHTS= Ocular Hypertension
OSCE= Objective Structured Clinical Examination
PAC= Primary Angle-Closure
PDT= Photodynamic Therapy
PI= Laser Peripheral Iridotomy
POAG= Primary Open Angle Glaucoma
PRP= Pan-Retinal Photocoagulation
PVD= Posterior Vitreous Detachment
PXF= Pseudo-Exfoliative Glaucoma
RAC= Rapid Access Clinic
RCOphth= Royal College of Ophthalmologists
RCSI= Royal College of Surgeons in Ireland
RCTs= Randomised Controlled Trials
ROP= Retinopathy of Prematurity
RSTA= Research, Study, Teaching and Audit session
RVEEH= Royal Victoria Eye & Ear Hospital
SFS= School for Surgeons
SITA= Swedish Interactive Threshold Algorithm
SLT= Selective Laser Trabeculoplasty
SOE= Structured Oral Examination
SSAOP= Supervised Structured Assessment of Operative Performance
VF= Visual Field

Introduction

The Surgical Ophthalmology Curriculum provides the structure for specialist training, culminating in graduation as an independent ophthalmic surgeon with achievement of the Certificate of Completion of Specialist Training (CCST).

This document explains the overall outline of the Basic Surgical Ophthalmology Training Programme ('the Training Programme') the entry and exit criteria, the stages of training and the format of clinical rotations across clinical sites.

The second part details the basic syllabus and Human Factors in Patient Safety Programme (HF) which lay down the standards of speciality based knowledge, clinical judgement, technical and procedural skills as well as professional skills and behaviour, which must be attained at each stage of training. The basic syllabus details the standards and content of the first three years. The specialty-specific syllabus for Higher Surgical Ophthalmology Training details the specific requirements to practice as an independent surgical ophthalmologist in Ireland and is available on the ICO website here:
Higher Surgical Training in Ophthalmology Curriculum

The second part also describes the educational framework of the Curriculum and how it delivers the content of the syllabus via its teaching and learning programmes, both at national as well as local level. The assessment system highlights the performance standards and assessment tools that are employed to ensure that defined competences are acquired at each stage of the training journey.

The third part details the evaluation of the curriculum and processes in place to quality assure both the training and the programme itself.

The Irish College of Ophthalmologists (ICO) is responsible for the delivery of the National Basic Surgical Ophthalmology Training Programme. The responsibility for designing the curriculum and setting the curriculum standards rests with the Training Standards & Regulations Committee of the ICO. Selection criteria have been developed by the ICO for entry onto the Training Programme and are available on the ICO website. Those who are selected onto the Training Programme must acquire recognized competences in terms of index procedures, workplace based assessments (WBAs) and satisfactory 6-monthly Competence, Assessment & Performance Appraisal (CAPA) appraisals as well as succeed in the MRCSI examinations, in order to successfully exit the programme and obtain their Certificate Completion of Basic Surgical Training (CCBST).

Educational Principles of the Curriculum

The purpose of the curriculum is to produce surgeons with the capability to deliver an excellent standard of ophthalmic surgical practice and provide this practice in a safe and professional manner and to the highest of international standards.

The curriculum is founded on the following principles:

- The curriculum is a hybrid model of both competency and time based surgical education, which is moving form a strictly time-based model to an outcome-based approach, organised around competencies.

- Regulation of progression through the training programme is by the achievement of outcomes that are specified within the curriculum. These outcomes are competence-based rather than time-based.

- The curriculum is mapped to the eight domains of good professional practice as outlined by the Medical Council to ensure, that medical ophthalmologists, completing the training programme are more than just technical experts.

- There is systematic progression from year 1 (BST1) through to year 3 (BST3) followed by competitive entry into higher training in surgical ophthalmology (HST4- HST7).

- Delivery of the curriculum is by ophthalmic surgeons who are appropriately qualified to deliver ophthalmic specialist training.

- The assessment process is underpinned by explicit performance standards to ensure that the levels of competence outlined in the curriculum are attained.

- National Training Units are the main setting for teaching, learning and assessment.

- ICO encourages diversity across the areas of age, disability, gender, religion, sexual orientation and ethnic national or racial origins, both within the training programme and within the workplace.

Curricular Design, Competency Points and Progression through the Training Pathway

Curricular Design and progression through the Training Pathway

The curriculum follows a hybrid competency and time based model. It focuses on the trainee's ability to demonstrate the knowledge, skills and professional behaviours that they have acquired in their training (specified in the syllabus) through observable behaviours. As a hybrid model, it is not solely defined by time and accordingly, it enables these competences to be acquired in different time frames reflecting variables such as structure of the programme at local level, rotation sub-specialty and the ability of the trainee.

However, there are certain milestones or competence points which enable trainees to benchmark their progress against the standards set down in the curriculum, as well as assist in directing trainees towards future career choices based on preference and ability. These milestones also allow assessors to determine if trainees are adequately achieving competence along their training path and therefore quality assure the training programme itself.

Competency points

- Entry into Basic Training in Surgical Ophthalmology (BST).
- Six-monthly CAPA appraisals during BST 1, BST 2 and BST 3.
- Completion of 3 years of BST, achievement of required competencies and award of CCBST.
- Entry into Higher Training in Surgical Ophthalmology (HST) via competitive cumulative scorecard performance and interview.
- Successful passing of the FRCSI (Ophth) Examination
- Exit with CCST.

PART 1: Stages of Training

Stages of Training

A. **Framework of BST1 – BST3**
   Training Units, BST Timetables & Surgical Rotations
B. **Generic Modules:**
   Human Factors in Patient Safety & School for Surgeons
C. **Competency Points:**
   Examinations, Assessments & Appraisals
D. **Progression through BST:**
   Training Progression, remediation, leave during BST
E. **Award of the Certificate of Completion of Basic Surgical Ophthalmology Training (CCBST)**
F. **Framework of Higher Training in Surgical Ophthalmology**

A. Framework of Basic Training in Surgical Ophthalmology for Years 1-3 (BST1, BST2 & BST3).

Training in Surgical Ophthalmology BST1, BST2 & BST3

The aim of the first three years of training in surgical ophthalmology is to deliver a broad based initial training with acquirement of knowledge, skills and professional behaviours relevant to the practice of surgical ophthalmology. The first three years of training are defined as BST1, BST2 and BST3. Competences that are common to all ophthalmic subspecialties are defined as **basic competences**. Training in the first three years centres on the acquirement of these basic competences. These competences are detailed in the Basic Syllabus (Appendix A). Parallel to acquiring clinical competences, the College recognises the importance of identifying and acquiring generic competences in professionalism and patient safety. The Human Factors in Patient Safety programme (HF) is delivered in BST 1 and BST2 (Appendix B).

Entry into Training in Surgical Ophthalmology BST1

Entry to the Training Programme will be by competitive interview held centrally at the ICO. Eligibility criteria and scorecard are available on the ICO website.

Training Units for BST1, BST2 & BST3

Eleven training units are nationally recognised by the ICO for training. They are:

1. Beaumont University Hospital
2. Children's University Hospital Temple Street
3. Cork University Hospital
4. Galway University Hospital
5. Limerick University Hospital
6. Mater University Hospital
7. Our Lady's University Hospital Crumlin
8. Royal Victoria Eye & Ear Hospital
9. Sligo University Hospital
10. St. Vincent's University Hospital
11. Waterford University Hospital

Each training unit must:

- Appoint an Educational Supervisor.
- Assign a designated Consultant Trainer to each Trainee, who meets with them, at the beginning of each six-month rotation and agrees a personal development plan stating achievable clinical or procedural goals for that six months.
- Ensure that the Unit's standards of training are in keeping with the Quality Indicators for BST1-3 (see Appendix I).
- Ensure the weekly timetable is in keeping with the recommended ICO guidelines for basic training: One RSTA session, at least 2 theatre sessions, at least two consultant-

led specialty clinics, at least one consultant-led general clinic, a maximum of 2 EED sessions, a maximum of one injection list. They should have a dedicated 'minor ops' and laser list under appropriate supervision (Consultant or HST) at least alternate weeks. First on-call activities in keeping with European Working Time Directive (EWTD), with access to a second-on-call senior colleague. (See sample timetable below).

- Deliver 2 hours per week of in-house teaching, including a monthly journal club, in keeping with the syllabus content. Trainees are obliged to attend 60% of teaching.
- Organise and deliver a 4-monthly audit session with supervision of clinical and quality improvement audit.
- Organise workplace training in terms of appropriate 1:1 supervision and guidance as well as appropriate case mix and case load.
- Identify and provide relevant teaching and learning and relevant clinical and procedural opportunities to support trainees development (particularly in relation to readiness for summative assessment), at each particular stage of progress.
- Inform workplace-based assessments (WBAs) to provide evidence of what trainees know and can do. This must be carried out in keeping with the basic competencies outlined in the curriculum (4 WBAs to be carried out during every 6 month rotation).
- Remediable and identifiable gaps in a trainee's basic competences may arise which may be due to variables such as structure of an individual training unit programme, rotation sub-specialty and/or ability of the trainee. The unit must ensure that these are dealt with expeditiously through local personal development plans with the Educational Supervisor, the Consultant Trainer and the trainee.
- Provide a dedicated teaching area with library facilities, internet access, photocopying facilities, audio-visual aids, digital projection and video-conferencing facilities.

Sample timetable for basic foundation years BST1, BST2 and BST3

Monday	Tuesday	Wednesday	Thursday	Friday
In-house teaching		*In-house Journal Club*		
AM				
Theatre	Clinic	Clinic (specialist)	Minor ops / Laser	Clinic
PM				
Casualty	Theatre	Casualty	Clinic	RSTA
			*NPGT***	

** NGTP is the monthly RVEEH National Postgraduate Teaching sessions which are video-conferenced to all units nationally.

Clinical Rotations for BST1, BST2 & BST3

All recognised posts for BST are located in the eleven teaching units. Specific post allocations are determined for each trainee by the ICO. Trainees rotate through at least two training units and on average, spend 3 six-month rotations in one training unit and a further 3 six-month rotations in another department during the initial 3 years of their training so that they rotate through a minimum of two eye departments.

B. Generic Module

Human Factors in Patient Safety & Objective Structured Clinical Examination

The Human Factors in Patient Safety programme is a mandatory component of ophthalmology training for BSTs. The programme is delivered by the Royal College of Surgeons in Ireland (RCSI). Details on dates of each module, which is repeated a number of times, are circulated in advance.

Trainees must attend 5 modules during their first two years of BST. See section B.3 for further details.

An Objective Structured Clinical Examination (OSCE) is mandatory component of the Human Factors programme in BST Yr 1 & 2. This OSCE must be passed in order to progress through basic training. Performance in the HF OSCEs also contributes to the scorecard to enter HST.

School for Surgeons & Interactive Classroom

School for Surgeons (SFS) and the Interactive Classroom (IC) are the online learning components of the training programme. The course content of SFS is a combination of case presentations, review of relevant Journal articles (Journal Watch), audio-video presentations of clinical and surgical content and end of term MCQs. Cases are presented which are relevant to Ophthalmic Specialist Trainees and are based on the syllabus, the case-mix encountered in the clinic as well as the MRCSI (Ophth) Examination.

Assignments are completed on SFS and feedback sessions based on these assignments are facilitated through the IC. Each assignment is graded and Trainees are expected in each six-month rotation, to score a minimum of 60% of assignments and a minimum score of 60% of ICs to be attended. Participation on SFS assignments, IC feedback sessions and the end of term MCQ are mandatory components of the BST programme and contribute to the HST entry scorecard.

C. Competency Points

Exams and assessments during BST1, BST2 & BST3

In order to progress through BST certain milestones must be achieved as the trainee proceeds along their training pathway.

Fellowship Royal College of Ophthalmologists Part 1

The FRCOphth Part 1 examination is hosted by the Royal College of Ophthalmologists (RCOphth) in the UK. The exam assesses an applicant's understanding of patient investigations and knowledge of basic and clinical sciences relevant to ophthalmology.
Trainees must pass the FRCOphth Part 1 exam in order to be eligible to sit the MRCSI (Ophth) Part 2 exam.

Membership of the Royal College of Surgeons in Ireland (Ophthalmology)

The membership of the Royal College of Surgeons in Ireland (Ophthalmology) or MRCSI (Ophth) is comprised of three components: The MRCSI (Ophth) Part 1, the Clinical Optics and Refraction examination **or** the FRCOphth Refraction Certificate examination) and the Part 2 written & clinical examination. All three components must be passed in order to successfully complete BST. Performance in the MRCSI (Ophth) Part 2 written & clinical examination contributes to the scorecard to enter HST.

D. Progression in BST

Competence, Assessment & Performance Appraisal

The CAPA is an evaluation tool which is designed to assess the progress of trainees. The CAPA scrutinises each trainee's suitability to progress to the next stage of, or complete, the basic training programme by providing a coherent record of a trainee's progress across multiple areas (clinical skills, procedural skills, work-place based assessments, School for Surgeons online assignments, Human Factors in Patient Safety, audit & examinations).

The CAPA takes place on a 6-monthly basis for all trainees. Trainee submitted assessment forms provide the evidence of progress. It is the trainee's responsibility to ensure that the documentary evidence is completed in adequate time for the CAPA.

Remediation during BST

A programme of remediation will be offered during BST.

The Dean of Postgraduate Education will monitor trainees' progress and provide remediation where necessary in order to support individual trainees to successfully complete their training.

Leave during training rotations in BST

Any period of unplanned leave, beyond the normal entitlement to study and annual leave, may interrupt the acquirement of skills during each 6 month rotation. Therefore, a period of unplanned leave in excess of 2 weeks per 6 months, may require a further period of training to be undertaken.

Please refer to the BST Trainee Guide for further details on leave.

Completion of Basic Surgical Ophthalmology Programme

BST is a 3 year programme. The programme must be completed within 5 calendar years of the trainee's start date. This is to ensure that the defined milestones of the programme are acquired at an intensity of training, which optimises the achievement and retention of the programme's learning outcomes.

E. Award of the Certificate of Completion of Basic Surgical Ophthalmology Training (Appendix F)

On successful completion of BST training, trainees are issued with CCBST. The criteria for eligibility for the CCBST are as follows:

1. Successful completion of BST1, BST2 and BST3 with satisfactory CAPA appraisals for each 6 months.
2. Satisfactory achievement of all WBAs at each competency point.
3. Successful award of the MRCSI.
4. Successful completion of the Human Factors in Patient Safety programme and Human Factors OSCEs.
5. Successful completion of School for Surgeons assignments & Interactive Classroom attendance.
6. Validated procedural logbook to include minimum numbers*
7. Audit as per the BST curriculum (minimum of 4 audits).
8. Documented attendance at obligatory ICO courses & study days.

* Minimum numbers:

   a. 150 intravitreal injections
   b. 30 panretinal lasers and 5 macular lasers.
   c. 20 YAG capsulotomy lasers, 5 YAG laser PIs
   d. 60 minor procedures (S+P, I+C, lesion excision and biopsy etc)
   e. Refraction x 60 cases (Adult (30) and Paediatric (30))

F. Framework of Higher Training in Surgical Ophthalmology

Please refer to the HST curriculum which is available here: HST Curriculum.

Entry into Higher Training in Surgical Ophthalmology

Trainees who are nearing the completion of BST and who have met the minimum criteria can compete to enter HST.

Success in the selection process for the HST training programme is determined by a combination of a cumulative scorecard (accrued during BST years 1 – 3) and a multi-station interview held centrally. The selection process is competitive. Candidates will have two opportunities to compete to enter HST.

Marking Scheme for Entry to HST

The components which are scored for competitive entry into HST are listed in Appendix H.
An offer for a post on the HST programme is contingent on a trainee being awarded their CCBST.

PART 2: Components of the Basic Curriculum

Components of the Curriculum

A: The Syllabi
B: Delivery of the Curriculum and the Educational Framework
C: Assessment and Feedback

The curriculum has been designed around three broad areas:

A: The Syllabi

- **The Basic Syllabus – identifies** learning outcomes for the domains of knowledge, clinical and technical skills for each stage of training of the basic years BST1, BST2 and BST3.
- **Human Factors in Patient Safety programme** identifies learning outcomes for professional behaviour and leadership skills for each stage of training.

B. Delivery of the Curriculum

- **Delivery of the curriculum – The Educational Framework: The Teaching and Learning Programme** how the content of the curriculum is communicated and delivered by the ICO to the individual training units to the trainees, including the methods by which trainees are supervised.

C. Assessment and Feedback

- **Assessment–**The standards of training and how the attainment of outcomes is measured / judged to confirm competence.

A: The Syllabi

There are two syllabi that constitute the main content of the Surgical Ophthalmology Curriculum. Each syllabus details the learning content and outcomes to be achieved at each stage of training.

A1. Basic Syllabus
A2. Human Factors Syllabus

A1. Basic Syllabus

The Basic Syllabus BST1 – BST3: Appendix A

The Basic Syllabus is structured to give a general foundation across all disciplines for the first three years. It reflects the early years of ophthalmic training and the need for trainees to gain competence in a range of knowledge and skills many of which will not be specialty-specific.

The syllabus makes it explicitly clear what trainees need to know, when they need to know it and how well they need to know it. See Appendix A.

A2. Human Factors in Patient Safety Syllabus

The Human Factors in Patient Safety Syllabus: Appendix B

The Human Factors is a programme of personal skills for clinical and surgical training which has been developed by the Royal College of Surgeons in Ireland. It aims to give trainees the personal skills and attitudes necessary for modern clinical practice as well as successful working in a multidisciplinary team. See Appendix B.

B. Delivery of the Curriculum

The Educational Framework: The Teaching and Learning Programme

The Teaching and Learning Programme is the structured education component of the Curriculum and is delivered by accredited Consultant Trainers in National Training Units, and the Irish College of Ophthalmologists. Full participation in this programme is mandatory for all Trainees. The structured education component goes hand in hand with work-place training, enhancing the knowledge and skills acquired through clinical training posts.

The Educational Framework: The Teaching and Learning Education Programme has five components:

B1. Knowledge
B2. Technical, Clinical and Procedural skills
B3. Professionalism and Human Factors

B1. Knowledge

The basic knowledge section of the Curriculum is delivered through a structured blended teaching and learning education programme with local, national and e-learning components.

Clinical Supervision

Clinical knowledge and experience gained from direct patient care on the ward, out-patient department and/or theatre and supervised by Consultant Trainer/s in National Training Units, accredited by the ICO.

In-house teaching

A minimum of two hours per week of in-house teaching per week (during the academic year) takes place in each training unit. The content should be broadly based on the syllabus and should include case presentations, journal club, didactic lectures and audit. Each Consultant Trainer in the unit is expected to participate in the teaching and such participation by Trainers as well as attendance by trainees should be documented by the Unit's Educational Supervisor. It is obligatory for trainees to attend a minimum of 60% of postgraduate in-house teaching.

The National Postgraduate Teaching Programme

The NPGTP includes monthly case presentations and lectures given by national and international invited speakers, with each subspecialty being represented at least once in the academic year. The programme is run by the Royal Victoria Eye and Ear Hospital from September to June of each academic year. The programme is live streamed. It is obligatory for trainees to attend a minimum of 60% of the National Ophthalmic Postgraduate Teaching Programme.

Irish College of Ophthalmologists Courses / Study Days (Appendix E)

The ICO delivers a number of academic courses throughout the year. Each trainee must attend at least one course per year during their training and must have attended all obligatory courses in order to must attend the strabismus course and present at it.

Phaco Bootcamp (obligatory)
Microsurgical Skills Course (obligatory)
Annual Strabismus Course (obligatory)
Refraction Course (obligatory)
Phacoemulsification & Anterior Vitrectomy (obligatory)
Anatomy – Online (optional)
Pathology Course (optional)
Ocular Trauma/ Emergency Course (optional)

SCHOOL for Surgeons (SFS): Surgeons/Interactive Classroom

SCHOOL for Surgeons – SFS is the online component of the training programme. Each trainee is issued with a unique logon name and password to access the website. The site is found at https://vle.rcsi.com/login/index.php.

The course content of SFS is a combination of case presentations, review of relevant Journal articles (Journal Watch), audio-video presentations of clinical content and end of term MCQs. Cases are presented which are relevant to trainees and are based on the syllabus, the case-mix encountered in the clinic as well as the MRCSI (Ophth) Examination, the EBOD and the FRCSI.

Journal Watch engages trainees in appraising relevant articles and papers in peer reviewed Journals, all of which are available on the e-Journal Portal. Assignments are given on a regular four-weekly basis and trainees are expected to submit their assignments online by the due date. Feedback is given in the form of text or interactive classrooms after the assignment due date. Each assignment is graded and trainees are expected to score a minimum of 60% in order to pass each 6 month rotation of their training cycle.

National eTutorial Series for Ophthalmolology

The ICO National eTutorial Series was launched in January 2021 as part of the online learning programme. The College hosts weekly subspecialty teaching sessions that are aligned to the learning outcomes of the curriculum. Trainees are strongly encouraged to attend and engage in these sessions.

The sessions run for 10 months, September to June, of the training year. The sessions include a 30 minute presentation followed by a short 10 minute Q&A session. The presentations are recorded and are available for trainees to access via the ICO trainee portal.

B2. Technical, Clinical and Procedural Skills

The skills section of the Curriculum is delivered through a structured blended teaching and learning education programme using simulator and wet-lab facilities as well as didactic teaching methods.

Clinical Supervision

Clinical skills and experience gained from direct patient care on the ward, out-patient department and/or theatre and supervised by Consultant Trainer/s in National Training Units, accredited by the ICO.

Wet-lab based facilities

Wet-lab and dry-lab facilities allow trainees to expand their hands-on technical experience and further progress their development as a procedural and technical expert. A one day dry and

wet-lab microsurgical skills course held at the RCSI is obligatory for all BST1 trainees in the first 6 months of their training.

Refraction Simulator Tutorials

A refraction simulator is used to teach the basic refraction skills. The simulator provides the opportunity to practice the steps of refraction, resulting in a faster and safer transition to live refraction. A one day refraction skills course is held annually and is obligatory for all BST1 trainees.

Irish College of Ophthalmologists Skills Courses (Appendix E)

Throughout the academic year the below courses are delivered by the ICO. Each trainee must attend at least one course per year during their training and must have attended all obligatory courses in order to obtain their CCBST. During HST, trainees are recommended to attend again the Refraction course and Strabismus Course.

Microsurgical Skills Course (obligatory)
Ocular Anaesthetics Course (obligatory)
Refraction Course (obligatory)
Strabismus Course (obligatory)
Phacoemulsification & Anterior Vitrectomy (obligatory)

B3. Professionalism and Human Factors in Patient Safety

Surgical Ophthalmologists must to be able to perform in differing conditions and circumstances, respond to the unpredictable and make decisions under pressure, frequently in the absence of all the desirable data. They use professional judgement, insight and leadership in everyday practice, working within multi-professional teams. Their conduct is guided by professional values and standards as laid down in the eight domains of good professional practice by the Medical Council.

The Human Factors syllabus is mapped to the good professional practice framework and the programme is delivered by acknowledged experts from the RCSI. The programme has a modular approach, and each module has precise learning objectives. The syllabus is arranged so that the modules can be taken in any order and a system of credits will be used to signify satisfactory completion of individual modules. Each module is designed to be delivered over a one day period and it is intended that each trainee will take on average two / three modules per annum. The different modules focus on the areas of leadership and professionalism, interpersonal skills and conflict resolution, crisis management, causes and avoidance of errors, stress management and time management as well as the competencies defined under the 8 domains of good professional practice by the Medical Council.

The training is delivered by a combination of didactic teaching and practical work which will involve role playing and small group discussions. Audio visual support is provided. Trainees are encouraged to find solutions to human factor problems for themselves and they are given

assignments on which to work between modules. There is emphasis on practical application in the work place and the assignments reflect the importance of work place application.

The Modules and their content are listed below. Modules 1-5 are attended during BST and modules 6-9 during HST. A Human Factors OSCE style examination is taken in BST1 & 2. Attendance at each module as well as passing of the OSCE exam is obligatory in order to complete BST3 and compete for HST4 in Surgical Ophthalmology.

Human Factors Modules are:

1. Talking to patients and relatives
2. Professional Interactions
3. Bystander Intervention Training (online webinar)
4. Managing stress
5. Trauma B: Upper Body Trauma
6. Leadership
7. Safety Management Systems
8. 21st Century Professionalism
9. Advanced Communication: Advocacy & Negotiation

C. Assessment and Feedback

C1. Overview of the Assessment System
C2. Defining the Performance Standard
C3: The Assessment Framework

C1: Overview of the Assessment System

Overview

Assessment is the systematic procedure for measuring a trainee's progress or level of achievement, against defined criteria to make a judgement about a trainee. The assessment system refers to an integrated set of assessments which is in place for the entire of the basic and specialist training programme and which is blueprinted against and supports the approved Surgical Ophthalmology Curriculum. Such a system supports a variety of purposes including informing learning and instruction, determining progress, measuring achievement, providing accountability and informing the efficacy of the curriculum itself as to the achievement of specified milestones.

The purpose of the assessment system is to

- Define the performance standard.
- Address the breadth and depth of agreed performance standards across the different domains of the curriculum, not just those that are easy to measure.
- Employ a broad variety of assessment tools or instruments at local, national and international level and incorporate formative as well as summative measures.
- Determine whether trainees have acquired the common and specialty-based knowledge, clinical judgment, procedural and technical skills, and professional behaviour and leadership skills required to practice at the level of an independent surgical ophthalmologist at specialist registration level.
- Provide systematic and comprehensive feedback as part of the learning cycle.
- Address all the eight domains of Good Professional Practice and conform to the principles laid down by the Medical Council.
- Determine whether trainees are meeting the standards of competence and performance specified at various stages in the curriculum so as to quality assure the curriculum itself.

C2: Defining the Performance Standard*

Defining the performance standard is key to the assessment process. The quality of the assessment is dependent on the quality of the performance standard. Performance standards form the basis for the identification and provision of relevant teaching and training opportunities that are needed to support trainees at each particular stage of development. They also inform competence–based assessment to provide evidence of, not only what trainees know, but what they can do.

Standards for Training*
Standards for depth of knowledge

The performance standard for knowledge is based on a 4 stage competence level. Each topic within a stage has a competence level ascribed to it, ranging from 1 to 4, which indicates the depth of knowledge required.

1. Knows of
2. Knows basic concepts
3. Knows generally
4. Knows specifically and broadly

In the early basic years of training, the appropriate depth and level of knowledge required can be found in exemplar texts tabulated below (level 2-3). The College expects trainees to gain knowledge from these texts in the context of ophthalmic practice defined in the basic component of the curriculum. The texts are not recommended as the sole source within their subject matter and there are alternative textbook and web information that may better suit an individual's learning style.

Recommended Textbooks

1. American Ophthalmology Monograph Series. American Academy of Ophthalmology.
2. Clinical Ophthalmology: A Systematic Approach. Jack Kanski.
3. Practical Ophthalmology: A Manual for Beginning Residents. American Academy of Ophthalmology.
4. Clinical Anatomy of the Eye. Snell.
5. The Eye; Basic Sciences in Practice. John Forrester & Andrew Dick.
6. Ophthalmology: Investigation & Examination Techniques. James C.B., Benjamin Larry. Elsevier 2006.

Level 3 is the level to be achieved on completion of basic surgical training. Level 4 is the level expected for higher trainees. At level 4 trainees will read beyond the texts above, and encompass original literature and peer review articles in relevant scientific and clinical literature. Level 4 goes beyond the level of understanding and recall to extend into critical analysis and the application of evidence-based knowledge to real-life clinical scenarios. Level 4 is the level at which one would expect a newly qualified surgical ophthalmologist to function with regard to evidence-based knowledge and understanding of common clinical situations in

the specialty but also in regard to the evaluation and critical analysis of difficult and complex cases and for this to be done to a satisfactory level without the requirement for external input. Therefore the specialist training in surgical ophthalmology training programme requires a more professional approach from trainees who are expected to have a deeper understanding of the subjects. There will be many opportunities within the programme for these trainees to acquire additional knowledge and skills above and beyond the content outlined in the curriculum. Self-directed learning is an important part of professional training and forms a vital part of life-long learning and modern ophthalmic practice.

*Modified from the Intercollegiate Surgical Curriculum Programme UK 2015

Standards for Training

Standards for technical and procedural skills*

The performance standard for technical and procedural skills has a 4 stage competence level defined by a descriptor ranging from 1 to 4. ***Intercollegiate Surgical Curriculum Programme UK 2015.*** Level 3 is the standard to be achieved on completion of basic surgical training.

1. Has observed:
   Descriptor: at this level the trainee:
   - Has adequate knowledge of the steps through direct observation.
   - Demonstrates that he/she can handle steps relevant to the procedure appropriately and safely.
   - Can perform some parts of the procedure with reasonable fluency.

2. Can do with assistance:
   Descriptor: at this level the trainee:
   - Knows all the steps – and the reasons that lie behind the methodology.
   - Can carry out a straightforward procedure fluently form start to finish.
   - Knows and demonstrates when to call for assistance / advice from the supervisor (knows personal limitations).

3. Can do whole but may need assistance:
   Descriptor: at this level the trainee:
   - Can adapt to well-known variations in the procedure encountered, without direct input from the trainer.
   - Recognises and makes a correct assessment of common problems that are encountered.
   - Is able to deal with most of the common problems.
   - Knows and demonstrates when he/she needs help.
   - Requires advice rather than help that requires the trainer to assist.

4. Competent to do without assistance, including complications:
   Exit descriptor: at this level the trainee:

- With regard to the common clinical situations in the specialty, can deal with straightforward and difficult cases to a satisfactory level and without the requirement for external input.
- Is at the level at which one would expect a newly qualified surgical ophthalmologist to function.
- Is capable of supervising trainees.

C3: The Assessment Framework

The individual components of the assessment system are

C3a. The Consultant Trainer's report
C3b. Workplace-based assessments
C3c. School for Surgeons
C3d. Examinations
C3e. Human Factors OSCEs
C3f. eLogbook.
C3g. Audit – National and Local.
C3h. CAPA.

C3a: The Consultant Trainer's Report

At the end of each 6 month rotation each Consultant Trainer documents a summative report on the trainee's performance. It should be based on the initial personal development plan, include reference to completed WBAs and provide feedback on the trainee's professional and interpersonal skills. It is an important component of the CAPA process. The Personal Development Plan is available on the SFS website.

Please see Appendix C for supporting documentation including Personal Development Plan, BST Trainer Report, and CAPA A & B Form for BST.

C3b: Workplace-based assessments

WBAs encompass the assessment of skills, knowledge, behaviour and attitudes during day-to-day ophthalmic practice. WBAs have a significant impact on learning by providing feedback to trainees regarding the current level of their practice. They also inform the summative assessment at the completion of each 6-month rotation and contribute towards the documentation of the attainment of curricular outcomes which forms an important part of the CAPA process.

Types of Workplace- based Assessment used

- CBD
- Mini-CEX
- DOPS
- Multi Source Feedback (Peer Assessment Tool)

WBAs per rotation - The number of types and intensity of each type of WBA in any 6 month rotation is determined by the curriculum. A minimum number of three WBAs per 6-month clinical placement is indicated in BST1 – BST3 training. The content is based on key fundamental knowledge and skills for ophthalmic practice appropriate to each year of training. A detailed content-specific descriptor is embedded in each WBA to highlight the standard required. Each candidate is required to submit a total of 15 Workplace Based Assessments forms over the first five semesters of Basic Surgical Training (BST1A, 1B, 2A, 2B & 3A).

Please see Appendix D for the complete WBA schedule for BST Training. Each specific form is available on the SFS website.

WBAs in Basic Surgical Training

OSCAR Surgical
1. Modular Phaco 1
2. Modular Phaco 2
3. Complete Phaco
4. Successive Phaco
5. Successive 3 Phaco

DOPS Procedural
1. Gonio / GAT Glaucoma Skills
2. Fundal Skills3. Ectropion/ Lateral Tarsal Strip
4. PRP (Laser pan-retinal photocoagulation)
5. Strabismus

Mini-Cex Clinical
1. PVD (Posterior Vitreous Detachment)
2. Cataract
3. ARMD (wet)
4. MK (Microbial Keratitis)
5. EOM (Ocular Motility)

It is a trainee's responsibility to ensure that all WBA forms are submitted to the ICO by the deadline in each semester.

C3c. School for Surgeons and Interactive Classrooms

Assessment of knowledge & understanding as well as analysis and application of knowledge across key topics of the basic curriculum by case-based discussions, critical review of the literature, MCQs etc. The topics are arranged to involve both basic fundamental aspects of knowledge as well as higher level learning including relevant randomized control trials, literature searches and reviews as well as and evidence based approaches to clinical management. The 8 subspecialty categories of the curriculum - Oculoplastic, adnexal and lacrimal, Cornea & External Disease, Cataract & Refraction, Glaucoma, Vitreoretinal

Disorders including Medical Retina, Neuro-ophthalmology, Paediatric Ophthalmology & Strabismus, Accident and Emergency Ophthalmology.

Trainees are obliged to submit 60% of all assignments. Four assignments are scheduled and graded per semester. An e-Interactive Classroom using the flipped classroom model is scheduled after each assignment is completed in order to deliver feedback and augment deeper learning including critical appraisal of the literature.

C3d. Examinations

FRCOphth Part 1 Written Exam

Trainees must pass the FRCOphth Part 1 exam in order to be eligible to sit the MRCSI (Ophth) Part 2 exam. The Royal College of Ophthalmologists (RCOphth) UK are the training body that run the FRCOphth Part 1 exam. It is possible to sit the exam in multiple locations in the UK and in Dublin. Further information is available from the RCOphth website.

Refraction Exam
The Refraction Exam can constitute either the MRCSI (Ophth) Clinical Optics and Refraction examination or the FRCOphth Refraction Certificate examination.

- **The FRCOphth Refraction Certificate examination**

The FRCOphth Refraction Certificate examination is hosted by the Royal College of Ophthalmologists in the UK. It is held multiple times per year. Further details are available on the RCOphth website here: https://www.rcophth.ac.uk/examinations/refraction-certificate/

- **MRCSI (Ophth) Clinical Optics and Refraction Examination**

The (MRCSI (Ophth) Clinical Optics and Refraction Examination) is hosted in Dublin by the Royal College of Surgeons in Ireland (RCSI). For further details on the exam please visit the RCSI exams website.

Membership of the Royal College Surgeons in Ireland in Ophthalmology

The membership of the Royal College of Surgeons in Ireland in Ophthalmology (MRCSI (Ophth) is a summative assessment. It assesses knowledge and skills that are encompassed within the basic syllabus to which the MRCSI (Ophth) syllabus is mapped. The purpose of the MRCSI (Ophth) examination is to determine if trainees have acquired the knowledge, skills and understanding required to be a junior registrar (skills necessary to work with a degree of clinical independence in all areas of ophthalmology but under the supervision of a senior clinician/consultant ophthalmologist).

The MRCSI (Ophth) assesses knowledge and applied knowledge in the generality of ophthalmic training. The examination consists of two parts, Part I and II as well as the Refraction Certificate. The FRCOphth Part I and the Refraction Certificate must be successfully completed before applying to sit Part II.

The MRCSI Part II examination is a formal exit requirement from BST3 Training. It is also a mandatory requirement for entry into HST4 training.

* The MRCSI Part I has been replaced by FRCOphth UK Part I as of July 2015. Further information on the MRCSI examination is available from the RCSI Examination office and website. Please note: 6 attempts are allowed for FRCOphth Part 1 and 4 attempts are allowed for MRCSI Part II.

Information on the MRCSI (Ophth) exam is available at https://www.rcsi.com/dublin/professional-cpd/professional-exams/ophthalmology

C3e. Human Factors Programme Objective Structured Clinical Examination

The Human Factors syllabus is mapped to the good professional practice framework and the programme is delivered by acknowledged experts from the RCSI. The different modules focus on the areas of leadership and professionalism, interpersonal skills and conflict resolution, crisis management, causes and avoidance of errors, stress management and time management.

A Human Factors OSCE to assess the acquirement of advanced communication skills and professionalism is held at the end of BST Yr 1 and 2.

C3f. eLogbook.

The logbook is the trainee's record of all procedures performed on patients. Trainees record their level of involvement in a procedure and the supervision received using the descriptors. A minimum number of index procedures / lasers / refractions must be carried out during basic and specialty training.

C3g. Audit.

Assessment of audit reviews a trainee's competence in completing the audit cycle. Trainees should complete at least 4 audits during the BST1 – 3 and one audit per year during HST. Audits should ideally be completed at both national and local level.

C3h. Competence and Assessment of Performance Appraisal

Purpose - The CAPA Process is an evaluation tool which is designed to assess the progress of trainees. The CAPA scrutinises each trainee's suitability to progress to the next stage of, or complete, the training programme. It bases its recommendations on the evidence that has been gathered in the trainee's learning portfolio during the period between CAPA reviews. The CAPA is not in itself an assessment exercise of clinical or professional competence but records that the required curriculum competences and experience are being acquired, and that this is at an appropriate rate by providing a coherent record of a trainee's progress across multiple areas (clinical skills, assessments, presentations / publications and audit and examinations) by the end of their training.

The CAPA takes place on a 6 monthly basis for all trainees. The trainee's learning portfolio provides the evidence of progress. It is the trainee's responsibility to ensure that the documentary evidence is completed in adequate time for the CAPA. The Dean will monitor trainees' progress to ensure that a programme of remediation will, if necessary, be provided to assist individual trainees to successfully complete their training.

The CAPA Panel Dean, Educational Supervisors and Consultant Trainers.

Curricular Outcomes measured at the CAPA:

- The Consultant Trainer's report
- Workplace-based assessments
- CAPA A (BST)
- School for Surgeons
- Examinations
- eLogbook
- Audit – National and Local
- Courses

CAPA Outcomes – Six outcomes are possible

- Achieving progress and competences at the expected rate and should progress to the next grade.
- Development of specific competences required – additional training time not required.
- Inadequate progress by the trainee – additional training time required.
- Inadequate participation in the compulsory components of the National Training Programme - additional training time required.
- Released from training programme with or without specified competences.
- Gained all required competences; will be recommended as having completed the training programme and for an award of a CCBST.

PART 3: Evaluation & Quality Assurance of the Curriculum

Evaluation and Quality Assurance of the Curriculum

A. Training Governance Structure
B. Supervision of Training
C. Evaluation of the Training Process
D. Inspection of Training Posts

Evaluation and Quality Assurance of the Curriculum

This aspect of the Curriculum looks at how the educational programme is organised and how the supervision of training is quality assured by defining governance structures as well as the roles and responsibilities of those involved in the implementation of the curriculum in regard to supervision of training, the training systems and the individual training units.

A. Training Governance Structure

The Medical Council has overall responsibility for the quality assurance of postgraduate medical education and training in Ireland. The Medical Council has approved the ICO as the postgraduate body to deliver the National Training in Surgical Ophthalmology Programme and Curriculum. In that regard, the ICO is responsible for implementing processes to ensure the training meets national standards in accordance with the Medical Council postgraduate training guidelines.

B. Supervision of Training

The ICO is the body responsible for the delivery of postgraduate ophthalmic specialist training in Ireland. The ICO co-ordinates the educational, organisational and quality management activities of the national ophthalmic training programmes. It ensures the implementation of the curriculum with its associated training requirements for educational supervision, by clearly defining roles and responsibilities.

Roles and Responsibilities

The Dean oversees the delivery of the programme along with the Training Standards & Regulations Committee. Educational Supervisors are nominated Consultant Trainers from each designated Training Unit and ensure that there is a direct line of accountability from College to Training Unit to Consultant Trainer to Trainee.

Dean of Postgraduate Education

The Dean of the ICO is responsible for

- Organising, managing and directing the training programme, ensuring that the programme meets the curriculum requirements.
- Administering and chairing the six-monthly CAPA process.
- Overseeing progress of individual trainees through the levels of the curriculum, ensuring that appropriate levels of supervision, training and support are in place in each Unit.
- Helping Educational Supervisors manage trainees in difficulty and implementing remediation as required.

Educational Supervisor

The role of the Educational Supervisor in each Training Unit is to

- Ensure that an induction to the unit (where appropriate) has been carried out.
- Ensure a Personal Development Plan takes place between the Consultant Trainer and the trainee.
- Inform the Dean any trainee in difficulty.
- Ensure WBAs are carried out according to the Curriculum.
- Ensure an end of placement Consultant Trainer's report is provided by each Consultant Trainer for the CAPA.
- Ensure in-house teaching takes place according to the ICO guidelines and that attendance at such teaching is documented.
- Ensure timetables are in accordance with the Curriculum.

Consultant Trainer

Consultant Trainers

- Have overall educational and supervisory responsibility for the trainee in a given rotation.
- Ensure that the trainee is familiar with the curriculum and assessment system relevant to the level/stage of training and undertakes it according to requirements.
- Ensure a Personal Development Plan is put in place with the trainee with an interim review at the middle and end of the placement.
- Ensure appropriate training opportunities are in place to ensure the outcomes of the Personal Development Plan are achievable.
- Ensure that the trainee has appropriate day-to-day supervision appropriate to their stage of training.
- Give detailed feedback on a trainee's performance.
- The Consultant Trainer is responsible for providing the Trainer Report. This provides written documentation of the trainee's progress and specific learning outcomes and is facilitated by reviewing the outcomes of the Personal Development Plan.

Trainee

The ICO encourages learning which is trainee-led and trainer-guided. Trainees are expected to take a proactive approach to learning. The trainee is responsible for ensuring that

- A Personal Development Plan is put in place.

- Opportunities to discuss progress are identified.
- Workplace-based assessments are undertaken.
- Evidence is documented and provided for the CAPA process in a timely manner.

The Training Standards & Regulations Committee

The Training Standards & Regulations Committee provides governance, structure and standards for postgraduate education, training and assessment in line with the Medical Council Accreditation Standards on behalf of the ICO Board and supports the ICO Dean of Postgraduate Education.

The Committee is responsible for:

- Overseeing the development & delivery of an education, training and assessment strategy including:
    1. Approval of curricula and syllabi for all levels of surgical ophthalmology training
    2. Setting of criteria for trainee selection & matching to clinical rotation
    3. Setting standards for assessment and progression
    4. Setting the requirements for training post accreditation

The Training Advisory Committee

The Training Advisory Committee provides expert advice on postgraduate education and training to the ICO, on behalf of the ICO Board, as it undertakes its statutory responsibilities with respect to training.

The Committee is responsible for:

- Acting as the key communications link between the ICO and the trainers on the National Ophthalmology Training Programmes.
- Providing advice and feedback on Basic and Higher Surgical Ophthalmology training assessment and progression in Ireland.
- Considering and advising on relevant education, training and assessment issues raised by trainers and trainees.

C. Evaluation of the Training System and Training Programme

- Audit of achievement of Curricular Outcomes (WBAs).
- Audit of CAPAs.
- Audit of trainee performance at MRCSI examinations.
- Audit of attrition rates.
- Audit of Trainee Surveys
- Audit of Remediation

D. Inspection of Training Posts

As part of its role in the quality management of ophthalmic specialist training, the ICO developed a quality assurance strategy for its inspection of basic training posts. The quality indicators developed by the ICO are available in Appendix I.

The ICO recommends that clinical placements need to be in Training Units that:

- Are able to provide sufficient clinical resource.
- Have sufficient trainer capacity.
- Have high quality clinical and procedural supervision.
- Meet the requirements of the training programme curriculum.

Trainees must be placed in approved posts that meet the required training and educational standards. Individual hospitals and units must take responsibility for ensuring that clinical governance and health and safety standards are met.

Appendix A: The Basic Syllabus

A: Overview

B: Ophthalmic subspecialties

1. Oculoplastic, orbital and lacrimal disease
2. Cornea & external eye disease
3. Cataract & refraction
4. Glaucoma
5. Vitreoretinal and medical retina disease
6. Neuro-ophthalmology
7. Paediatric ophthalmology & strabismus
8. Accident and emergency ophthalmology

A: Overview

The Basic Syllabus comprises the following components

Key learning outcomes are identified for each subspecialty section of the syllabus. These are assessed via multiple methods including mini-CEX, CBD, online assignments on the SFS platform and MRCSI Part II throughout basic training.

Index procedures refer to ophthalmic examination techniques or procedures. Direct Observation of Procedural Skills (DOPs), Supervised Structured Assessment of Operative Performance (SSAOP) and the elogbook are employed to evidence the acquirement of technical competence.

Standards: The *standards* of knowledge and skill is highlighted for each section**.**

*Assessment of key topics and index procedures is indicated by a number beside each topic or procedure. Each number represents the category of assessment tool - as indicated below.

1. Workplace Based Assessments – mini-CEX, CBD, DOPS, SSAOP
2. SFS – include CBDs, journal reviews and MCQs
3. MRCSI Part I, Refraction Certificate, Part II written and clinical
4. eLogbook
5. Human Factors OSCE
6. Consultant Trainer Report

B: Ophthalmic subspecialties

The specialty of ophthalmology is divided into eight subspecialties. The learning outcomes and index procedures are outlined below.

1. Oculoplastics, orbital and lacrimal disease

Key clinical competencies and learning outcomes:

The trainee will know or perform to descriptor level 3

- OPL[B] LO 1 The symptoms and signs of lid, naso-lacrimal and orbital disease. [1,2,3]
- OPL[B] LO 2 The assessment of upper and lower lid position including assessment of ectropion, entropion, ptosis, lid laxity, trichiasis, proptosis, enophthalmos, lagophthalmos and exposure. [1,]
- OPL[B] LO 3 The assessment of abnormal lid swelling including chalazion, retention cysts, papilloma and basal cell carcinoma. [1,]
- OPL[B] LO 4 The assessment and management of the watering eye, including the distinction between excessive lacrimation and nasolacrimal obstruction, and the use of evaluative clinical testing and investigations including syringing and probing to establish same. [1,,2]
- OPL[B] LO 5 The assessment and management of lid, ocular and lacrimal trauma, orbital and compression fractures and traumatic optic neuropathy. [2]
- OPL[B] LO 6 The assessment, focused evaluation and management of the different causes of orbital swelling including inflammatory orbital disease, orbital masses distinguishing intraconal from extraconal space-occupying lesions, recognition of compressive optic neuropathy. [2,3]
- OPL[B] LO 7 The assessment and management of orbital cellulitis in adults and children, the difference in management in the paediatric population, haematological and imaging investigations, selection of appropriate antibiotics, recognition of complications and appropriate liaison with ENT/ Neurosurgical teams. [2,3]
- OPL[B] LO 8 The assessment and management of thyroid eye disease including staging, classification for progression, MRI imaging protocols, recognition of compressive optic neuropathy, role of orbital radiotherapy, steroids and orbital surgery as well as knowledge of systemic manifestations of thyroid disease and its medical and radioactive treatment. [2,3]
- OPL[B] LO 9 The appropriate selection and interpretation of orbital imaging including CT and MRI scans. [1,2,3]
- OPL[B] LO 10 Appropriate liaison with Neurosurgeons, ENT, Endocrinologists and prosthetic service.

The trainee will know to descriptor level 2

- OPL[B] LO 11 Sebaceous carcinoma of lid and squamous cell carcinoma.
- OPL[B] LO 12 Cicatricial malposition of the lids.
- OPL[B] LO 13 Management of ptosis and blepharospasm.
- OPL[B] LO 14 Canalicular repair, dacryocystorhinostomy.
- OPL[B] LO 15 Non-thyroid inflammatory orbital & lacrimal diseases/tumours & their treatment.
- OPL[B] LO 16 Paranasal sinus disease.

- OPL[B] LO 17 Enucleation, evisceration and fitting of prosthesis, exenteration.

Index Core Skills (ICS)
The trainee will perform to descriptor level 3

- OPL[B] ICS 1 Exophthalmometry. [3]
- OPL[B] ICS 2 Syringing and probing. [1,4]
- OPL[B] ICS 3 Incision and curettage for chalazion. [1,4]
- OPL[B] ICS 4 Wedge biopsy and/removal of papilloma, etc. [1,4]
- OPL[B] ICS 5 Electrolysis/cryotherapy for trichiasis. [1,4]
- OPL[B] ICS 6 A professional clinical assessment with communication of diagnosis and prognosis taking into account a patient anxieties, communication ability and social and mental status.[1,5]
- OPL[B] ICS 7 An informed consent with explanation of risks and benefits of recommended treatment or surgery in a manner respectful and sensitive to the patient's needs as well as social and mental status.[1,5]

2. Cornea & external eye disease

Key clinical competencies and learning outcomes:
The trainee will know or perform to descriptor level 3

- CExt[B] LO 1 The symptoms and signs of external eye disease and corneal disease.[1,3]
- CExt[B] LO 2 How to take an accurate history and perform a competent anterior segment examination of the lids, conjunctiva (bulbar and tarsal), cornea, sclera and episclera. [1,3]
- CExt[B] LO3 The aetiology, pathophysiology, diagnosis and treatment of infectious external disease, including viral, bacterial and chlamydial conjunctivitis. [2,3]
- CExt[B] LO 4 The assessment and management of blepharitis, meibomianitis, and its treatment. [2,3]
- CExt[B] LO 5 The assessment and management of epislceritis.
- CExt[B] LO 6 The assessment of the dry eye, including symptoms, assessment of reduced tear production (TFBUT, TM, corneal/conjunctival staining) tear film stability and systemic associations, as well as its management. [1,3]
- CExt[B] LO 7 The assessment and evidence-based management of traumatic injury and chemical injury of the conjunctiva and cornea. [2]
- CExt[B] LO 8 The assessment and evidence-based management of allergic and atopic eye disease. [3]
- CExt[B] LO 9 The assessment and evidence-based management of microbial keratitis and its differential diagnosis. An in-depth understanding of common gram positive and gram-negative causes of microbial keratitis with knowledge of spectrum of cover of commonly used topical antibiotics, including evidence of RCTs on monotherapy versus dual therapy and evidence-based knowledge of the complications and potential hazards of topical steroid use. [1,2,3,7]
- CExt[B] LO 10 The identification of acanthomeba and fungal keratitis, implications of early diagnosis, knowledge of various treatment regimens including duration of treatment and indications for corneal biopsy. [2,3,7]

- CExt^{B} LO 11 The assessment and management of corneal ulceration from viral and bacterial disease, marginal keratitis and neurotrophic disease and inflammatory disease. [1,2,3]
- CExt^{B} LO 12 The assessment and management of Herpes Simplex keratitis, with evidence base from HEDS I and II. Evidence based knowledge on prophylaxis for epithelial vs stromal disease. [1,2,3,7]
- CExt^{B} LO 13 The indications for therapeutic contact lenses and their complications. [1,2,3]
- CExt^{B} LO 14 The causes of corneal oedema, endothelial cell count measurements, Fuch's endothelial dystrophy, corneal transplantation, indications for PK / DSEK, standards of care in donor eye procurement, signs of graft rejection & other complications[3]
- CExt^{B} LO 15 The identification and evaluation of corneal ectasia and indications for cross-linking, [2,3]
- CExt^{B} LO 16 The appropriate utilization of corneal topography, pachymetry, keratometry and Placido's disc. [2,3]
- CExt^{B} LO 17 The pharmacology and pharmokinetics of topical medications. [2]

The trainee will know to descriptor level 2

- CExt^{B} LO 18 The common corneal dystrophies and interstitial keratitis.
- CExt^{B} LO 19 The basics of refractive surgery.
- CExt^{B} LO 20 Cicatricial conjunctival disease and limbal stem cell transplantation.
- CExt^{B} LO 21 Autoimmune corneal and scleral disease including peripheral ulcerative keratitis and use of immunosuppressive therapies.
- CExt^{B} LO 22 The management of pterygium, conjunctival and uveal tumours.

Index Core Skills (ICS)

The trainee will perform to descriptor level 3

- CExt ICS 1 Slit-lamp biomicroscopy. [1,]
- CExt ICS 2 Conjunctival sampling & corneal scraping for microbiological investigations. [1,4]
- CExt ICS 3 Corneal topography, pachymetry, keratometry and Placido's disc.[3]
- CExt ICS 4 Cross-linking.[4]
- CExt ICS 5 Punctal occlusion. [1,4]
- CExt ICS 6 Performance of a professional clinical assessment with communication of diagnosis and prognosis taking into account a patient anxieties, communication ability and social and mental status.[1,5]
- CExt ICS 7 Performance of informed consent with explanation of risks and benefits of recommended treatment or surgery in a manner respectful and sensitive to the patient's needs as well as social and mental status.[1,5]

Essential Reading

Ofloxacin Study Group.
HEDS I and II.
Steroids for Corneal Ulcer Trial SCUT

3. Cataract & Refraction

Key clinical competencies and learning outcomes:

The trainee will know or perform to descriptor level 3

- CAT^{B} LO 1 The symptoms and signs of cataract and refractive disease and how to perform a competent examination of both systems, including LogMAR Charts. [1,3]
- CAT^{B} LO 2 The assessment and management of ametropia, including hypermetropia, myopia, astigmatism and their complications. [1,3]
- CAT^{B} LO 3 The assessment and management of accommodation problems, including spasm and presbyopia.
- CAT^{B} LO 4 The assessment and management of lens opacifications, including types of cataract, relationship of opacity to symptoms, contribution to visual loss in co-morbidities, systemic associations, cataract surgery and its complications. [1,3]
- CAT^{B} LO 5 The risks and benefits of cataract surgery, knowledge of ocular and systemic factors that increase risk and role of co-morbidities in outcome, how to perform informed consent. [1,3,5]
- CAT^{B} LO 6 The pre-operative and post-operative assessment of phacoemulsification surgery, with attention to ocular, systemic and medication related factors that influence the surgical outcome. [1,2, 3]
- CAT^{B} LO 7 The assessment and management of pseudoexfoliation of the lens capsule, including its recognition and significance pre-operatively and intra-operatively as well as its association with glaucoma. [1,2,3]
- CAT^{B} LO 8 The calculation of intraocular lens power according to the patient's refractive needs, knowledge of algorithms, including post-refractive surgery. [1,2,3]
- CAT^{B} LO 9 The diagnosis and immediate management of post-operative endophthalmitis, with knowledge of relevant causative bacteria and appropriate antibiotic treatment regimens. [1,2,3]
- CAT^{B} LO 10 Liaison with contact lens service.

The trainee will know to descriptor level 2

- CAT^{B} LO 11 Basis of spectacle intolerance from poor dispensing or defective prescription.
- CAT^{B} LO 12 Combined cataract and glaucoma/corneal transplantation surgery.
- CAT^{B} LO 13 Ectropia lentis and Marfan's syndrome.
- CAT^{B} LO 14 Therapeutic contact lenses, refractive surgery, intraocular lens design and biomaterials.

Index Core Skills (ICS)

The trainee will perform to descriptor level 3

- CAT^{B} ICS 1 logMAR charts in the assessment of visual acuity. [1,3]
- CAT^{B} ICS 2 Retinoscopy, correction of refractive error by spherical, cylindrical & multi-focal lenses, lens neutralisation & use of focimeter, trial lenses & subjective refraction. [3,4]
- CAT^{B} ICS 3 Biometry and keratometry for intraocular lens calculation, both IOL Master and immersion methods. [1,2,3]
- CAT^{B} ICS 4 A professional pre-operative clinical assessment for cataract surgery with attention to ocular, systemic and medication related factors that influence the surgical

outcome. Communication of diagnosis and prognosis taking into account a patient anxieties, communication ability and social and mental status.[1,2,3,5]

- CAT[B] ICS 5 A communication and explanation of the occurrence of a post-operative complication requiring further surgery, in a manner respectful and sensitive to the patient's and relatives concerns and anxieties as well as adapted to their social and mental status.[1,5]
- CAT[B] ICS 6 YAG laser posterior capsulotomy. [1,4]

4. Glaucoma

Key clinical competencies and learning outcomes:

The trainee will know or perform to descriptor level 3

- GL[B] LO1 How to take an accurate history and perform an accurate and reliable clinical examination of the anterior segment relevant to glaucoma (pachymetry, identification of PDS, PXF, anterior segment dysgenesis, etc) gonioscopy, tonometry. [1,2,3]
- GL[B] LO2 The aetiology, risk factors and pathophysiology of glaucoma.[1,2,3]
- GL[B] LO3 The assessment, diagnosis, management of open and closed angle forms of glaucoma. [1,2,3]
- GL[B] LO4 The pathophysiology and management of ocular hypertension as well as secondary glaucomas such as PDG, PXF, traumatic. [1,2,3]
- GL[B] LO5 The accurate evaluation and assessment of the optic nerve head. [1,2,3]
- GL[B] LO6 The physiology of white-on-white perimetry and accurate analysis of visual field performance. [1,2,3]
- GL[B] LO7 The different methods to monitor for visual fields progression. [1,2,3]
- GL[B] LO8 The importance of systemic vascular conditions, in particular vasospasm & low blood pressure, in glaucoma, especially normal tension glaucoma.[2]
- GL[B] LO9 The pharmacology & pharmokinetics of topical & systemic glaucoma medication. [1,2,3]
- GL[B] LO10 The appropriate prescribing of pharmacological therapy to include advise of adverse reactions and side effects of therapy. [1,2,3]
- GL[B] LO11 A professional communication to patients and relatives regarding the implications of a diagnosis of glaucoma in relation to prognosis, chronicity of disease & treatment compliance [1,5]
- GL[B] LO12 How to monitor compliance.
- GL[B] LO13 How to assess effectiveness of therapy. [1,2,3]
- GL[B] LO14 The assessment, diagnosis and management (medically) and treat (laser) of acute angle closure glaucoma. [1,2,3]
- GL[B] LO15 An evaluation for rubeotic glaucoma.[1,2,3]
- GL[B] LO16 The timing and indications of glaucoma drainage surgery, complications and their treatment. [1,2,3]

The trainee will know to descriptor level 2

- Optic nerve imaging and retinal nerve fibre layer analysis.

- Other secondary glaucomas including phacolytic, erythroclastic, and silicone-oil glaucomas, Posner Schlossman syndrome, chronic closed angle glaucoma and malignant glaucoma.
- Aniridia and other dysgenesis, ICE, Hypotony, including its causes and consequences.
- Selective and Argon laser trabeculoplasty
- Prevention of glaucoma bleb failure e.g. using anti-metabolites
- Drainage tubes and stents / Cycloablation.

Index Core Skills

The trainee will perform to descriptor level 3

- Goldmann Applanation Tonometry. [1]
- Pachymetry. [1]
- Gonioscopy including indentation gonioscopy. [1]
- Optic disc assessment and evaluation. [2,3]
- Visual field testing and interpretation, including Goldmann and white-on-white Standard Automated Perimetry (SAP). [1,2,3]
- Performance of YAG laser peripheral iridotomy [1,4]
- A professional clinical assessment with communication of diagnosis and prognosis taking into account a patient anxieties, communication ability and social and mental status.[1,5]
- An informed consent with explanation of risks and benefits of recommended treatment or surgery in a manner respectful and sensitive to the patient's needs as well as social and mental status.[1,5]

Essential Reading

European Glaucoma Society Guidelines 2017

5. Vitreoretinal and medical retina disease

Key clinical competencies and learning outcomes:

The trainee will know or perform to descriptor level 3

- MRet^{BM} LO 1 How to take a history relevant to posterior segment disease.[1,2,3]
- MRet^{BM} LO 2 The symptoms of posterior segment disease and relation to disease entity. [1,2,3]
- MRet^{BM} LO 3 The assessment of visual function- Logmar and Snellen visual acuity, Amsler Grid testing, contrast sensitivity, pupillary examination. [2]
- MRet^{BM} LO 4 The signs of vitreous abnormalities - vitreous detachment (PVD), operculum formation, syneresis and vitreous opacities (including asteroid and haemorrhage, snowballs) and vitreous cells detection (inflammatory, neoplastic and pigment). [1,2,3]
- MRet^{BM} LO 5 The signs of retinal abnormalities - retinal breaks (atrophic holes, horse-shoe tears, u-tears,retinal dialysis), retinal detachment (rhegmatogenous or exudative), senile/acquired retinoschisis, recognition and classification of proliferative vitreoretinopathy), inflammatory change (snowbanking). The signs of retinal vasculature abnormalities in relation to systemic/ocular disease (hypertension, diabetes mellitus including neovascularisation and intraretinal microvascular abnormalities (IRMAs),

retinal vascular occlusions, retinal arteriolar occlusions, drug (plaquenil) toxicities, retinal vasculitis (arteritis or venulitis), ocular ischaemic syndrome. [1,2,3]

- MRet[BM] LO 6 The signs of macular abnormalities – abnormal foveal reflex, Watske- Allen sign, epiretinal membrane, retinal thickening, VMT, cystoid macular oedema, age-related maculopathy, choroidal neovascular membrane and haemorrhage, vitelliform lesions, drusen, RPE change, pigment epithelial detachment, central serous disease and macular hole, related symptomatology and urgency of treatment.[1,2,3]
- MRet[BM] LO 7 The relevance of symptoms of flashes and floaters, the complications of posterior vitreous detachment and the identification of retinal tears. [1,2,3]
- MRet[BM] LO 8 The initial management of vitreous hemorrhage from retinal tears or neovascularization. [1,2,3]
- MRet[BM] LO 9 The classification of retinal detachments, rhegmatogenous or exudative, predisposition, recognition, surgical choice for re-attachment & urgency of treatment (macular on / off) and recognition of proliferative vitreoretinopathy. [1,2,3]
- MRet[BM] LO 10 The classification of, screening strategies for, and management of diabetic retinopathy. [1,2,3]
- MRet[BM] LO 11 The clinical assessment for and the accurate diagnosis of hypertensive & arteriosclerotic retinopathy, including macroaneurysm formation. [1,2,3]
- MRet[BM] LO 12 The clinical assessment for and the accurate diagnosis of retinal vascular occlusions, and the identification of ischaemic and exudative responses including rubeosis. [1,2,3]
- MRet[BM] LO 13 The clinical assessment for and the accurate diagnosis of macular diseases, including identification and management of age-related maculopathy, choroidal neovascularization, cystoid macular oedema, CSR, ERM, VMT and macular hole, macular telangiectasia I & II, related symptomatology and urgency of treatment. [1,2,3]
- MRet[BM] LO 14 The clinical assessment for and the accurate diagnosis of central retinal artery occlusion / Giant Cell Arteritis. [5]
- MRet[BM] LO 15 The medical workup for retinal vascular disease and the importance of control of risk factors. [1,2,3]
- MRet[BM] LO 16 The differential diagnosis & treatment of malignant melanoma & identification of suspicious naevi. [5]

The trainee will know to descriptor level 2

- MRet[BM] LO 17 The clinical signs of anterior, intermediate & posterior uveitis- classification, toxoplasmosis, toxocara, syphilis, TB, sarcoid, Bechet's, Lyme, cat-scratch, sympathetic ophthalmia and their investigations and treatment. . [1,2,3]
- MRet[BM] LO 18 Low vision Aid services and blind registration services
- MRet[BM] LO 19 Toxic maculopathies. [1,2,3]
- MRet[BM] LO 20 Indocyanine green angiography, electrodiagnostic tests and dark adaptation.
- MRet[BM] LO 21 Genetic retinal disease, retinal dystrophies, retinoblastoma.
- RET[BS] LO 22 Signs of choroidal or scleral disease - choroidal melanoma, inflammatory choroidal disease (choroiditis, granuloma), posterior scleritis. [1,2,3]
- MRet[BM] LO 23 Rare retinal disease Intraocular lymphoma, CAR. AZOOR. ARN
- MRet[BM] LO 24 Coats' disease.

- MRet[BM] LO 25 AIDS-related opportunistic infections including CMV and anti-AIDS treatment.
- MRet[BM] LO 26 Other vasoproliferative vitreoretinopathies including sickle cell retinopathy, retinopathy of prematurity, Eales' disease.
- MRet[BM] LO 27 Vitreoretinal surgery, including closed intraocular microsurgery, scleral buckling & internal tamponade.
- MRet[BM] LO 28 Intraocular foreign body, complications and management.
- MRet[BM] LO 29 Retinal phakomatoses.
- MRet[BM] LO 30 Genetic vitreoretinal disease – Stickler syndrome, X-linked retinoschisis, choroido-retinal coloboma.

Index Core Skills (ICS)

The trainee will perform to descriptor level 3

- RET[BM] ICS 1 A diagnostic examination of the vitreous including vitreous detachment (PVD), syneresis and vitreous opacities (including asteroid and hemorrhage) and vitreous cell detection (inflammatory, neoplastic and pigment).[1,3]
- RET[BM] ICS 2 A diagnostic examination of macula (90 D, 78 D) to include foveal reflex assessment, Watske Allen test, identification of epiretinal membrane, vitreo-macular traction, retinal thickening, choroidal neovascular membrane, drusen, RPE change, pigment epithelial detachment, central serous disease and macular hole formation. [1,3]
- RET[BM] ICS 3 A diagnostic examination of the peripheral retina (90 D, 78 D, 20 D) utilising indentation techniques & retinal drawings to correctly identify retinal breaks (atrophic holes, horse-shoe tears, u-tears, retinal dialysis), retinal detachment (rhegmatogenous or exudative) and inflammatory change (snowbanking). [1,3]
- RET[BM] ICS 4 Optical Coherence Tomography to correctly identify vitreoretinal interface intra-retinal and sub-retinal pathology. [1,2,3]
- RET[BM] ICS 5 Fundus Fluorescein angiography to correctly identify intra-retinal and sub-retinal pathology. [1,,2,3]
- RET[BM] ICS 6 B-scan ultrasonography to correctly identify vitreous haemorrhage and retinal detachment.
- RET[BM] ICS 7 Laser via slit-lamp for retinal tear. [4]
- RET[BM] ICS 8 Pan- retinal laser photocoagulation of the peripheral retina. [1,4]
- RET[BM] ICS 9 Macular laser – focal/grid. [1,4]
- RET[BM] ICS 10 Intravitreal injection technique- indications, complications. [1,4]
- RET[BM] ICS 11 A professional clinical assessment with communication of diagnosis and prognosis taking into account a patient anxieties, communication ability and social and mental status.[1,5]
- RET[BM] ICS 12 An informed consent with explanation of risks and benefits of recommended treatment, laser or surgery in a manner respectful and sensitive to the patient's needs as well as social and mental status.[1,5]

Essential Reading

AREDS I and II
PIERS, MARINO, CATT, IVAN
CRVO Study, BRVO study, BRAVO, BRIGHT, CHRYSTAL

RISE / RIDE
GALILEO / COPERNICUS

6. Neuro-Ophthalmology

Key Clinical Competencies and Learning Outcomes:
The trainee will know or perform to descriptor level 3

- NO^{B} LO1 The symptoms and signs of visual pathway disorders. [1,2,3]
- NO^{B} LO2 The aetiology of visual pathway disorders (ischaemic, inflammatory, infectious, compressive, toxic, neoplastic, autoimmune, congenital) and the identification of the site and nature of the lesion/s from relevant history and examination. [1,2,3]
- NO^{B} LO3 The appropriate investigations for visual loss and lesions of the afferent visual pathway, including optic neuropathies (ischaemic, inflammatory, infectious, compressive, toxic, neoplastic, autoimmune, congenital), chiasmal and retro-chiasmal disorders. [1,2,3]
- NO^{B} LO4 The neuro-ophthalmic examination to accurately diagnose cranial nerve anomalies, understand their clinical relevance and to correctly prioritize their management based on a life-threatening or a sight threatening clinical basis. [1,3,7]
- NO^{B} LO5 The vascular disorders appropriate to neuro-ophthalmology including their clinical assessment, diagnosis and appropriate management - to include ischemic optic neuropathies, cerebro-vascular accidents / transient ischaemic attacks, vasculitis, giant cell arteritis and carotid artery dissection. [1,2,3,7]
- NO^{B} LO6 The neuro-ophthalmic examination for temporal arteritis with knowledge of its range of presentations, its sight threatening nature, the relevant haematological, radiological and histological investigations and the importance of prompt treatment with steroids. [1,3,7]
- NO^{B} LO7 The neuro-ophthalmic examination to accurately diagnose eye movement abnormalities including supra- and infra-nuclear lesions, internuclear ophthalmolplegia, nystagmus and ocular myopathies. [3]
- NO^{B} LO8 The disorders of neuro-immunology including multiple sclerosis (especially in relation to its ophthalmic manifestations) and myasthenia gravis. [2,3]
- NO^{B} LO 9 The neuro-ophthalmic examination to accurately diagnose and manage optic neuritis with reference to the existing evidence base and to select appropriate imaging with reference to imaging protocols for diagnosis, staging and prognosis. [2,3,7]
- NO^{B} LO 10 The neuro-ophthalmic examination to accurately diagnose swollen optic discs and evaluate for papilloedema and assess for Benign Intracranial Hypertension, as well as differentiate from ischemic optic neuropathy, acute optic neuritis, toxic optic neuropathies and congenital optic disc anomalies. [3,7]

The trainee will know or perform to descriptor level 2

- NO^{B} LO 11 Tests of retinal and optic nerve function (VEP, ERG, PERG, EOG).
- NO^{B} LO 12 The accurate interpretation of psychophysical tests (including tests of visual acuity, visual fields and colour vision), neuro-physiological tests (including tests of retinal and optic nerve function), and orthoptic examinations (including the cover test, the prism cover test, field of BSV and Hess charts). [1,3]

- NO^{B} LO 13 The clinical urgency, appropriate selection and interpretation of neuro-imaging, including CT and MRI of eye, orbit and brain, MRA and MRV, carotid Doppler ultrasound.
- NO^{B} LO 14 An effective communication with patients, including those with impaired visual function. [1,3,5]
- NO^{B} LO 15 The importance of visual rehabilitation and the management of visual handicap.
- NO^{B} LO 16 A professional liaison with neurologists, neurosurgeons, endocrinologists and vascular surgeons.
- NO^{B} LO 17 Botulinum toxin treatment, its mechanism of action and its clinical applications. [3,4]
- NO^{B} LO 18 Tensilon test, tests for Horner's Syndrome and for Adies Pupil [2,3]

Index Core Skills ICS

The trainee will perform to descriptor level 3

- NO^{B} ICS 1 An accurate and reliable clinical neuro-ophthalmic examination including CRNs I to XII, VFs to confrontation / macular sparing and optic nerve assessment. [1,3]
- NO^{B} ICS 2 Interpretation of Goldmann VFs & Visual evoked potentials (VEP). [1,3]
- NO^{B} ICS 3 An accurate ocular motility examination (including the cover test, the prism cover test, field of BSV and Hess charts). [1,3]
- NO^{B} ICS 4 A professional clinical assessment with sensitive communication of a diagnosis with a poor visual prognosis taking into account a patient anxieties, communication ability and social and mental status. [1,5]
- NO^{B} ICS 5 An informed consent with explanation of risks and benefits of recommended treatment or surgery in a manner respectful and sensitive to the patient's needs as well as social and mental status. [1,5]

Essential Reading

Optic Neuritis Study I and II

7. Paediatric ophthalmology and strabismus

Key Clinical Competencies and Learning Outcomes

The trainee will know or perform to descriptor level 2

- Paed^{BM} LO 1 The prevention and treatment of amblyopia and strabismic amblyopia and the role of screening strategies, the role and timing of refraction, correction of refraction error, spectacle prescription, occlusion therapies, patching and atropine. [3]
- Paed^{BM} LO 2 The diagnosis and management of concomitant strabismus, the interpretation of the orthoptic report, the role of accommodation, indications for surgery, prediction of post-operative diplopia. [3]
- Paed^{BM} LO 3 Incomitant & comitant strabismus, cranial nerve palsies including 6th nerve palsy & presentation of raised intracranial pressure in a paediatric population [1,3]
- Paed^{BM} LO 4 The ocular motility syndromes (Duane's, Brown's). [1,3]

- Paed[BM] LO 5 The diagnosis, management and treatment of paediatric lens abnormalities including congenital cataract, unilateral and bilateral, and prevention of amblyopia. [3]
- Paed[BM] LO 6 The diagnosis, management and treatment of paediatric uveitis and paediatric systemic disease with ocular involvement. [1,2,3]
- Paed[BM] LO 7 The diagnosis, management and acute treatment of orbital cellulitis. [1,2,3]
- Paed[BM] LO 8 The diagnosis, management and acute treatment of ophthalmia neonatorum. [1,2,3]
- Paed[BM] LO 9 The diagnosis and management of accidental and non-accidental eye injury and the approach to infants, children and their parents. [1,2,3]
- Paed[BM] LO 10 The diagnosis and management of congenital nasolacrimal obstruction.[1,2,3]
- Paed[BM] LO 11 The accurate and targeted clinical assessment of the apparently blind infant with reference to normal and delayed visual maturation, learning disabilities and role of visual electro-physiology.
- Paed[BM] LO 12 The diagnosis, management and treatment of paediatric ocular tumours including the differential diagnosis of leucocoria and differential diagnosis of retinoblastoma.
- Paed[BM] LO 13 The diagnosis and management of ocular albinism.
- Paed[BM] LO 14 Professional liaison with pediatricians, geneticists and services for the rehabilitation of the visually disabled child.

The trainee will know to descriptor level 2

- Paed[BM] LO 15 The diagnosis, management and treatment of paediatric glaucoma, including congenital glaucoma.
- Paed[BM] LO 16 The diagnosis, management and treatment of paediatric retinal disease.
- Paed[BM] LO 17 The diagnosis, management and treatment of paediatric neuro-ophthalmology and knowledge of paediatric neurological diseases affecting vision
- Paed[BM] LO 18 Nystagmus, congential and acquired.
- Paed[BM] LO 19 Ocular myopathies and the neuromuscular junction.
- Paed[BM] LO 20 Oblique muscle, vertical muscle and adjustable suture surgery.
- Paed[BM] LO 21 Retinopathy of prematurity, screening and treatment.
- Paed[BM] LO 21 Genetic and developmental disorders, Leber's amaurosis, X-linked schisis, Coats' disease.
- Paed[BM] LO 23 Presentation of raised intracranial pressure in infancy and childhood.
- Paed[BM] LO 24 Orbital tumours in children, including rhabdomyosarcoma.
- Paed[BM] LO 25 Services for the rehabilitation of the visually disabled child.

Index Core Skills (ICS)

The trainee will perform to descriptor level 3

- Paed[BM] ICS 1 Assessment of the visual acuity in infants and children including fixation, preferential looking, single and linear optotype tests.
- Paed[BM] ICS 2 Fundoscopy in children. [1]
- Paed[BM] ICS 3 Cycloplegic refraction & prescribing for children including bifocals and Fresnel prisms. [1]

- Paed[BM] ICS 4 Cover test in infants / children (including alternate and prism) including identifying and characterizing esotropic and exotropic ocular motility conditions in children. [1]
- Paed[BM] ICS 5 Stereo tests in infants / children, to include the management of amblyopia and of disorders of binocular function. [1]
- Paed[BM] ICS 6 Evaluations and referrals of patients for orthoptic treatment as appropriate, monitor progress of amblyopia treatment, evaluate the suitability of prisms as a corrective measure for the patient. [1,3]
- Paed[BM] ICS 7 Ocular motility assessments to identify vertical strabismus, Duane's syndrome and Brown's syndrome. [1,3]
- Paed[BM] ICS 8 A professional and clinical assessment, sensitively adapted to the paediatric setting, with communication of diagnosis and prognosis to the parents, taking into account their anxieties, communication ability and social and mental status.[1,5]
- Paed[BM] ICS 9 An informed consent to parents with explanation of risks and benefits of treatment or surgery in a manner respectful and sensitive to both the child's and the parents' needs as well as their social and mental status.[1,5]

Essential Reading
Paediatric Eye Disease Investigator Group Studies.

8. Accident and Emergency Ophthalmology

Key Clinical Competencies and Learning Outcomes:
The trainee will know or perform to descriptor level 3

- ER[B] LO 1 A clinical assessment for superficial ocular trauma including assessment and treatment for foreign bodies, abrasions and minor lid lacerations. [4]
- ER[B] LO 2 A clinical assessment and management for moderate blunt ocular injury including hyphaema, commotio retinae, orbital fracture. [2]
- ER[B] LO 3 A clinical assessment and initial management for severe orbital injury including corneal & scleral wounds, aqueous leakage & tissue prolapse, traumatic optic neuropathy.
- ER[B] LO 4 A clinical assessment and initial management for retained intraocular foreign body with appropriate imaging with X-ray and / or CT scan.
- ER[B] LO 5 A clinical assessment and initial management chemical/alkali burns of the conjunctiva and cornea.[1,3]
- ER[B] LO 6 A clinical assessment and initial management of sudden painless loss of vision from retinal arterial occlusion, central retinal vein occlusion, acute ischaemic optic neuropathy, temporal arteritis, optic neuritis with prompt treatment where urgent. [1,3,7]
- ER[B] LO 7 A clinical assessment and initial management of severe intraocular infection from endophthalmitis or keratitis.
- ER[B] LO 8 A clinical assessment of acute angle closure glaucoma with initial management for acute reduction of intraocular pressure. [1,3]
- ER[B] LO 9 Professional liaison with radiological department, microbiology department, ENT and maxillary-facial surgeons.

The trainee will know or perform to descriptor level 2

- ER^{B} LO 10 Eye protection and prevention of injury.
- ER^{B} LO 11 Lateral canthotomy and inferior cantholysis for retrobulbar haemorrhage.

Index Core Skills ICS

The trainee will perform to descriptor level 3

- ER^{B} ICS 1 Removal of superficial foreign body. [4]
- ER^{B} ICS 2 Corneal epithelial debridement. [4]
- ER^{B} ICS 3 Repair of minor conjunctival/lid lacerations. [4]
- ER^{B} ICS 4 Placement of a BCL.
- ER^{B} ICS 5 Irrigation of eye following chemical injury.
- ER^{B} ICS 6 Removal of sutures from the eye and adnexae. [4]
- ER^{B} ICS 7 A professional and clinical assessment, adapted to a busy and undermanned accident and emergency setting, with communication of diagnosis and prognosis to a difficult patient, taking into account their anxieties, communication ability and social and mental status.[1,5]
- ER^{B} ICS 8 An informed consent process with explanation of risks and benefits of treatment or surgery in a manner respectful and sensitive to the patient's needs as well as their social and mental status.[1,5]

Appendix B: Human Factors in Patient Safety Programme

Surgical Ophthalmologists need to be able to perform in differing conditions and circumstances, respond to the unpredictable and make decisions under pressure, frequently in the absence of all the desirable data. They use professional judgement, insight and leadership in everyday practice, working within multi-professional teams. Their conduct is guided by professional values and standards as laid down in the eight domains of good professional practice by the Medical Council.

The Human Factors syllabus is mapped to the good professional practice framework and the programme is delivered by acknowledged experts from the RCSI. The programme has a modular approach, and each module has precise learning objectives. The syllabus is arranged so that the modules can be taken in any order and a system of credits will be used to signify satisfactory completion of individual modules. Each module is designed to be delivered over a one day period and it is intended that each trainee will take on average two / three modules per annum. The different modules focus on the areas of leadership and professionalism, interpersonal skills and conflict resolution, crisis management, causes and avoidance of errors, stress management and time management as well as the competencies defined under the 8 domains of good professional practice by the Medical Council.

The training is delivered by a combination of didactic teaching and practical work which will involve role playing and small group discussions. Audio visual support is provided. Trainees are encouraged to find solutions to human factor problems for themselves and they are given assignments on which to work between modules. There is emphasis on practical application in the work place and the assignments reflect the importance of work place application. A Human Factors OSCE is taken in BST1 & 2. Attendance at each module as well as passing of the OSCE exam is obligatory in order to complete BST3 and compete for HST4 in Surgical Ophthalmology.

Modules 1-5 are attended during BST1& 2 and modules 6-9 are attended during HST 4, 5, 6 & 7.

The Modules are

1. Talking to patients and relatives
2. Professional Interactions
3. Bystander Intervention Training (online webinar)
4. Managing stress
5. Trauma B: Upper Body Trauma
6. Leadership
7. Safety Management Systems
8. 21st Century Professionalism
9. Advanced Communication: Advocacy & Negotiation

Appendix C: Assessment Framework Documents

A. **Personal Development Plan**
B. **BST Consultant Trainer Report**
C. **CAPA A and B Form for BST**
D. **Workplace Based Assessment sample**

Appendix D: BST Years 1 – 3 Workplace Assessment

BST Years 1-3 Workplace Based Assessment

Workplace-based assessments encompass the assessment of skills, knowledge, behaviour and attitudes during day-to-day ophthalmic practice. Workplace based assessment have a significant impact on learning by providing feedback to trainees regarding the current level of their practice. They also inform the summative assessment at the completion of each 6 month rotation and contribute towards the documentation of the attainment of curricular outcomes which forms an important part of the CAPA process.

BST1a	**1 Surgical WBA:** OSCAR (Modular Phaco 1) **1 Clinical WBA:** Mini CEX (Cataract) or Mini CEX (PVD) **1 Procedural WBA:** DOPS (Fundal) or DOPS (Gonio Glaucoma)
BST1b	**1 Surgical WBA:** OSCAR (Modular Phaco 2) **1 Clinical WBA:** Mini CEX (Cataract) or Mini CEX (PVD) **1 Procedural WBA:** DOPS (Fundal) or DOPS (Gonio Glaucoma)
BST2a	**1 Surgical WBA:** OSCAR (Complete Phaco) **1 Clinical WBA:** Mini CEX (Microbial Keratitis) or Mini CEX (ARMD) **1 Procedural WBA:** OSCAR (Strabismus) or DOPs (Ectropion) or OSCAR (Lateral Tarsal Strip Surgery) or DOPS (Laser pan-retinal photocoagulation PRP)
BST2b	**1 Surgical WBA:** OSCAR (Successive Phaco) **1 Clinical WBA:** Mini CEX (Microbial Keratitis) or Mini CEX (ARMD) **1 Procedural WBA:** OSCAR (Strabismus) or DOPs (Ectropion) or OSCAR (Lateral Tarsal Strip Surgery) or DOPS (Laser pan-retinal photocoagulation PRP)
BST3a	**1 Surgical WBA:** OSCAR (Successive 3 Phaco) **1 Clinical WBA:** Mini CEX (Ocular Motility) **1 Procedural WBA:** OSCAR (Strabismus) or DOPs (Ectropion) or OSCAR (Lateral Tarsal Strip Surgery) or DOPS (Laser pan-retinal photocoagulation PRP)

Appendix E: Compulsory and Recommended Courses & Meetings

Compulsory Courses for Core Training in Ophthalmology BST1 – BST3
Phacoemulsification Skills Bootcamp Course, SVUH
Refraction Course, ICO
Microsurgical Skills Course, ICO/RCSI
Ocular Anaesthetics Course, RVEEH, Dublin
Strabismus Course, University Hospital Waterford
Pathology Course, RVEEH
Anatomy Course, ONLINE
Anterior Vitrectomy & Phacoemulisifaction Course, ICO

Highly Recommended National Meetings / Study days
National Meetings
Royal Academy of Medicine in Ireland (ophthalmic section) - Spring and Winter Meeting
Irish College of Ophthalmologists Annual Meeting (May)
Adare Retinal Meeting - Limerick
Glaucoma Study Day - RVEEH, Dublin
Ocular Pathology – Dr Susan Kennedy, HSE Adelaide Road*
Ocular Trauma / Emergency Ophthalmology Course

Highly Recommended International Meetings
International Refractive Meeting, Dublin - *Prof Michael O Keefe, Mater & Temple St Hospitals*
Royal College of Ophthalmologists Annual Meeting (RCOphth)
EURETINA
American Academy of Ophthalmology (AAO)
Association of Research and Vision in Ophthalmology (ARVO)

Appendix F: Criteria for Certificate of Completion of Basic Training in Surgical Ophthalmology BST1 – BST3

On successful completion of BST1 – BST3 Training, Trainees may be issued with the Certificate of Completion of Basic Training (CCBST)

The criteria for eligibility for the CCBST are as follows:

1. Successful completion of BST1, BST2 and BST3
2. Satisfactory CAPA appraisals for *each* 6 months of the first 3 years
3. Satisfactory achievement of all WBAs at each competency point
4. Successful completion of the MRCSI Examination (FRCOphth Part I, Refraction Exam and MRCSI Part II: Written & Clinical)
5. Successful completion of the Human Factors Modules & OSCE Examination
6. Successful completion of School for Surgeons assignments & Interactive Classroom Attendance
7. Validated procedural logbook to include minimum numbers*
8. Audit as per the BST curriculum (minimum of 4 audits)
9. Documented attendance at obligatory ICO courses & study days

*Minimum numbers

a. 150 intravitreal injections
b. 30 panretinal lasers and 5 macular lasers.
c. 20 YAG capsulotomy lasers, 5 YAG laser PIs
d. 60 minor procedures (S+P, I+C, lesion excision and biopsy etc)
e. Refraction x 60 cases (Adult (30) and Paediatric (30))

Appendix G: Minimum Criteria for Application to HST4

Trainees who are nearing completion of BST and have met the minimum criteria can compete to enter Higher Training in Surgical Ophthalmology.

Entry to the HST4 programme is by competitive interview held centrally at the ICO. The **scorecard** for entry into HST4 is on the ICO website and outlines the allocation of marks for each competency.

Minimum Criteria for application to HST4 Training in Surgical Ophthalmology

1. Successful completion of BST1, BST2, BST3a.
2. Satisfactory CAPA appraisals for BST1, BST2, BST3a.
3. Satisfactory achievement of all WBAs at each competency point
4. Successful completion of the MRCSI Examination
5. Successful completion of the Human Factors OSCEs Examination
6. Successful completion of the School for Surgeons assignments
7. Validated logbook to include minimum number of procedures*
8. Audit as per BST curriculum - minimum requirement of 4.
9. Documented attendance at obligatory ICO courses & study Days.

*Minimum numbers

f. 150 intravitreal injections
g. 30 panretinal lasers and 5 macular lasers.
h. 20 YAG capsulotomy lasers, 5 YAG laser PIs
i. 60 minor procedures (S+P, I+C, lesion excision and biopsy etc)
j. Refraction x 60 cases (Adult (30) and Paediatric (30))

Appendix H: Scorecard for Entry into Training in Surgical Ophthalmology

Marking Scheme for Entry to HST

The components which will be scored for competitive entry into the Higher Surgical Training programme are available below. Minor adjustments can be made to the scorecard and will be highlighted on the SFS website each year.

There will be 2 components:

A. Performance during BST Yr 1-3 scorecard (650 marks)
B. Interview scorecard (350 marks)

The scorecard for performance during BST will be based on scores attained in BST in the following:

- *Workplace Based Assessments 15%*
- *School for Surgeons 5%*
- *Human Factors 10%*
- *Procedural Logbook 15%*
- *MRCSI 15%*
- *Audit 4%*
- *Prizes 1%*

A. Basic Surgical Training 65% (650 marks)

Clinical Performance
Workplace Based Assessments: (15%)

Each candidate is required to submit Workplace Based Assessment (WBA) forms over the first five semesters of Basic Surgical Training (ST1A, ST1B, ST2A, ST2B, ST3A). These WBA forms and their scoring allocation are outlined below. A minimum score of 50% must be achieved on each individual WBA.

Phaco (5%)
(1% per assessment)
ST1A Phaco 1
ST1B Phaco 2
ST2A Complete Phaco
ST2B Successive Phaco 2
ST3A Successive Phaco 3
DOPS Sx (3%)
(1% per assessment)
1 Strabismus
2 LTS (Lateral Tarsal Strip Surgery) or ECT (Ectropion)
3 PRP (Laser pan-retinal photocoagulation)

DOPS Clinical (2%)
(1% per WBA)
1 Gonio / GAT Glaucoma Skills
2 Fundal Skills

Mini-Cex (5%)
(1% per WBA)
1 PVD (Posterior Vitreous Detachment)
2 Cataract
3 ARMD (wet)
4 MK (Microbial Keratitis)
5 EOM (Ocular Motility)

It will be the responsibility of the candidate to ensure that all WBA forms are submitted to the Training Manager and Dean of the ICO by the deadline in each semester.

Audit (4%)
Audits must be described as open, closed or pilot, with clear details of the relevant intervention and the international / national standard or benchmark where appropriate. 0.5% is awarded for each individual part of an audit cycle, up to a maximum of 4%. If an audit has been published, candidates must ensure to include the audit in both the audit section and the publication section. Marks will not be awarded for an audit if it is only listed in the publications section of the application form. There is a minimum requirement of 4 audits.

School for Surgeons (5%)
Cumulative scores for completed school for surgeons completed assignments / MCQs are assigned per semester up to a maximum of 5% e.g. 100% school for surgeons score awarded in semester ST1A gets 1%, 50% score is awarded 0.5% etc. A minimum score of 60% must be achieved in each semester. Any submitted assignment may be subsequently utilised for discussion during a candidate's interview at the Decision Making in Surgery station.

(1% per semester)
ST1A Assignments and MCQ
ST1B Assignments and MCQ
ST2A Assignments and MCQ
ST2B Assignments and MCQ
ST3A Assignments and MCQ

Human Factors (10%)
Cumulative scores for attendance at Human Factors modules and completion of yearly OSCE should be assigned per training year (ST1 and ST2) up to a maximum of 10%. A minimum pass score (usually 50% but set each year by RCSI) must be achieved at the ST1 and ST2 OSCE.
(5% per training year)
ST1 Attendance & OSCE
ST2 Attendance & OSCE

Consolidated Logbook (15%)
Candidates will be required to submit a validated consolidated logbook. Candidates should note that submission of false or misleading information on their consolidated logbook sheet will lead to automatic disqualification from the ST selection process. Within each specialty, two nominated persons will assess and score all of the submitted consolidated logbooks and will compile a report for the shortlisting committee.

The 15% allocated for the consolidated logbook is made up of two parts:

10%	Phaco Surgery	5% for Min. 100 Phacos 5% for 100-200 Phacos with marks stratified
5%	Other Surgery	Min. 5 Major lids, Strabismus, Lasers Min. of 30 Minor Procedures No minimum of other Intraocular/ Ant Segment

5. MRCSI (15%)
Marks for the MRCSI Exam are awarded based on performance of the Part A Written exam and the Part B Clinical exam as below:

2.5% Part A Written
12.5% Part B Clinical

A minimum score of 50% must be achieved in the written and the clinical.

*For Part A Written - The allocated marks for each part of the exam may alter slightly from year to year. Candidates will be informed in advance.

Prizes and Grants for Research (1%)
The maximum score under this section is 1%. A mark of 0.5% to 1% may be awarded for international research prizes or grants depending on nature of prize. A mark of 0.25% to 0.5% may be awarded for national research prizes or grants depending on nature of prize. A mark of 0.125% may be awarded for School for Surgeons prizes.

SFS 0.125%
Nat: 0.25% – 0.5% (depending on nature of prize)
Intl: 0.5% – 1.0% (depending on nature of prize)

Marks for research grants will only be given for grants awarded by a recognised research funding body to actually conduct research (eg Health Research Board grants) and will not be awarded for travelling fellowships (unless such fellowships specifically include funding to conduct research abroad) or for industry sponsored grants.

Marks in this section may be cumulative, up to a maximum of 1%. Candidates must provide details about the prize/award to be eligible for marks.

B. Pre-scoring of Commitment to Academic Advancement & Life-long Learning - Academic Section 5% (50 marks)

A maximum of 5% may be awarded in this section. It is theoretically possible for candidates to accumulate more than 5% based on thesis, publications and presentations but the maximum mark which may be awarded stands at 5%.

The cut-off date for the award of marks in this section will be the date of shortlisting. Under no circumstances will marks be given after that date based on accepted thesis, publications or presentations.

Marks are only awarded for degrees or diplomas which are awarded by universities or educational establishments recognised by the Irish Medical Council or by the Royal College of Surgeons in Ireland. Marks are not awarded for any degree which is obtained prior to commencement of undergraduate medical school. Likewise, marks are not awarded for any degree obtained as a matter of course during medical school or prior to commencement of Basic Surgical Training. Therefore higher degrees will only be accepted if they were carried out during Basic Surgical Training i.e. After the official date of entry into Basic Training in Surgical Ophthalmology.

Marks in this section are not cumulative, and candidates will only be credited for the highest scoring degree. For example, if a candidate has an MD degree (3.25%) and also a surgically relevant MSc degree (2%) their total score in this section will be 3.25%.

Higher Degree by Thesis
Awarded:
PhD 3.75%
MD 3.25%
Mch 2.25%
MMedSc / other Masters 2%
Online Masters (theory only): 1.5%
Submitted with verification: 1.25%

Candidates who have completed a Thesis must submit a summary of the Thesis with the application process. Candidates who have been awarded a Higher Degree by Thesis through a non-Irish University must produce sufficient documentation to satisfy the Shortlisting Committee that their Thesis is equivalent to a Thesis which would be submitted to an Irish University.

Relevant Diplomas
A mark of up to 0.50% may be awarded for surgically relevant diplomas.

Marks are only awarded for diplomas which are awarded by universities or educational establishments recognised by the Irish Medical Council or by the Royal College of Surgeons in Ireland. Marks are not awarded for any diploma which is obtained prior to commencement

of undergraduate medical school. Likewise, marks are not awarded for any diploma obtained as a matter of course during medical school or prior to commencement of Basic Surgical Training.

Marks in this section are not cumulative, and candidates will only be credited for the highest scoring degree. For example, if a candidate has an MD degree (3.25%) and also a surgically relevant MSc degree (2%) their total score in this section will be 3.25%.

Publications
Publications and presentations will only be accepted if they were carried out during Basic Surgical Training i.e. After the official date of entry into Basic Training in Surgical Ophthalmology.

A candidate may submit any number of publications for consideration for scoring. However, the maximum mark of 5% for this entire section stands. Only publications in peer reviewed scientific journals will be considered. The marks allocated will be based on the impact factor of the journal as follows:

Impact factor < 1 = 0.25
Impact factor ≥ 1 = 0.5
Impact factor > 2 = 1.0
Impact factor > 3 = 1.5
Impact factor > 5 = 2.0

The full mark described above will be awarded for first author or senior author; one half of that mark will be awarded for second author. All publications for consideration must have a PMID number submitted with the application. If the publication is not yet on PubMed, there must be a letter of acceptance from the editor of the journal submitted with the application.

Book Chapters:	0.5%-1% depending on the publication - First Author (Must include ISBN number of book)
Invited Review Articles:	0.5%-1% depending on the journal
Case Reports:	0.25% (Irrespective of the impact factor of the journal)

Candidates may not be rewarded twice for a presentation which is published automatically because it has been presented at a surgical meeting. No points will be awarded for abstracts.

Presentations
A candidate may submit any number of presentations for consideration for scoring. However, the maximum mark of 5% for this entire section stands. Presentation at a national meeting will receive a mark of 0.25% and presentation at an international meeting will receive a mark of 0.50% - irrespective of whether it is a Poster or Case Report. Marks are only awarded if the candidate has actually made the presentation at the meeting. No marks are awarded for being a co-author of a presentation.

C. Interview 30% (300 marks)

The interview is the final stage of the selection process for Specialty Training. The interview will follow a Multiple Mini Interview (MMI) format. The overall purpose of the interview is to assess the general suitability of each candidate for progression to Specialty Training. The interview process is designed to capture elements of suitability, which have not previously been assessed in performance during Basic Surgical Training or in the MRCS examination.

The MMI format will be used to give a comprehensive assessment of a wider range of general suitability characteristics. A minimum score of 60% must be achieved.

Interviews will be conducted by a properly constituted interview panel, according to the Irish Surgical Postgraduate Training Committee (ISTPC). The interview panel may only award marks for the interview and may not under any circumstances change marks already allocated to other sections at the shortlisting meeting. All documents relating to the selection process will remain in the possession of ISPTC / RCSI. A maximum global mark of 30% may be awarded at interview.

The interview will cover a broad range of areas related to suitability for Specialty Training. These can be grouped under five principal headings:

1. Quality and Safety in Surgical Healthcare (70 Marks)

Purpose: The purpose of this station is to assess the candidate's awareness and commitment to quality and safety issues in the provision of surgical care.

Indicative Content: Audit. Incident reporting systems. Risk registers / risk management systems. Medical and surgical error. Clinical governance. Continuous Quality Improvement. MDT meetings. Surgical "handovers".

2. Commitment to Academic Advancement and Lifelong Learning (20 Marks + 50 Marks from Pre-Scoring)

Purpose: The purpose of this station is to assess the candidate's commitment to maintaining up to date knowledge and professional competence.

Indicative Content: Review of surgical portfolio. Attendance at relevant meetings and courses. Presentations and publications. Teaching activities. Involvement in clinical research.

3. Knowledge of Current Issues Relevant to Surgical Practice (70 Marks)

Purpose: The purpose of this station is to assess the candidate's knowledge and awareness of issues (other than surgical knowledge and technical skill) which may impact on delivery of good surgical care.

Indicative Content: The Clinical Programmes (Acute Surgery Programme / Elective Surgery Programme). Hospital networks. Universal Health Insurance. European Working Time Directive / shift working.

4. Decision Making in Surgery (70 Marks)

Purpose: The purpose of this station is to assess the candidate's ability to utilise knowledge and skills in making sound clinical judgements for patient management relevant to the specialty in question.
Indicative Content: 2/3 Clinical Scenarios, 3-4 minutes each.

5. Professionalism and Probity in Surgical Practice (70 Marks)
Purpose: The purpose of this station is to assess the candidate's awareness and commitment to professional and ethical behaviour in surgical practice.
Indicative Content: Regulation of the medical profession (Medical Council / Fitness to Practice process). Ethical behaviour for doctors. Patient advocacy. Disclosure of error. Clinical research ethics. Introduction of new technology to surgical practice. Data protection.

Each interviewer will mark each candidate at the end of each interview by silent voting. The mark sheets for each candidate will then be collected and the marks awarded by each interviewer will be displayed at the end of the interview process. Any significant discrepancies in marking will be discussed by the Chairman. A list of suggested questions for the various topics of the interview will be presented to the interview panel. However, these questions are simply for assistance to interviewers and are not mandatory questions. Interviewers are free to ask any questions they like related to the headings to be marked.

At the end of the selection process, the marks obtained in each section will be added together to give the total mark in the selection process. Candidates will then be ranked and will be appointed according to their rank and the number of positions available. A second chance option is available for candidates who do not proceed to HST on their first attempt.

Appendix I: Quality Indicators (QI) and standards for Basic Training in Surgical Ophthalmology BST1-3

Section 1: Generic Standards for Ophthalmic Training Posts

QI	Criteria
QI 1	Trainees should be allocated to ICO approved posts commensurate with their phase of training and appropriate to the educational opportunities available in that post (particular consideration should be given to the needs of less-than-full-time trainees). Due consideration should be given to individual training requirements to minimise competition for educational and training opportunities.
QI 2	Trainees should be assigned to at least one Consultant Trainer. Additionally, each training unit must have an assigned Educational Supervisor. **All consultant trainers must meet the eligibility criteria as outlined in the ICO Code for Ophthalmic Trainers.*
QI 3	On commencement of each post, a Personal Development Plan should be agreed and put in place between the trainer and the trainee which clearly outlines the goals, expectations and training commitments of that rotation. The Development Plan should be submitted to the ICO and will be reviewed against progress at the end of rotation CAPA. Trainers should monitor a trainee's progress throughout their rotation and provide appropriate feedback.
QI 4	Each scheduled session should provide explicit training opportunities with trainees undertaking ophthalmic work which is appropriate to their level of training. They should not be required to undertake duties normally performed by interns.
QI 5	There should be enough clinical work in the unit to support the number of trainees working there and provide experience in a broad range of conditions and procedures.
QI 6	Trainees should have exposure to an appropriate caseload (6-10 pts per session for basic, 10-12 for higher) and case mix to meet the needs of their programme curriculum.
QI 7	Trainees should have the opportunity to perform the prescribed procedures to a specified level as defined by their programme curriculum.
QI 8	Trainees should have easy access to educational facilities, including library and IT resources, for personal study, audit and research and their timetables should include protected time to allow for this (RSTA).
QI 9	Trainees should be able to access study leave ("curriculum delivery") with expenses or funding appropriate to their specialty and personal progression through their phase of training.
QI 10	Trainees should not miss training opportunities due to providing cover for absent colleagues or filling rota gaps.
QI 11	There should be an appropriate on-call ratio which takes account of the capabilities of trainees and which reflects the volume of all on-call activity in the unit.
QI 12	At least 2 hours of facilitated formal on-site teaching should take place each week.
QI 13	Trainees should have the opportunity to give formal teaching sessions/tutorials (e.g. to medical students, interns, nurses etc) and actively participate in administrative activity (e.g. arranging rotas, theatre lists, dictating GP letters, discharge summaries). Appropriate support and feedback should be given from consultant trainers.
QI 14	Trainees should have a protected RSTA session once per week to support study, audit and research. Trainees should attend and participate in 4-monthly audit meetings.
QI 15	There will be an explicit commitment to promoting professional attitudes and behaviour among trainers and trainees, including promotion of the current Guide to Professional Conduct and Ethics for Registered Medical Practitioners ('Ethical Guide') published by the Medical Council.

QI 16	The site will promote good professional practice by all staff, which is centered on patient safety and quality of care.
QI 17	There will be an explicit commitment, and accompanying policies and procedures, to address any instances of unprofessionalism at a local level.

Section 2: Minimum Standards for Basic Surgical Training (BST)

QI	Criteria
QI 18	Trainees should have a timetable in keeping with the criteria as laid out in the Curriculum. This should include at least 2 theatre sessions, at least two consultant-led specialty clinics, at least one consultant-led general clinic and at least one EED session, per week. They should have a dedicated 'minor ops' and laser list under appropriate supervision (Consultant or HST) at least alternate weeks and at least one injection list per month.
QI 19	Trainees must have the opportunity to complete the Workplace Based Assessments (WBAs) required by their curriculum, with an appropriate degree of reflection and feedback.
QI 20	During their allocated theatre sessions, trainees should receive appropriate tuition on surgical techniques from the consultant trainer/SpR during every attended theatre session. They should have the opportunity to perform procedures / part procedures under supervision and receive structured feedback on surgical performance.
QI 21	During their allocated theatre sessions, trainees should write operative notes on their own cases and receive proximate feedback from their consultant trainer on their operative notes.
QI 22	During their OPD and EED sessions, trainees should see an appropriate caseload (6-10 pts per session) and an appropriate case mix of "new" patients and "return" patients.
QI 23	Trainees should have appropriately supervised responsibility for the assessment for both elective and emergency patients.
QI 24	Trainees should have the opportunity to "follow through" (i.e. go to theatre) on emergency surgery patients.
QI 25	At least 2 hours of facilitated formal on-site teaching should take place each week and trainees should attend and participate in onsite teaching at least once per week.
QI 26	Trainees should present cases at weekly teaching at least two times in each six month rotation and receive proximate structured feedback from the consultant trainer on cases presented.
QI 27	Trainees should have the opportunity to perform at least 4 audits throughout BST.
QI 28	Trainees should attend and participate in 4-monthly Audit meetings.
QI 29	Trainees should attend and actively participate in multi-disciplinary team (MDT) and specialist meetings.
QI 30	Trainees should have the opportunity & encouragement to participate in clinical research projects.
QI 31	Trainees should receive feedback from the Consultant Trainer on clinical research projects
QI 32	Trainees should write up and publish results of clinical research projects.
QI 33	Trainees should participate in the departmental Journal Club.