The Intercollegiate Surgical Curriculum

Educating the surgeons of the future

Otolaryngology

From October 2013

Including Simulation

(Updated 2015)

ISCP INTERCOLLEGIATE SURGICAL CURRICULUM PROGRAMME

Approved 22 July 2015, for implementation in August 2016

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This document was updated in 2015 to include changes to the Core modules and amended text to reflect the adoption of the ISCP by the Royal College of Surgeons in Ireland.

Curriculum Overview

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Introduction

The intercollegiate surgical curriculum provides the approved UK framework for surgical training from completion of the foundation years through to consultant level. In the Republic of Ireland it applies from the completion of Core Surgical Training through to consultant level. It achieves this through a syllabus that lays down the standards of specialty-based knowledge, clinical judgement, technical and operative skills and professional skills and behaviour, which must be acquired at each stage in order to progress. The curriculum is web based and is accessed through www.iscp.ac.uk.

The website contains the most up to date version of the curriculum for each of the ten surgical specialties, namely: Cardiothoracic Surgery; General Surgery; Neurosurgery; Oral and Maxillofacial Surgery (OMFS); Otolaryngology (ENT); Paediatric Surgery; Plastic Surgery; Trauma and Orthopaedic Surgery (T&O); Urology and Vascular Surgery. They all share many aspects of the early years of surgical training, but naturally diverge further as training in each discipline becomes more advanced. Each syllabus will emphasise the commonalities and elucidate in detail the discrete requirements for training in the different specialties.

Doctors who will become surgical trainees

After graduating from medical school doctors move onto a mandatory two-year foundation programme in clinical practice (in the UK) or a one year Internship (in the Republic of Ireland). During their final year of medical school students are encouraged to identify the area of medicine they wish to pursue into specialty training. During the Foundation programme or Internship, recently qualified doctors are under close supervision whilst gaining a wide range of clinical experience and attaining a range of defined competences. Entry into surgery is by open competition and requires applicants to understand, and provide evidence for their suitability to become members of the surgical profession.

Selection into a surgical discipline

The responsibility for setting the curriculum standards for surgery rests with the Royal Colleges of Surgeons which operate through the Joint Committee on Surgical Training (JCST) and its ten Specialty Advisory Committees (SACs) and Core Surgical Training Committee (CSTC). In the UK, each SAC has developed the person specifications for selection into its specialty and the person specification for entry to ST1/CT1 in any discipline. Postgraduate Medical Deaneries and/or Local Education and Training Boards (LETBs) and their Schools of Surgery are responsible for running training programmes, which are approved by the UK's General Medical Council (GMC), and for aiding the SACs in the recruitment and selection to all levels of pre-Certification training. In the Republic of Ireland, these roles are undertaken by the Royal College of Surgeons in Ireland (RCSI) and by Ireland's Medical Council of Ireland (MCoI).

The critical selection points for surgical training are at initial entry either directly into specialty training in the chosen discipline (ST1) or into a generic training period referred to as core training (CT1). Those who enter core training are then selected into the discipline of their choice after two core years and join the specialty programme at a key competency point (ST3) after which transfer from one discipline to another would be relatively unusual. Selection at both core and higher surgical training takes place via a national selection process overseen by the Deaneries/LETBs and JCST and, in the Republic of Ireland, by the RCSI.

Those who are selected into training programmes will then have to achieve agreed milestones in terms of College examinations and the Annual Review of Competence Progression (ARCP) requirements.

Guidance about the UK recruitment process, application dates and deadlines and links to national person specifications by specialty are available from the Specialty Training website here. The RCSI provides this information for Ireland.

Educational Principles of the Curriculum

The provision of excellent care for the surgical patient, delivered safely, is at the heart of the curriculum.

The aims of the curriculum are to ensure the highest standards of surgical practice in the UK and the Republic of Ireland by delivering high quality surgical training and to provide a programme of training from the completion of the foundation years through to the completion of specialty surgical training, culminating in the award of a CCT/CESR-CP[1]/CCST. The curriculum was founded on the following key principles which support the achievement of these aims:

- A common format and similar framework across all the specialties within surgery.
- Systematic progression from the end of the foundation years through to completion of surgical specialty training.
- Curriculum standards that are underpinned by robust assessment processes, both of which conform to the standards specified by the GMC/RCSI.
- Regulation of progression through training by the achievement of outcomes that are specified within the specialty curricula. These outcomes are competence-based rather than time-based.
- Delivery of the curriculum by surgeons who are appropriately qualified to deliver surgical training.
- Formulation and delivery of surgical care by surgeons working in a multidisciplinary environment.
- Collaboration with those charged with delivering health services and training at all levels.

The curriculum is broad based and blueprinted to the GMC's Good Medical Practice and RCS England's (on behalf of all four Royal Colleges in the UK and the Republic of Ireland) Good Surgical Practice frameworks to ensure that surgeons completing the training programme are more than just technical experts.

Equality and diversity are integral to the rationale of the curriculum and underpin the professional behaviour and leadership skills syllabus. The ISCP encourages a diverse surgical workforce and therefore encourages policies and practices that:

- ensure that every individual is treated with dignity and respect irrespective of their age, disability, race, religion, sex, sexual orientation or marital status, or whether they have undergone gender reassignment or are pregnant.
- promote equal opportunities and diversity in training and the development of a workplace environment in which colleagues, patients and their carers are treated fairly and are free from harassment and discrimination.

It is expected that these values will be realised through each individual hospital trust's equality and diversity management policies and procedures. This principle also underlies the Professional Behaviour and Leadership syllabus.

Who Should Use the Curriculum?

The ISCP comprises the curricula for the ten surgical specialties which are GMC-approved in the UK and MCoI-approved in the Republic of Ireland. It reflects the most up to date requirements for trainees who are working towards a UK Certificate of Completion of Training (CCT), a UK Certificate of Eligibility for Specialist Registration via the Combined Programme (CESR-CP) or, in the Republic of Ireland, a Certificate of Completion of Specialist Training (CCST). Where an older version of the curriculum is superseded, trainees will be expected to transfer to the most recent version in the interests of patient safety and educational quality.

The GMC's position statement on moving to the most up to date curriculum is here.

The curriculum is appropriate for trainees preparing to practice as consultant surgeons in the UK and the Republic of Ireland. It guides and supports training for a UK Certificate of Completion of Training (CCT), a UK Certificate of Eligibility for Specialist Registration via the Combined Programme (CESR-CP) or, in the Republic of Ireland, Certificate of Completion of Specialist Training (CCST) in a surgical specialty. The curriculum enables trainees to develop as generalists within their chosen surgical specialty, to be able to deliver an on-call emergency service and to deliver more specialised services to a defined level.

A CCT/CESR-CP/CCST can only be awarded to trainees who have completed a fully- or part-approved specialty training programme. Doctors applying for a full Certificate of Eligibility for Specialist Registration (CESR) will be required to demonstrate that they meet the standards required for a CCT/CESR-CP/CCST as set out in the most up to date curriculum at the time of application.

Components of the Curriculum

The surgical curriculum has been designed around four broad areas, which are common to all the surgical specialties:

- **Syllabus** - what trainees are expected to know, and be able to do, in the various stages of their training
- **Teaching and learning** - how the content is communicated and developed, including the methods by which trainees are supervised
- **Assessment and feedback** - how the attainment of outcomes are measured/judged with formative feedback to support learning
- **Training systems and resources** - how the educational programme is organised, recorded and quality assured

In order to promote high quality and safe care of surgical patients, the curriculum specifies the parameters of knowledge, clinical skills, technical skills, professional behaviour and leadership skills that are considered necessary to ensure patient safety throughout the training process and specifically at the end of training. The curriculum therefore provides the framework for surgeons to develop their skills and judgement and a commitment to lifelong learning in line with the service they provide.

Length of training

A similar framework of stages and levels is used by all the specialties. Trainees progress through the curriculum by demonstrating competence to the required standard for the stage of training. Within this framework each specialty has defined its structure and indicative length of training.

Each individual specialty syllabus provides details of how the curriculum is shaped to the stages of training.

In general terms, by the end of training, surgeons have to demonstrate:

- Theoretical and practical knowledge related to surgery in general and to their specialty practice;
- Technical and operative skills;
- Clinical skills and judgement;
- Generic professional and leadership skills;
- An understanding of the values that underpin the profession of surgery and the responsibilities that come with being a member of the profession;
- The special attributes needed to be a surgeon;
- A commitment to their on-going personal and professional development and practice using reflective practice and other educational processes;
- An understanding and respect for the multi-professional nature of healthcare and their role in it; and
- An understanding of the responsibilities of being an employee in the UK and/or Republic of Ireland health systems and/or a private practitioner.

In the final stage of training, when the trainee has attained the knowledge and skills required for the essential aspects of the curriculum in their chosen specialty, there will be the opportunity to extend his/her skills and competences in one or two specific fields. The final stage of the syllabus covers the major areas of specialised practice. The syllabuses are intended to allow the future CCT/CESR-CP/CCST holder to develop a particular area of clinical interest and expertise prior to appointment to a consultant post. Some will require further post-certification training in order to achieve the competences necessary for some of the rarer complex procedures. In some specialties, interface posts provide this training in complex areas pre-certification.

Acting up as a consultant (AUC)

'Acting up' under supervision provides final year trainees with experience to help them make the transition from trainee to consultant. A period of acting up offers trainees an opportunity to get a feel for the consultant role while still being under a level of supervision.

The post must be defined as acting up for an absent consultant, and cannot be used to fill a new locum consultant post or to fill service needs.

The trainee acting up will be carrying out a consultant's tasks but with the understanding that they will have a named supervisor at the hosting hospital and that the designated supervisor will always be available for support, including out of hours or during on-call work.

Specialty Advisory Committee (SAC) support is required and must be sought prospectively through an application to the JCST. Further GMC prospective approval is not required unless the acting up post is outside the home Deanery/LETB. If accepted the AUC will be able to count towards the award of a CCT/CESR-CP/CSD. Trainees will need to follow the JCST guidance which can be found on the JCST website.

Educational Framework

The educational framework is built on three key foundations that are interlinked:

- Stages in the development of competent practice
- Standards in the areas of specialty-based knowledge, clinical judgement, technical and operative skills, and professional behaviour and leadership
- Framework for Appraisal, Feedback and Assessment

Stages of training

The modular surgical curriculum framework has been designed to define stages in the development of competent surgical practice, with each stage underpinned by explicit outcome standards. This provides a means of charting progress through the various stages of surgical training in the domains of specialty-based knowledge, clinical and technical skills and professional behaviour and leadership (including judgement).

Each surgical specialty has adapted this approach to reflect their training pathway. Therefore, although the educational concept is the same for all specialties the composition of the stages will differ.

UK Only

The core (or initial stage for run-through training) reflects the early years of surgical training and the need for surgeons to gain competence in a range of knowledge and skills many of which will not be specialty-specific. A syllabus, which is common to all the surgical specialties (the common component of the syllabus, which is founded in the applied surgical sciences) has been written for this stage. This is supplemented by the topics from the appropriate surgical specialty syllabus as defined in each training programme (the specialty-specific component of the syllabus).

UK and Republic of Ireland

During the intermediate and final stages the scope of specialty practice increases with the expansion in case mix and case load and this is accompanied by the need for greater depth of knowledge and increasing skills and judgement. The content is therefore based on progression, increasing in both depth and complexity through to the completion of training.

Standards of training

Surgeons 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 against which they are judged. These values and standards are laid down in the General Medical Council's Good Medical Practice in the UK and the Republic of Ireland Medical Council's Guide to Professional Conduct and Ethics.

The Professional Behaviour and Leadership Skills syllabus is mapped to the Leadership framework as laid out by the Academy of Medical Royal Colleges and derived from Good Medical Practice. The Professional Behaviour and Leadership skills section of the syllabus is common to all surgical specialties and is based on Good Medical Practice.

The syllabus lays down the standards of specialty-based knowledge, clinical judgement, technical and operative skills and professional skills and behaviour that must be acquired at each stage in order to progress. The syllabus comprises the following components:

- A specialty overview which describes the following:
    - Details of the specialty as it practised in the UK and the Republic of Ireland
    - The scope of practice within the specialty
    - The key topics that a trainee will cover by the end of training
    - An overview of how, in general terms, training is shaped
- Key topics that all trainees will cover by certification and will be able to manage independently, including complications. These are also referred to as essential topics.
- Index procedures that refer to some of the more commonly performed clinical interventions and operations in the specialty. They represent evidence of technical competence across the whole range of specialty procedures in supervised settings, ensuring that the required elements of specialty practice are acquired and adequately assessed. Direct Observations of Procedural Skills (DOPS) and Procedure-based Assessments (PBAs) assess trainees carrying out index procedures (whole procedures or specific sections) to evidence learning.
- The stages of training, which comprise a number of topics to be completed during a notional period of training. Within each stage there is the syllabus content which contains the specialty topics that must be covered. Each of these topics includes one or more learning objectives and the level of performance / competence to be achieved at completion in the domains of:
    - Specialty-based knowledge
    - Clinical skills and judgement
    - Technical and operative skills

Standards for depth of knowledge during early years surgical training (UK only)

In the early years of training, the appropriate depth and level of knowledge required can be found in exemplar texts tabulated below. We expect trainees to gain knowledge from these texts in the context of surgical practice defined in the core surgical component of the curriculum above.

The curriculum requires a professional approach from surgical trainees who will be expected to have a deep understanding of the subjects, to the minimum standard laid out below. It is expected that trainees will read beyond the texts below and will be able to make critical use, where appropriate of original literature and peer scrutinised review articles in the related scientific and clinical literature such that they can aspire to an excellent standard in surgical practice.

The texts are not recommended as the sole source within their subject matter and there are alternative textbooks and web information that may better suit an individual's learning style. Over time it will be important for associated curriculum management systems to provide an expanded and critically reviewed list of supporting educational material.

Topic	Possible textbooks or other educational sources
Anatomy	Last's Anatomy: Regional and Applied (MRCS Study Guides) by R.J. Last and Chummy Sinnatamby Netter's Atlas of Human Anatomy 4th Edition Saunders-Elsevier ISBN-13-978-1-4160-3385-1
Physiology	Ganong's Review of Medical Physiology, 23rd Edition (Lange Basic Science)
Pathology	Robbins Basic Pathology by Vinay Kumar MBBS MD FRCPath, Abul K. Abbas MBBS, Nelson Fausto MD, and Richard Mitchell MD PhD
Pharmacology	Principles and Practice of Surgery by O. James Garden MB ChB

	MD FRCS(Glasgow) FRCS(Edinburgh) FRCP (Edinburgh) FRACS(Hon) FRCSC(Hon) Professor, Andrew W. Bradbury BSc MBChB MD MBA FRCSEd Professor, John L. R. Forsythe MD FRCS(Ed) FRCS, and Rowan W Parks Bailey and Love's Short Practice of Surgery 25th Edition by Norman S. Williams (Editor), Christopher J.K. Bulstrode (Editor), P. Ronan O'Connell (Editor)
Microbiology	Principles and Practice of Surgery by O. James Garden MB ChB MD FRCS(Glasgow) FRCS(Edinburgh) FRCP (Edinburgh) FRACS(Hon) FRCSC(Hon) Professor Bailey and Love's Short Practice of Surgery 25th Edition by Norman S. Williams (Editor), Christopher J.K. Bulstrode (Editor), P. Ronan O'Connell (Editor)
Radiology	Principles and Practice of Surgery by O. James Garden MB ChB MD FRCS(Glasgow) FRCS(Edinburgh) FRCP (Edinburgh) FRACS(Hon) FRCSC(Hon) Professor, Andrew W. Bradbury BSc MBChB MD MBA FRCSEd Professor, John L. R. Forsythe MD FRCS(Ed) FRCS, and Rowan W Parks Grainger & Allison's Diagnostic Radiology, 5th Edition. Andy Adam (Editor), Adrian Dixon (Editor), Ronald Grainger (Editor), David Allison (Editor) Bailey and Love's Short Practice of Surgery 25th Edition by Norman S. Williams (Editor), Christopher J.K. Bulstrode (Editor), P. Ronan O'Connell (Editor)
Common surgical conditions	Principles and Practice of Surgery by O. James Garden MB ChB MD FRCS(Glasgow) FRCS(Edinburgh) FRCP (Edinburgh) FRACS(Hon) FRCSC(Hon) Professor, Andrew W. Bradbury BSc MBChB MD MBA FRCSEd Professor, John L. R. Forsythe MD FRCS(Ed) FRCS, and Rowan W Parks Bailey and Love's Short Practice of Surgery 25th Edition by Norman S. Williams (Editor), Christopher J.K. Bulstrode (Editor), P. Ronan O'Connell (Editor)
Surgical skills	Basic surgical skills course and curriculum
Peri-operative care including critical care	ATLS® course CCrISP course Principles and Practice of Surgery by O. James Garden MB ChB MD FRCS(Glasgow) FRCS(Edinburgh) FRCP (Edinburgh) FRACS(Hon) FRCSC(Hon) Professor, Andrew W. Bradbury BSc MBChB MD MBA FRCSEd Professor, John L. R. Forsythe MD FRCS(Ed) FRCS, and Rowan W Parks Bailey and Love's Short Practice of Surgery 25th Edition by Norman S. Williams (Editor), Christopher J.K. Bulstrode (Editor), P. Ronan O'Connell (Editor)
Surgical care of children	Principles and Practice of Surgery by O. James Garden MB ChB MD FRCS(Glasgow) FRCS(Edinburgh) FRCP (Edinburgh)

	FRACS(Hon) FRCSC(Hon) Professor, Andrew W. Bradbury BSc MBChB MD MBA FRCSEd Professor, John L. R. Forsythe MD FRCS(Ed) FRCS, and Rowan W Parks Bailey and Love's Short Practice of Surgery 25th Edition by Norman S. Williams (Editor), Christopher J.K. Bulstrode (Editor), P. Ronan O'Connell (Editor) Jones Clinical Paediatric Surgery Diagnosis and Management Editors JM Hutson, M O'Brien, AA Woodward, SW Beasley 6th Edition 2008 Melbourne Blackwell Paediatric Surgery: Essentials of Paediatric urology by D Thomas, A Rickwood, P Duffy
Care of the dying	Principles and Practice of Surgery by O. James Garden MB ChB MD FRCS(Glasgow) FRCS(Edinburgh) FRCP (Edinburgh) FRACS(Hon) FRCSC(Hon) Professor, Andrew W. Bradbury BSc MBChB MD MBA FRCSEd Professor, John L. R. Forsythe MD FRCS(Ed) FRCS, and Rowan W Parks Bailey and Love's Short Practice of Surgery 25th Edition by Norman S. Williams (Editor), Christopher J.K. Bulstrode (Editor), P. Ronan O'Connell (Editor)
Organ transplantation	Principles and Practice of Surgery by O. James Garden MB ChB MD FRCS(Glasgow) FRCS(Edinburgh) FRCP (Edinburgh) FRACS(Hon) FRCSC(Hon) Professor, Andrew W. Bradbury BSc MBChB MD MBA FRCSEd Professor, John L. R. Forsythe MD FRCS(Ed) FRCS, and Rowan W Parks Bailey and Love's Short Practice of Surgery 25th Edition by Norman S. Williams (Editor), Christopher J.K. Bulstrode (Editor), P. Ronan O'Connell (Editor)

In addition to these standard texts, sample MRCS MCQ examination questions are also available at www.intercollegiatemrcs.org.uk, which will demonstrate the level of knowledge required to be able to successfully pass the MRCS examination.

Standards for depth of knowledge during intermediate and final years surgical training

In the intermediate and final stages of surgical training the following methodology is used to define the relevant depth of knowledge required of the surgical trainee. Each topic within a stage has a competence level ascribed to it for knowledge 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

Standards for clinical and technical skills

The practical application of knowledge is evidenced through clinical and technical skills. Each topic within a stage has a competence level ascribed to it in the areas of clinical and technical skills ranging from 1 to 4:

1. Has observed

Exit descriptor; at this level the trainee:

- Has adequate knowledge of the steps through direct observation.
- Demonstrates that he/she can handle instruments relevant to the procedure appropriately and safely.
- Can perform some parts of the procedure with reasonable fluency.

2. Can do with assistance

Exit 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 from 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

Exit 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 scrub.

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 UK consultant surgeon to function.
- Is capable of supervising trainees.

The explicit standards form the basis for:

- Specifying the syllabus content;
- Organising workplace (on-the-job) training in terms of appropriate case mix and case load;
- Providing the basis for identifying relevant teaching and learning opportunities that are needed to support trainees' development at each particular stage of progress; and

- Informing competence-based assessment to provide evidence of what trainees know and can do.

Standards for the professional skills and leadership syllabus

The methodology used to define the standards for this component of the syllabus is through a series of descriptors that indicate the sorts of activities that trainees should be able to successfully undertake at two specific time points, namely the end of “early years” training (i.e. entry into ST3, or ST4 in Neurosurgery) and the end of surgical training (i.e. certification).

The Framework for Appraisal, Feedback and Assessment

The curriculum is consistent with the four domains of Good Medical Practice:

- Knowledge, skills and performance
- Safety and quality
- Communication, partnership and team-working
- Maintaining trust

The knowledge, skills and performance aspects are primarily found within the specialty-specific syllabus. All domains are reflected within the professional behaviour and leadership syllabus, which also reflect the Academy’s common competence and leadership competence frameworks.

The purpose and structure of the training programme

The curriculum is competence-based. 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. Since it is competence-based, it is not time-defined and accordingly it allows these competences to be acquired in different time frames according to variables such as the structure of the programme and the ability of the trainee. Any time points used are therefore merely indicative.

There are certain milestones or competence points which allow trainees to benchmark their progress:

- Entry to surgical training - CT1 (or ST1 for those specialties or localities with run-through programmes)
- Entry to entirely specialised training - ST3*
- Exit at certification

*** A critical competence point is ST3 at which point, in practice, trainees will make a clear commitment to one of the ten SAC-defined disciplines of surgery.**

UK Only

Within the early years of training (defined as the period prior to entry into ST3), much of the content is common across all the surgical specialties. During this period, trainees will acquire the competences that are common to all surgical trainees (defined as common competences) together with a limited range of competences that are relevant to their chosen surgical specialty (defined as specialty-specific competences).

- Those who have made a definitive choice of their desired surgical specialty, and who have been able to enter a “run-through” training programme, will be able to focus upon achieving the common competences and the specialty-specific competences for their chosen specialty.
- Those who have not yet made a definitive choice of their desired surgical specialty will obtain a range of extra competences in a variety of surgical specialties, while at the same time sampling those specialties, before focussing on the chosen specialty prior to entry into ST3.

For those not in run-through programmes, within the early years, training is not committed to a specific surgical specialty and trainees can enter any of the relevant specialties at ST3 level provided they a) meet their educational milestones in the common surgical component of the curriculum and b) satisfy all the specialty requirements for entry in the specialty of their choice. The different training schemes offered by the Postgraduate Deaneries and Local Education and Training Boards (LETBs) meet different educational needs and permit trainees to make earlier or later final career choices based on ability and preference.

It is essential that trainees achieve both common and specialty-specific competence to be eligible to compete at the ST3 specialty entry competence level. In the early years (initial stage), the common core component reflects the level of competence that all surgeons must demonstrate, while specialty-specific competence reflects the early competences relevant to an individual specialty.

From August 2013, the MRCS examination became a formal exit requirement from Core Surgical Training. It is also a mandatory requirement to enter higher specialty training in any discipline, irrespective of candidates reaching all other educational requirements. Otolaryngology trainees are required to pass the MRCS(ENT) examination or the MRCS and the DO-HNS examination.

UK and Republic of Ireland

Following entry into higher specialty training (which for those who have undergone training in core programmes will follow on from a second selection process), the trainee will typically undergo a period of training in the broad specialty and at the higher levels begin to develop an area of special interest, to allow some degree of specialisation in his or her subsequent career.

Early Years Surgical Training – UK Only

The purposes of early years (i.e. the initial stage) training are:-

1. To provide a broad based initial training in surgery with attainment of knowledge, skills and professional behaviours relevant to the practice of surgery in any specialist surgical discipline. This is defined within the common component of the syllabus (which is also the syllabus of the MRCS).
2. In addition it will provide early specialty training such that trainees can demonstrate that they have the knowledge, skills and professional behaviours to enter higher specialty training in a surgical specialty. The specialty element in the early years is not tested in the MRCS but through workplace-based assessments (WBAs) in the first instance.

Additionally trainees will be continuously assessed on the contents of the common component and their specialty specific slots through WBAs and structured reports from Assigned Educational Supervisors (AES) which in turn contribute to the Annual Review of Competence Progression (ARCP); this includes the level of competence expected of all doctors including surgeons to meet their obligations under Good Medical Practice (GMP) in order to remain licensed to practise.

Trainees who gain entry to higher specialty training despite some remediable and identified gaps in their specialty specific curriculum competences must ensure that these are dealt with expeditiously during ST3. All these gaps must be addressed by the time of a ST3 ARCP as part of their overall permission to progress to ST4. They must be specifically addressed through local learning agreements with educational supervisors. Trainees with identified gaps must be accountable to the Training Programme Directors (TPDs) whom in turn must address this as part of their report to the ARCP process.

Intermediate and Final Years Specialty Training – UK and Republic of Ireland

The purposes of the intermediate and final years training are:

1. To provide higher specialty training in the specialty with attainment of knowledge, skills and professional behaviours relevant to the practice in the specialty. This is defined within the specialty-specific component of the early years syllabus and the intermediate and final stages of the syllabus (and is also the syllabus of the FRCS).
2. To develop competence to manage patients presenting either acutely or electively with a range of symptoms and conditions as specified in the syllabus (and the syllabus of the FRCS).
3. To develop competence to manage an additional range of elective and emergency conditions by virtue of appropriate training and assessment opportunities obtained during training as specified by special interest or sub-specialty components of the final stage syllabus. This is tested either by the FRCS and/or by WBAs.
4. To acquire professional competences as specified in the syllabus and in the General Medical Council's Guide to Professional Conduct and Ethics.

The Training Pathway

From the trainee's perspective, he or she will be able to undertake surgical training via differing routes depending on which training scheme they choose or are selected for.

1. Run-through training (UK only)

For those trainees who are certain of their specialty choice, and who choose to enter "run-through" training, competitive entry into ST1 will be possible in their chosen specialty to certification, where this is offered by the specialty. As well as specialty-specific competences, those on this route will still need to attain the level of competence common to all surgeons before entering ST3 (ST4 in Neurosurgery) and this will be assessed through the MRCS, WBAs and the ARCP. This route is currently available in Neurosurgery (and in some Deaneries/LETBs Cardiothoracic Surgery, Oral and Maxillofacial Surgery and Trauma and Orthopaedic Surgery).

2. Uncoupled training

This route is currently available in General Surgery, Cardiothoracic Surgery, Oral and Maxillofacial Surgery, Otolaryngology, Paediatric Surgery, Plastic Surgery, Trauma and Orthopaedic Surgery, Urology and Vascular Surgery.

For those trainees who are either uncertain of their chosen specialty, who are unable to gain entry to run-through training, or who choose a specialty that does not offer the run-through route, a period of "Core" surgical training will be necessary. This period of training is designated CT1 and CT2 in the UK. During this period trainees will attain the common surgical knowledge and skills and generic professional behaviours, while sampling a number of surgical specialties. In

addition to attaining common competences, trainees will need to complete their speciality specific competences to be eligible to enter ST3 in their chosen specialty. They will then seek to enter specialty training at the ST3 level by competitive entry. Open competition will test trainees against SAC defined competences for ST3 entry.

This model has a number of possible variants. Core training might sample several specialties, without any particular specialty focus. In such cases some specialty top up training may be needed later on in order to reach specialty entry at ST3 level. Another variant would organise core training along a theme that supports progression to a specific specialty. In these situations many trainees may pass straight from CT2 to ST3 in their chosen discipline if selected. In practice, core surgical training will run over an indicative timescale of 2 years (CT1-2).

3. Academic training

In the UK some early years' trainees may wish to pursue an academic surgical career and will devote a significant proportion of their time to additional academic pursuits including research and teaching. For the majority this will lead (later in specialised training) to a period of time in dedicated research, resulting in the award of a higher degree in a scientific area related to their chosen specialty. For others who wish to revert to full time clinical training, this will also be possible, providing that the relevant clinical competences are achieved.

General information on UK academic pathways can be found using the following link: http://specialtytraining.hee.nhs.uk/news/the-gold-guide/

The JCST is keen to support academic careers within surgery and has ensured that the surgical curriculum is flexible enough to accommodate an academic pathway. The curriculum specifies that each individual trainee's training is planned and recorded through the learning agreement.

In England, Academic Clinical Fellows (ACFs) are generally expected to achieve the same level of clinical competence as other surgical trainees within the same timeframe. In order to progress through training pathways the ACF, in addition to demonstrating competence in clinical aspects, will generally be required to have obtained a funded Research Training Fellowship in order to undertake a PhD or MD, which they will complete during an out of programme period. Some trainees during their period of full-time research may want to carry out some clinics or on call, if they and their academic supervisor feel that it is in their best interests. On successful completion of a PhD or MD the ACF will either return to their clinical programme, apply for an Academic Clinical Lecturer (ACL) or Clinician Scientist post.

Arrangements for academic training differ in detail in the devolved nations of the UK and in the Republic of Ireland. For Wales, further information can be obtained from http://www.walesdeanery.org/index.php/en/wcat.html. For Scotland, information can be obtained at http://www.nes.scot.nhs.uk/, and for Northern Ireland at http://www.nimdta.gov.uk/.

In the Republic of Ireland trainees with an interest in academic surgery may choose to spend time out of training in a dedicated research post.

Academic trainees will need to complete all the essential elements of their specialty syllabus satisfactorily in order to be awarded a CCT, CESR-CP or CCST. It is acknowledged that Clinical Academics may take somewhat longer in training to achieve competence at CCT/CESR-CP level than trainees taking a clinical pathway; however they will be supported fully and treated as individuals with their personal progress being matched to their learning agreement.

Moving from one discipline of surgery to another

In the early years it is possible that a trainee who has started to develop a portfolio consistent with a particular specialist discipline might wish to move to another. One of the strengths of the flexible early years programme is that it will be possible, depending on the local circumstances, to make such changes with an identification of suitable educational competences that may be transferred. This is strictly conditional on a trainee achieving the educational milestones so far agreed for them. Moving from one discipline to another because of the need to remediate in the original discipline would not normally be permitted. All common requirements, for example, possession of the MRCS, would be transferable. Those leaving ENT however could not use the DO-HNS examination as equivalent to the MRCS examination and those wishing to enter ENT (and already having the MRCS) would be required to sit the Part 2 DO-HNS examination.

In order to be eligible to move from one discipline to another the following conditions therefore apply:

1. Achieve a satisfactory outcome in ARCPs up to that point including all relevant WBAs.
2. Fulfil the minimum period in the new specialty of choice in order to progress to ST3 in that discipline (ST4 in Neurosurgery).
3. Obtain the new position through open competition in the annual selection round.
4. Pass the MRCS, MRCS(ENT) (or DO-HNS in addition to the MRCS) examination

The process in practice would be subject to local negotiations between the Postgraduate Dean or appointed nominee in the Republic of Ireland, designated training supervisors and the trainee making the request. If the decision to change theme in core programmes occurs early the effective increase in training time may be minimal. If the decision occurs later or during run-through, more time spent in the early years is almost inevitable. The progression to ST3 is in essence competence rather than time dependent. Those spending longer having made a change may be subject to limitations on any subsequent period required for remediation, although this ultimately would be a Deanery/LETB decision.

Completion of training

Successful completion of the programme in the UK will result in a Certificate of Completion of Training (CCT) or a Certificate of Eligibility for Specialist Registration via the Combined Programme (CESR-CP) and, in Ireland, a Certificate of Completion of Specialist Training (CCST), and placement on the Specialist Register of the GMC or the Medical Council of Ireland (MCoI). This will indicate that the surgeon has reached the curriculum standards of competence to practice as a consultant surgeon in the UK or the Republic of Ireland. These requirements are set by the SACs and the Royal Colleges of Surgeons, are approved by the GMC in the UK or MCoI in Ireland, and translate into the ability to manage a significant proportion of the elective work within the specialty and to undertake the primary management of emergencies. It is anticipated that where additional, well-recognised specialist skills are required by the service, these will be gained by the completion of additional modules before the completion of training and the award of the specialty certificate.

Doctors who wish to join the GMC's Specialist Register and have not followed a full or part of a training programme approved by the GMC in the UK leading to a CCT/CESR-CP but who may have gained the same level of skills and knowledge as CCT/CESR-CP holders can apply for a Certificate of Eligibility for Specialist Registration (CESR).

Once on the Specialist Register, all surgeons will be expected to maintain their professional development in line with Good Medical Practice for the purpose of revalidation in the UK, and in accordance with the Professional Competence Scheme (PCS) in the Republic of Ireland.

The Syllabus

Each syllabus details the learning content and outcomes to be achieved at each stage of training.

Which syllabus should I choose?

If you are a trainee in a generic or themed core programme **(CT1-2):** Click on the ***Core Surgical Training syllabus***

If you are a trainee in the early years of a run-through programme **(ST1-2):** Click on the relevant ***specialty syllabus*** and then on the ***Initial Stage*** of training. Run-through programmes include:

- Cardiothoracic Surgery (in some deaneries)
- Neurosurgery

If you are a trainee in Higher Surgical Training **(ST3 or above):** Click on the relevant ***specialty syllabus*** and then on the stage of training

Which version?

The syllabuses are from time to time updated in line with changes in the practice or structure of training. They indicate the date of GMC approval and all trainees should use the most up to date version. When an older version of the curriculum is superseded, trainees will be expected to transfer to the most recent version in the interests of patient safety and educational quality. All but the latest version of the curriculum will be decommissioned by 1st January 2016. Trainees will be able to view documents that map new versions to previous ones.

Related downloads

- Quick Guide to the early years syllabus [PDF:190Kb]
- GMC position statement - Moving to the Current Curriculum November 2012

The syllabus

Overview and objectives of the curriculum

ORL is the third largest surgical specialty in the UK. ORL deals with the diagnosis and treatment of the whole range of medical and surgical problems affecting the ear, nose and throat and surrounding anatomical areas .

There has been a trend towards specialisation within ORL. These areas of special interest do not have a separate specialty advisory committee (SAC) or curriculum. They are all part of the ORL curriculum to be covered in Higher Surgical Training. Some areas require further training after CCT and there are Interface Fellowship posts in some areas of specialism for advanced, pre CCT, training.

The main areas of special interest in ORL at the time of writing are as follows:

- Head and neck oncology
- Benign head and neck surgery
- Sleep medicine
- Paediatric otorhinolaryngology
- Otology
- Neuro-otology
- Audio vestibular medicine
- Skull base surgery
- Medical rhinology
- Surgical rhinology
- Facial plastic surgery
- Phoniatrics
- Cleft lip and palate

Trainees will be expected to develop an interest in at least one of the above subspecialist areas.

In addition trainees will be expected to pursue activities which support professional development, for example:

- Academic ORL
- Management
- Education
- Leadership

The Purposes of Training in ORL

The principal purpose of training in the specialty of ORL surgery is to produce clinicians competent to work as consultant ORL surgeons in the UK.

This includes:

- Competence to manage patients presenting on an unselected emergency ORL ‘take’, diagnosing, assessing and treating or referring on as appropriate.
- Competence in the management of patients presenting with a range of symptoms and elective conditions as specified in the syllabus for ORL.
- Knowledge of the subject in depth and breadth, which supports accurate diagnosis, assessment and onward referral where appropriate.
- Competence to manage an additional range of elective and emergency conditions by virtue of appropriate training and assessment opportunities obtained during training.
- Through appropriate training and experience, to contribute to the development of a body of consultant surgeons capable of delivering the wide range of medical, managerial, leadership and educational skills required by the health services in the UK.
- To impart the professional competences as outlined in the syllabus and derived from the Good Medical Practice framework of the General Medical Council of the UK.

The Training Pathway in the Specialty of ORL Surgery

The syllabus is linked with a number of related surgical specialties during the first two years of training (themed training) in core surgical training. These are Neurosurgery, Plastic Surgery, Paediatric Surgery, Upper GI Surgery, Oral and Maxillofacial Surgery and Thoracic Surgery. Some other specialities are also allied to ORL for example Audiological Medicine, Accident and Emergency, Paediatrics, ITU medicine, Ophthalmology and General Practice. Time spent training in these specialities will complement the training for an aspiring ENT surgeon during core training. Thereafter training is conducted solely within the specialty unless interface modules are taken during the final years.

Other specialities will require some competence in ENT during their core training and these areas will be indicated within the syllabus

The minimum objective of training is to produce specialist surgeons who are emergency safe and can manage the common conditions set out in the syllabus, from start to finish. At successful completion of training, CCT holders will also possess a depth and breadth of knowledge that permits accurate diagnosis and assessment of a wide range of conditions and onward referral as appropriate.

Each trainee is expected to develop an area of special interest to a higher standard. He/she will contribute to the development of the service in its broadest terms in line with the principles laid out in the Good Medical Practice framework of the General Medical Council of the UK.

The **purposes of training in the specialty of ORL surgery** are defined elsewhere.

The syllabus supports a curriculum that is divided into two **Stages**, which together form the training continuum through to the level of a CCT in the Specialty of ORL.

The curriculum is competence based and progress is regulated by the acquisition of specific goals set for each stage. Assessments occur at a national, regional or local level.

Variation in the time to achieve the specified learning outcomes is permitted, but an indicative time-frame is set within each stage and these are conveniently considered as annual periods (i.e. CT1, CT2, etc. to fit with the annual review of competence progression panels.

The indicative time frames for each stage are as follows:

- The initial stage of core surgical training themed to the specialty of ORL: 2 years
- The final stage of higher surgical training in the specialty of ORL – 6 years
- Special interest training in a sub-specialty of ORL surgery within the final stage.

Trainees sit the Intercollegiate FRCS (Otolaryngology) examination, typically from ST6 onwards.

The overall predicted length of training is 8 years for the majority of trainees entering the specialty. Successful conclusion is marked by the award of the Certificate of Completion of Training (CCT).

Within the syllabus, related areas of learning and training are integrated in the form of a series of a series of modules designated as Key Topics.

Milestones or competence points which allow trainees to benchmark their progress to CCT are:

- Entry to themed core surgical training - CT1/ACF;
- Passing MRCS Part A
- Passing MRCS(ENT)
- National Selection (or run through in Scotland) to Otolaryngology training – ST3.
- Passing FRCS (ENT)
- Exit at CCT

Milestones or competence points which allow trainees to benchmark their progress to CESR are:

- Obtaining a post with ENT in CT1 or 2
- Generic Surgical competencies to enable MRCS Part A to be passed
- Passing MRCS(ENT)
- Finishing CT without an ST post
- Undertaking LAT posts or moving into SD post
- National Selection towards CCT application to ST4+; if not continue CESR route.
- Gaining competencies in service need subspecialities
- Obtaining the Pay Levels to top of SD Grade
- Top Up Training via LATs, Fellowships, Secondments.
- Passing FRCS(ENT)
- Obtaining CESR (Article 14)

The European diploma in Otolaryngology is equivalent to the MRCS (ENT)/ DOHNS.

CT1	CT2	Run through to ST3 occurs in Scotland

Early Years

Uncoupled/Themed Programmes

12 months ENT early in CT (6 months minimum 18 months maximum)

Additionally 2 or 3 placements over 12 months in a range of related specialties:

- Plastic Surgery
- Oral and Maxillofacial Surgery
- General Upper GI Surgery
- Neurosurgery
- Paediatric Surgery
- Cardiothoracic Surgery
- Ophthalmology
- Accident and Emergency Medicine
- General Practice

The common surgical components are covered in Otolaryngology placements and complementary placements. The ENT components are covered in ENT.

A CT2 extension in ENT may be available for trainees who have chosen to change to ENT from generic CST. CT2 extension in generic surgery may also be available for themed ENT trainees who chose to change to another surgical speciality or for trainees who require additional time to pass exams or need a second attempt applying through National Selection.

The ideal time spent in ENT post FY2 (or equivalent) for ST3 application is between 6 and 18 months.

MRCS(ENT) required – Part A MRCS may be taken in Foundation Year 2. Otolaryngology trainees will be required to complete the MRCS(ENT) examination or the MRCS and the DOHNS examination and should do so as early as possible in the initial stage.

Those not progressing through national selection at the first attempt should either decide to become SDs and can then move into the LAT/Trust Fellowship grades or re-submit the next year for national selection. They should consider doing non-ENT jobs in the meantime. This will enhance the chances of a career

Training to Consultant/CCT

National Selection Early years and specialty training is 'decoupled' except in Scotland

			Final Stage		**(Special Interest) (Fellowships/Interface)**
ST3	**ST4**	**ST5**	**ST6**	**ST7**	**ST8**

The trainee will undergo a period of specialty training of 6 indicative years in the broad specialty as defined by the final stage (including special interest) syllabus.
General ENT and Emergency Safe Training with the expectation of subspecilaist training/fellowships. **FRCS (ENT)**

Working as Speciality Doctor and possible CESR

Undertake LATs and Trust Grades or straight into Speciality Otolaryngologist grade

Trust grade	**LAT**	**Fellowship**	**SD**	**SD**	**SD**

The decision to become a Speciality doctor; DO-HNS exam required

Working in General ENT and some sub specialisation as required by the service needs**. FRCS or other qualifications will only be required if applying for CESR.**

The Scope and Standards of ORL Practice at CCT

This list defines, in general terms the essential skills and levels of clinical expertise expected of an ORL surgeon emerging from training having completed the surgical specialty CCT. It is unlikely that the expertise will be confined to the descriptions that follow as most ORL surgeons will have developed additional interests and competences by the time that they emerge from training. There is flexibility within the curriculum to accommodate this. ORL encompasses a significant non surgical practice with increasing emphasis being placed on medical management and rehabilitation from the effects of disease.

Where the specialty encompasses areas of special interest that require additional training, these are expressed in lists that build on the essential components of the CCT syllabus.

Those pursuing a career in ORL surgery should undertake further professional development following the acquisition of the CCT. The range and levels of expertise will change in response to the demands of the service, personal aspirations and the needs of patients.

Taking into account the present and future requirements of the service, the ORL surgeon emerging from training at CCT level will expect to deal with patients presenting with a range of problems. As it is used here, the term ‘manage’ equates to diagnosis, assessment and treatment or referral as appropriate. The levels of expertise expected are further expressed within the detail of the syllabus.

At CCT, the ORL surgeon will be able to:

1. Manage patients presenting with all ORL emergencies including managing complications and onward referral as appropriate;
    1. Able to diagnose and treat patients presenting with foreign bodies in the ear, nose and throat including the oral cavity and airway.
    2. Able to diagnose and treat acute infections, inflammations and tumours of the face, head and neck, oral cavity, ear and sinuses. This would include managing the complications and onward referral where appropriate.
    3. Able to manage epistaxis, emergency airway problems, acute dysphagia, sudden hearing loss, facial palsy, facial and neck trauma.
    4. Able to manage all postoperative problems in ORL patients.
2. Manage paediatric conditions.
    1. Congenital conditions
    2. Disorders of the adenoids
    3. Obstructive sleep apnoea
    4. Rhinosinusitis and its complications
    5. Otitis media and its complications
    6. Congenital and prelingual deafness
    7. Sensorineural hearing loss in children including non organic hearing loss
    8. Auditory prostheses
    9. Surgical management of congenital ear disorders including reconstruction.
    10. Tinnitus and hyperacusis
    11. Imbalance in children
    12. Upper airway conditions affecting the larynx and pharynx.
    13. The drooling child
3. Manage conditions of the external and middle ear.
    1. Infections of the external and middle ear
    2. Acute and chronic inflammatory conditions including cholesteatoma,
    3. Conditions affecting hearing
    4. Facial nerve palsy .
    5. Tumours of the ear canal skin, middle ear mucosa and skull base
    6. Congenital and vascular abnormalities.
4. Manage conditions of the inner ear.
    1. Deafness due to ageing
    2. Infections
    3. Noise trauma

4. Ototoxicity and development problems
5. Meniere's syndrome
6. Tumours of the cerebellopontine angle and other lateral skull base lesions
7. Balance disorders.
8. Tinnitus

5. Manage conditions of the nose and paranasal sinuses.
    1. Acute and chronic rhinosinusitis
    2. Chronic facial pain
    3. Allergic rhinitis
    4. Non-allergic rhinitis
    5. Nasal polyps
    6. Granulomatous rhinitis
    7. Nasal, sinus and anterior skull base tumours both benign and malignant
    8. Disorders of the sense of smell
    9. Structural, traumatic and cosmetic nasal and facial deformities.
    10. Cosmetic and aesthetic facial problems
    11. Surgical management of epiphora.
6. Manage conditions of the oral cavity
    1. Infections of the oral cavity and, oral ulceration
    2. Carcinoma of the oral cavity
    3. Temperomandibular joint dysfunction
    4. Lesions of the minor salivary glands.
7. Manage conditions of the larynx and pharynx.
    1. Pharyngeal pouches
    2. Tonsillitis and its complications
    3. Disorders of the adenoids
    4. Stridor, acute and chronic
    5. Laryngitis
    6. Disorders of the voice
    7. Carcinoma and other tumours of the larynx, nasopharynx, oropharynx and hypopharynx
    8. Tracheostomy and its complications.
    9. Snoring and obstructive sleep apnoea
    10. Lesions of the lower oesophagus and
8. Manage conditions of the neck, thyroid and salivary glands.
    1. Head and neck lymphadenopathy
    2. Benign and malignant skin lesions
    3. Sialadenitis
    4. Benign and malignant salivary lesions
    5. Benign and malignant salivary disease
    6. Parathyroid disease
    7. Craniocervical trauma
    8. Skin cancer affecting the head and neck.
9. Professional skills and behaviours
    1. And will demonstrate the professional skills and behaviours associated with consultant practice in the UK (including those outlined in Good Medical Practice). (core training)

At CCT an indication of the requirements to demonstrate competence is provided. At the time of writing they are:

- Logbook including an absolute minimum 10 Mastoid Operations as principal surgeon; 10 major neck operations as principal surgeon; 10 tracheostomies; 10 Paediatric Endoscopies (including flexible) as main surgeon; 10 Septorhinoplasties as main surgeon; 10 FESS as only scrubbed surgeon; 10 removal of Foreign Bodies from airway (including nasal foreign bodies and fishbones).
- Undertaking 2000 operations as principal or main assisting surgeon during the six years of higher surgical training.
- Areas of specialist interest demonstrated by advanced surgical or medical experience in logbook and/or CV e.g. fellowships (UK or overseas), attendance at specialist combined clinics, participation in relevant specialist courses, documented logbook experience of large caseload in chosen special interest area.
- Emergency Training. Managing 1000 emergencies.

- Operative and clinic exposure with all jobs compliant with syllabus standards (4 lists and 3 clinics per week). Timetables of pre-CCT advanced fellowship training may vary from this standard to reflect the learning opportunities e.g. in H&N fellowships there may be fewer clinics and more operating lists.
- Undertaking training in a hospital with a minimum hospital throughput of 500 operations per annum per higher surgical trainee.
- Outpatients and Emergency clinics, demonstrate that in each attachment there have been 3 clinics per week of which one has been a special interest clinic. Clinics conform to current ENT UK guidelines for numbers and facilities.
- Trainees have been exposed during their training to all special interest areas within the curriculum (see p2, Overview of the curriculum)
- Details of Management skills, running rotas, sitting on management committees, Audit including audit of own results, Teaching/Education, Leadership, Research Skills and Team Working.

Learning Opportunities

Acquisition of competencies as defined in the syllabus are mainly acquired in the workplace, in the outpatient clinic, the ward, the emergency setting and the operating theatre, supplemented by private study. It is necessary for trainees to have ready access to study leave to supplement workplace based learning with 'off site' learning. This will take the form of one or more of the following;

- Mandatory Programme Based Training sessions, usually monthly
- Attendance at an external course, either classroom/ lecture based or an instructional course
- Attachments to centres of excellence, either in the UK or abroad to learn specific techniques.
- Attendance at International, National, Regional or Local Scientific meetings

These opportunities should be agreed in advance with a trainee's AES and/ or TPD to achieve specific objectives as agreed in a trainee's Personal Development Plan (PDP) and should take into account the specific requirements for their stage in training, their individual learning styles and current opportunities available.

ORL is a craft speciality and certain competencies can only be obtained by attendance at instructional courses which increasingly include simulation. These may be part of a continuous programme organised by a local training programme or attendance at an external course. As a minimum all trainees should attend the following courses;

- Temporal Bone Dissection Course
- Sinus anatomy and surgical dissection course
- Hands on laser surgery course including laser safety

- Head and Neck Surgery including phonosurgery
- Septorhinoplasty and facial plastics surgery
- Critical appraisal & Research skills
- APLS or equivalent

Trainees should be encouraged, as part of their PDP to attend other appropriate courses to ensure acquisition of competencies as detailed in the ORL syllabus. It is essential for trainees to use external learning opportunities to develop themselves to become up to date, knowledgeable specialists with a practice based on good evidence and sound medical principles.

As trainees approach CCT they will be encouraged to develop an area of special interest and will need support to attend instructional and other courses that will help them develop their specialist expertise. For example;

- Head and Neck; microvascular anastomosis course
- Rhinology; Advanced Sinus surgery course
- Facial Plastics; Advanced Facial Plastics course
- Otology; Advanced Temporal Bone course
- Paediatric ORL; Advanced Airway course

The role of simulation in ORL is still being considered but as in all surgical specialities it should be incorporated into the curriculum with both technical skills such as temporal bone dissection and more integrated team skills including full theatre simulation. The tools for some important skills are still being evaluated but simulation should be encouraged at all stages and levels of training where feasible. There are many procedures that are supported by simulation with well validated models for training in these areas. These include;

- Temporal bone dissection
- Sinonasal srgery
- Laser surgery on the upper airway
- Myringotomy and ventilation tube insertion
- Rigid laryngoscopy &bronchoscopy
- Microvascular surgery
- Head and neck anatomy and surgery

Syllabus standards in specialty training

Standards for depth of knowledge during intermediate and final years surgical training

In the intermediate and final stages of surgical training the following methodology is used to define the relevant depth of knowledge required of the surgical trainee. Each topic within a stage has a competence level ascribed to it for knowledge 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

Standards for clinical and technical skills

The practical application of knowledge is evidenced through clinical and technical skills. Each topic within a stage has a competence level ascribed to it in the areas of clinical and technical skills ranging from 1 to 4:

1. Has observed

Exit descriptor; at this level the trainee:

- Has adequate knowledge of the steps through direct observation.
- Demonstrates that he/she can handle instruments relevant to the procedure appropriately and safely.
- Can perform some parts of the procedure with reasonable fluency.

2. Can do with assistance

Exit 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 from 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

Exit 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 scrub.

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 the level at which one would expect a UK consultant surgeon to function.
- Is capable of supervising trainees.

The explicit standards form the basis for:

- Specifying the syllabus content;
- Organising workplace (on-the-job) training in terms of appropriate case mix and case load;
- Providing the basis for identifying relevant teaching and learning opportunities that are needed to support trainees' development at each particular stage of progress; and
- Informing competence-based assessment to provide evidence of what trainees know and can do.

Standards for the professional skills and leadership syllabus

The methodology used to define the standards for this component of the syllabus is through a series of descriptors that indicate the sorts of activities that trainees should be able to successfully undertake at two specific time points, namely the end of "early years" training (i.e. entry into ST3) and the end of surgical training (i.e. CCT).

Areas of Special Interest

Head and Neck Oncology

The majority of the activity in this area involves the management of patients with malignancy of the skin and structures of the head and neck, larynx and pharynx, oral cavity, salivary glands, thyroid gland and paranasal sinuses.

The specialist should work in a properly constituted multidisciplinary team that includes oral and maxillofacial surgeons and oncologists as well as supporting and diagnostic staff. Such specialists may well have undertaken an interdisciplinary fellowship either within the UK (interface module) or abroad. At the time of writing there are seven interface fellowships, which are available in competition with ORL, OMFS and plastic surgery trainees

Benign conditions

Management of benign tumours of the salivary glands, thyroid and other head and neck structures form the main part of the workload.

Surgeons who have developed this area of special interest should work as part of the relevant multidisciplinary team e.g. endocrine services.

Phoniatrics

This is a developing area focussing on the management of patients with voice disorders, often relating to their occupation such as professional voice users and performers.

Practice in this area involves working closely with speech and language therapists and other specialist workers in the field, as there are often other issues such as psychological factors that require consideration and management.

Specifically looking at the functional outcomes of laryngeal surgery this area has developed with the improved instrumentation for measurement of voice and the emphasis on evidence based outcomes.The multidisciplinary nature involves working closely with speech and & language therapists and other allied health professionals.

Treatments may range from rehabilitation through to active interventions such as Botox injections into the muscles of phonation. Microlaryngeal and excisional surgery. or endoscopic surgery.

Sleep medicine

Sleep medicine covers the medical and surgical management of patients with Obstructive Sleep Apnoea and Snoring, which is increasing in incidence within the population. Specialists in this area undertake research to ensure that outcomes of interventions are evidence based, and perform special investigations to inform the correct management of such patients. Multidisciplinary cooperation with respiratory physicians, Maxillofacial surgeons and dental specialists is integral to the effective management of such patients.

Paediatric Otorhinolarynology

General practice

Paediatric ORL accounts for approximately a third of general ORL practice,

Advanced practice

It is recognised that children with congenital lesions, airway problems and developmental conditions including speech and hearing deficits, require more specialist input. The specialist may focus on one area such as paediatric cochlear implantation or airway problems.

These specialists will often work in a multidisciplinary team in order to provide such services. They may have spent time within an approved paediatric fellowship in the UK or abroad.

Cleft Lip and Palate

At the time of writing, in order to provide the UK service there are a variable number of interface training fellowships offered each year for appointment. These are open to ORL, oral and maxillofacial and plastic surgical trainees by application following advertisement.

The ORL surgeon may form part of the team managing the ear and nasal conditions. He or she may compete for a pre-CCT fellowship.

Otology

Management of disease of the external and middle and inner ear, including ossicular reconstruction and the use implantable prosthetic hearing devices form the major part of practice in this area. There are two further subspecialty areas, neuro-otology and skull base surgery.

Neuro-otology

This specialty focuses on the management of disorders of the cochlea and vestibular apparatus and the rehabilitation of patients thus affected. In this area, the function of the ORL specialist is both diagnostic and therapeutic, leading a team of health-care professionals with expertise in auditory and vestibular rehabilitation. Close collaboration with colleagues in neurology, neurological surgery and neuroimaging is frequently required., Implantable prostheses, such as cochlear and auditory brainstem implants, play an important part in neuro-otology. Some specialists practice skull base surgery for such conditions as lateral skull base tumours, temporal bone fractures, facial nerve repair and cerebrospinal fluid leaks., Neurotologists have a central role in the team management of Neurofibromatosis Type 2 for which national commissioning arrangements are in place.

Skull Base Surgery

Specialists in this area work with neurosurgeons, neurologists and neuroradiologists and other colleagues as members of a multi-disciplinary team, which address the operative needs of patients with skull base conditions such as tumours of the lateral skull base.(eg acoustic and non-acoustic tumors of the cerebello-pontine angle, the infratemporal and pterygopalatine fossae,the clivus and parasellar space), as well as managing skull base trauma, skull base osteomyelitis and cerebrospinal fluid leaks. Specialists in skull base surgery also have an important role to play in the multidisciplinary management of anterior skull base conditions. Resective surgery is carried out using both the operating microscope and the endoscope, particularly for sinus cancers..

Rhinology

Medical Rhinology

This area involves the management of nasal and sinus conditions, including undertaking the full range of treatments for allergy such as desensitization.

Surgical Rhinology

Although comprising conventional and endoscopic surgery, the surgical specialist in this area will have additional expertise to that required for routine ORL practice. For example the specialist working in this area may undertake surgery in the frontal recess, or more complex rhinoplasty.

Such specialists may work in teams with the neurosurgeons or endocrinologists when undertaking pituitary surgery, anterior skull base surgery or CSF leaks.

Facial Plastic Surgery

The majority of practice in this area involves the selection and management of patients for cosmetic rhinoplasty. Soft tissue face and neck work may form part of the practice such as the surgery for ageing including otoplasty blephroplasty and face lifts. The treatment of facial skin cancers and facial reanimation after facial palsy is undertaken Training may occur outside the NHS in pre-CCT training interface fellowship posts as well as inside the NHS. Interface fellowship training is available in competition with ORL, OMFS and facial plastics trainees.

Academic ORL

Academic surgery provides an exciting and challenging career for those who wish to combine clinical surgery with a major commitment to research and undergraduate teaching.

Trainees interested in this career pathway will, in addition to completing clinical training in ORL, acquire a high level of competency in research. After completing their clinical training those committed to an academic career will pursue a position in a university department as senior lecturer with a longer-term view to promotion to a chair in surgery. Some trainees will complete an approved Academic Clinical Fellowship (ACF) and Academic Clinical Lectureship (ACL)

Trainees must complete the full requirements of the specialty curriculum in order to gain the CCT.

Management

The importance that all consultants are trained in management and leadership skills is well recognised. Trainees who wish to undertake further development in this area will be encouraged to undertake further studies in parallel with their clinical and professional training, including modular degrees.

Education

It is imperative that the surgical profession maintains its reputation for high quality teaching, training and assessment.

All educational supervisors are required to receive training in this area and there are now available courses that will lead to the acquisition of further qualifications such as Cert. Ed, M.Sc. or Masters in these disciplines for trainees wishing to develop these skills further in parallel with their clinical studies.

The Configuration and Delivery of ORL Services

- The service comprises emergency and elective elements both of which require significant supporting infrastructure in order to deliver them to modern standards.
- Some specialists may work outside the current hospital structure.
- A full range of outpatient diagnostic services such as audiology and diagnostic endoscopy are required. Many of the surgical services may be delivered through short stay facilities.

Future Trends in ORL Provision

- It is likely that the emphasis towards greater subspecialisation will continue, especially in the sphere of elective practice.
- However all consultants will be expected to remain emergency competent across the speciality from appointment to retirement. An absolute requirement for trainees is that at CCT they should be able to demonstrate competence in managing emergency ENT conditions.
- The government has signalled its intention to devolve the delivery of surgical services for elective conditions into smaller, independent units, including primary care, where at all possible.
- Other service providers such as diagnostic and treatment centres may provide care in future.

Key Topics

The common areas for all specialties will be considered elsewhere in the common areas of core training.

Key Topics in Otolaryngology

Otology

- Congenital and acquired deformity of the ear and temporal bone
- Deafness in adults and children
- Disorders of the external ear
- Acute and Chronic middle ear disease including Otitis media with effusion
- Balance disorders
- Tinnitus
- Disorders of the facial nerve
- Lateral Skull Base Tumours
- Skull base trauma

Rhinology and Facial Plastics

- Rhinitis/Sinusitis ~ including allergy, inflammation and infection
- Nasal polyps
- Congenital and acquired deformities of the facial and nasal skeleton
- Tumours of the nose and paranasal sinuses including skin tumours of the face, head and neck and anterior skull base
- Epistaxis
- Facial pain
- Disorders of the sense of smell
- Surgical Management of epiphora
- Management of skin cancer of the head and neck

Head and Neck

- Congenital and acquired deformity of the larynx
- Voice disorders
- Swallowing disorders
- Disorders of the thyroid and salivary glands
- Head and neck cancer
- Cervical lymphadenopathy
- Disorders of the pharynx and oesophagus including diseases of the tonsils
- Upper airway obstruction
- Infections of the soft tissues of the Head and Neck
- Sleep apnoea and snoring in adults
- Trauma to the Head and Neck

Paediatric Otolaryngology

- Deafness in childhood including congenital deformities of the ears and temporal bone
- Upper airway disorders and sleep apnoea in children
- Neck masses in children
- Acute and chronic ear disease in children including sensorineural hearing loss and tinnitus
- Disorders and deformity of the external ear
- Drooling
- Disorders of balance

Initial Stage Overview

The purpose of the initial stage (early years) (CT1 - 2) is to allow the trainee to develop the basic and fundamental surgical skills common to all surgical specialties, together with a few surgical skills relevant to Otolaryngology i.e. the experience and opportunities necessary to successfully progress to ST3.

The outcome of early years training is to achieve the competences required of surgeons entering ST3. These competences include:

- Competence in the management of patients presenting with a range of symptoms and elective and emergency conditions as specified in the core syllabus for surgery.
- Competence in the management of patients presenting with an additional range of elective and emergency conditions, as specified by the Otolaryngology specialty specific component of the early years syllabus.
- Professional competences as specified in the syllabus and derived from Good Medical Practice documents of General Medical Council of the UK

By the end of CT2, trainees, (including those following an academic pathway), will have acquired to the defined level:

- Generic skills to allow team working and management of Otolaryngological patients
- The ability to perform as a member of the team caring for surgical patients
- The ability to receive patients as emergencies and review patients in clinics and initiate management and diagnostic processes based on a reasonable differential diagnosis
- The ability to manage the perioperative care of their patients and recognise common complications and either be able to deal with them or know to whom to refer
- To be a safe and useful assistant in the operating room
- To perform some simple procedures under minimal supervision and perform more complex procedures under direct supervision

In addition they will have attained the knowledge, skills and behaviour as defined in the following (common) modules of the syllabus:

Module 1: Basic Science Knowledge relevant to surgical practice (These can all be contextualised within the list of presenting symptoms and conditions outlined in module 2)

- Anatomy
- Physiology
- Pharmacology - in particular safe prescribing
- Pathological principles underlying system specific pathology
- Microbiology
- Diagnostic and interventional radiology

Module 2: Common surgical conditions

- To assess and initiate investigation and management of common surgical conditions which may confront any patient whilst under the care of surgeons, irrespective of their speciality.
- To have sufficient understanding of these conditions so as to know what and to whom to refer in a way that an insightful discussion may take place with colleagues whom will be involved in the definitive management of these conditions.
- This defines the scope and depth of the topics in the generality of clinical surgery required of any surgeon irrespective of their ST3 defined speciality

Module 3 Basic surgical skills

- To prepare oneself for surgery
- To safely administer appropriate local anaesthetic agents
- To handle surgical instruments safely
- To handle tissues safely
- To incise and close superficial tissues accurately
- To tie secure knots

- To safely use surgical diathermy
- To achieve haemostasis of superficial vessels.
- To use a suitable surgical drain appropriately.
- To assist helpfully, even when the operation is not familiar.
- To understand the principles of anastomosis
- To understand the principles of endoscopy including laparoscopy

Module 4: The principles of assessment and management of the surgical patient

- To assess the surgical patient
- To elicit a history that is relevant, concise, accurate and appropriate to the patient's problem
- To produce timely, complete and legible clinical records.
- To assess the patient adequately prior to operation and manage any pre-operative problems appropriately.
- To propose and initiate surgical or non-surgical management as appropriate.
- To take informed consent for straightforward cases.

Module 5: Peri-operative care of the surgical patient

- To manage patient care in the peri-operative period.
- To assess and manage preoperative risk.
- To take part in the conduct of safe surgery in the operating theatre environment.
- To assess and manage bleeding including the use of blood products.
- To care for the patient in the post-operative period including the assessment of common complications.
- To assess, plan and manage post-operative fluid balance
- To assess and plan perioperative nutritional management.

Module 6: Assessment and early treatment of the patient with trauma

- To safely assess the multiply injured patient.
- To safely assess and initiate management of patients with
- traumatic skin and soft tissue injury
- chest trauma
- a head injury
- a spinal cord injury
- abdominal and urogenital trauma
- vascular trauma
- a single or multiple fractures or dislocations
- burns

Module 7: Surgical care of the paediatric patient

- To assess and manage children with surgical problems, understanding the similarities and differences from adult surgical patients.
- To understand common issues of child protection and to take action as appropriate.

Module 8: Management of the dying patient

- To manage the dying patient appropriately.
- To understand consent and ethical issues in patients certified DNAR (do not attempt resuscitation)
- To manage the dying patient in consultation with the palliative care team.

Module 9: Organ and tissue transplantation

- To understand the principles of organ and tissue transplantation.
- To assess brain stem death and understand its relevance to continued life support and organ donation.

Module 10: Health promotion

- To promote good health.

In addition they will have attained the knowledge, skills and behaviour as defined in the Otolaryngology specific Initial Stage Modules as set out after the generic modules

CORE SURGICAL TRAINING MODULES

Module 1	**Basic sciences**	**Assessment technique**	**Areas in which simulation should be used to develop relevant skills**
Objective	• To acquire and demonstrate underpinning basic science knowledge appropriate for the practice of surgery, including:- • Applied anatomy: Knowledge of anatomy appropriate for surgery • Physiology: Knowledge of physiology relevant to surgical practice • Pharmacology: Knowledge of pharmacology relevant to surgical practice centred around safe prescribing of common drugs • Pathology: Knowledge of pathological principles underlying system specific pathology • Microbiology: Knowledge of microbiology relevant to surgical practice Imaging: • Knowledge of the principles, strengths and weaknesses of various diagnostic and interventional imaging methods	Course completion certificate MRCS	
Knowledge	Applied anatomy: • Development and embryology • Gross and microscopic anatomy of the organs and other structures • Surface anatomy • Imaging anatomy This will include anatomy of thorax, abdomen, pelvis, perineum, limbs, spine, head and neck as appropriate for surgical operations that the trainee will be involved with during core training (see Module 2). Physiology: General physiological principles including: • Homeostasis • Thermoregulation • Metabolic pathways and abnormalities • Blood loss and hypovolaemic shock • Sepsis and septic shock • Fluid balance and fluid replacement therapy • Acid base balance • Bleeding and coagulation • Nutrition This will include the physiology of specific organ systems relevant to surgical care including the cardiovascular, respiratory, gastrointestinal, urinary, endocrine and neurological systems.		Strongly recommended: Life support Critical care Desirable Anatomy Team-Based Human Factors

	Pharmacology: • The pharmacology and safe prescribing of drugs used in the treatment of surgical diseases including analgesics, antibiotics, cardiovascular drugs, antiepileptic, anticoagulants, respiratory drugs, renal drugs, drugs used for the management of endocrine disorders (including diabetes) and local anaesthetics. • The principles of general anaesthesia • The principles of drugs used in the treatment of common malignancies • Can describe the effects and potential for harm of alcohol and other drugs including common presentations, wide range of acute and long term presentations (e.g. trauma, depression, hypertension etc.), the range of interventions, treatments and prognoses for use of alcohol and other drugs. Pathology: General pathological principles including: • Inflammation • Wound healing • Cellular injury • Tissue death including necrosis and apoptosis • Vascular disorders • Disorders of growth, differentiation and morphogenesis • Surgical immunology • Surgical haematology • Surgical biochemistry • Pathology of neoplasia • Classification of tumours • Tumour development and growth including metastasis • Principles of staging and grading of cancers • Principles of cancer therapy including surgery, radiotherapy, chemotherapy, immunotherapy and hormone therapy • Principles of cancer registration • Principles of cancer screening • The pathology of specific organ systems relevant to surgical care including cardiovascular pathology, respiratory pathology, gastrointestinal pathology, genitourinary disease, breast, exocrine and endocrine pathology, central and peripheral, neurological systems, skin, lymphoreticular and musculoskeletal systems Microbiology: • Surgically important micro organisms including blood borne viruses		

	• Soft tissue infections including cellulitis, abscesses, necrotising fasciitis, gangrene • Sources of infection • Sepsis and septic shock • Asepsis and antisepsis • Principles of disinfection and sterilisation • Antibiotics including prophylaxis and resistance • Principles of high risk patient management • Hospital acquired infections Imaging: • Principles of diagnostic and interventional imaging including x-rays, ultrasound, CT, MRI. PET, radiounucleotide scanning		

Module 2	**Common Surgical Conditions**		**Assessment technique**	**Areas in which simulation should be used to develop relevant skills**
Objective	This section assumes that trainees have general medical competences consistent with a doctor leaving Foundation in the UK. It also assumes an ongoing commitment to keeping these skills and knowledge up to date as laid out in GMP. It is predicated on the value that surgeons are doctors who carry our surgery and require competence. To demonstrate understanding of the relevant basic scientific principles for each of these surgical conditions and to be able to provide the relevant clinical care as defined in modules assessment and management as defined in Modules 1 and 4.		Certificate of successful completion of course MRCS	
Topics	Presenting symptoms or syndromes • Abdominal pain • Abdominal swelling • Change in bowel habit • Gastrointestinal haemorrhage • Rectal bleeding • Dysphagia • Dyspepsia • Jaundice	To include the following conditions • Appendicitis • Gastrointestinal malignancy • Inflammatory bowel disease • Diverticular disease • Intestinal obstruction • Adhesions • Abdominal hernias • Peritonitis • Intestinal perforation • Benign oesophageal disease • Peptic ulcer disease		Strongly recommended: Basic surgical skills Basic laparoscopic skills Fracture treatment Desirable Imaging interpretation Desirable (Cardiothoracic Surgery / Plastic Surgery): • Anastomosis • Angiography • Vascular

		• Benign and malignant hepatic, gall bladder and pancreatic disease • Haemorrhoids and perianal disease • Abdominal wall stomata		ultrasound • Surgical approaches to fractures
	Breast disease • Breast lumps and nipple discharge • Acute Breast pain	To include the following conditions • Benign and malignant breast lumps • Mastitis and breast abscess		
	Peripheral vascular disease Presenting symptoms or syndrome • Chronic and acute limb ischaemia • Aneurismal disease • Transient ischaemic attacks • Varicose veins • Leg ulceration	To include the following conditions • Atherosclerotic arterial disease • Embolic and thrombotic arterial disease • Venous insufficiency • Diabetic ulceration		
	Cardiovascular and pulmonary disease	To include the following conditions • Coronary heart disease • Bronchial carcinoma • Obstructive airways disease • Space occupying lesions of the chest		
	Genitourinary disease Presenting symptoms or syndrome • Loin pain • Haematuria • Lower urinary tract symptoms • Urinary retention • Renal failure • Scrotal swellings • Testicular pain	To include the following conditions • Genitourinary malignancy • Urinary calculus disease • Urinary tract infection • Benign prostatic hyperplasia • Obstructive uropathy		
	Trauma and orthopaedics Presenting symptoms or syndrome • Traumatic limb and joint pain and deformity • Chronic limb and joint pain and	To include the following conditions • Simple fractures and joint dislocations • Fractures around the hip and ankle • Basic principles of		

	deformity • Back pain	Degenerative joint disease • Basic principles of inflammatory joint disease including bone and joint infection • Compartment syndrome • Spinal nerve root entrapment and spinal cord compression • Metastatic bone cancer • Common peripheral neuropathies and nerve injuries		
	Disease of the Skin, Head and Neck Presenting symptoms or syndrome • Lumps in the neck • Epistaxis • Upper airway obstructions	To include the following conditions • Benign and malignant skin lesions • Benign and malignant lesions of the mouth and tongue		
	Neurology and Neurosurgery Presenting symptoms or syndrome • Headache • Facial pain • Coma	To include the following conditions • Space occupying lesions from bleeding and tumour		
	Endocrine Presenting symptoms or syndrome • Lumps in the neck • Acute endocrine crises	To include the following conditions • Thyroid and parathyroid disease • Adrenal gland disease • Diabetes		

Module 3	**Basic surgical skills**	**Assessment technique**	**Areas in which simulation should be used to develop relevant skills**
Objective	• Preparation of the surgeon for surgery • Safe administration of appropriate local anaesthetic agents • Acquisition of basic surgical skills in instrument and tissue handling. • Understanding of the formation and	WBA- PBA, CBD, DOPS	

	healing of surgical wounds • Incise superficial tissues accurately with suitable instruments. • Close superficial tissues accurately. • Tie secure knots. • Safely use surgical diathermy • Achieve haemostasis of superficial vessels. • Use suitable methods of retraction. • Knowledge of when to use a drain and which to choose. • Handle tissues gently with appropriate instruments. • Assist helpfully, even when the operation is not familiar. • Understand the principles of anastomosis • Understand the principles of endoscopy		
Knowledge	Principles of safe surgery • Preparation of the surgeon for surgery • Principles of hand washing, scrubbing and gowning • Immunisation protocols for surgeons and patients Administration of local anaesthesia • Choice of anaesthetic agent • Safe practise Surgical wounds • Classification of surgical wounds • Principles of wound management • Pathophysiology of wound healing • Scars and contractures • Incision of skin and subcutaneous tissue: o Langer's lines o Choice of instrument o Safe practice • Closure of skin and subcutaneous tissue: o Options for closure o Suture and needle choice • Safe practice • Knot tying o Range and choice of material for suture and ligation o Safe application of knots for surgical sutures and ligatures • Haemostasis: o Surgical techniques o Principles of diathermy • Tissue handling and retraction: o Choice of instruments • Biopsy techniques including fine needle aspiration cytology • Use of drains:		Strongly recommended: Basic surgical skills Tissue handling/suturing Strongly recommended (Paediatric Surgery): • Basic suturing and wound management Desirable (Cardiothoracic Surgery / Plastic Surgery): • Anastomosis • Endoscopy

	○ Indications ○ Types ○ Management/removal • Principles of anastomosis • Principles of surgical endoscopy		
Clinical Skills	4 Preparation of the surgeon for surgery • Effective and safe hand washing, gloving and gowning • Administration of local anaesthesia • Accurate and safe administration of local anaesthetic agent 4 Preparation of a patient for surgery • Creation of a sterile field • Antisepsis • Draping		
Technical Skills and Procedures	4 Preparation of the surgeon for surgery • Effective and safe hand washing, gloving and gowning 4 Administration of local anaesthesia • Accurate and safe administration of local anaesthetic agent 4 Incision of skin and subcutaneous tissue: • Ability to use scalpel, diathermy and scissors 4 Closure of skin and subcutaneous tissue: • Accurate and tension free apposition of wound edges 4 Knot tying: • Single handed • Double handed • Instrument • Superficial • Deep 3 Haemostasis: • Control of bleeding vessel (superficial) • Diathermy • Suture ligation • Tie ligation • Clip application • Transfixion suture 4 Tissue retraction: • Tissue forceps		

	• Placement of wound retractors 3 Use of drains: • Insertion • Fixation • Removal 3 Tissue handling: • Appropriate application of instruments and respect for tissues • Biopsy techniques 4 Skill as assistant: • Anticipation of needs of surgeon when assisting		

Module 4	**The assessment and management of the surgical patient**	**Assessment technique**	**Areas in which simulation should be used to develop relevant skills**
Objective	To demonstrate the relevant knowledge, skills and attitudes in assessing the patient and manage the patient, and propose surgical or non-surgical management.	Examinations- MRCS	
Knowledge	The knowledge relevant to this section will be variable from patient to patient and is covered within the rest of the syllabus – see common surgical conditions in particular (Module 2). As a trainee develops an interest in a particular speciality then the principles of history taking and examination may be increasingly applied in that context.		Strongly recommended: Life Support Critical Care ATLS / APLS Desirable: Team working Human Factors
Clinical Skills	4 Surgical history and examination (elective and emergency) 3 Construct a differential diagnosis 3 Plan investigations 3 Clinical decision making 3 Team working and planning 3 Case work up and evaluation; risk management 3 Active participation in clinical audit events 3 Appropriate prescribing 3 Taking consent for intermediate level intervention; emergency and elective 3 Written clinical communication skills 3 Interactive clinical communication skills: patients 3 Interactive clinical communication skills: colleagues		

Module 5	Peri-operative care	Assessment technique	Areas in which simulation should be used to develop relevant skills
Objective	To assess and manage preoperative risk To manage patient care in the peri-operative period To conduct safe surgery in the operating theatre environment To assess and manage bleeding including the use of blood products To care for the patient in the post-operative period including the assessment of common complications To assess, plan and manage post-operative fluid balance To assess and plan perioperative nutritional management To prevent, recognise and manage delirium in the surgical patient within the appropriate legal framework in place across the UK (see **footnote**). **Footnote** The relevant legislation includes: • Mental Capacity Act (2005) • Mental Health Act (1983 and 2007) • Adults with Incapacity (Scotland) Act (2000) • Mental Health (Care and Treatment) (Scotland) Act (2003) • Adult Support and Protection (Scotland) Act (2007)	WBA Course test completion certificate	
Knowledge	Pre-operative assessment and management: • Cardiorespiratory physiology • Diabetes mellitus and other relevant endocrine disorders • Fluid balance and homeostasis • Renal failure • Pathophysiology of sepsis – prevention and prophylaxis • Thromboprophylaxis • Laboratory testing and imaging • Risk factors for surgery and scoring systems • Pre-medication and other preoperative prescribing • Principles of day surgery Intraoperative care: • Safety in theatre including		Strongly recommended: Basic surgical skills Life Support Critical Care Strongly recommended (Paediatric Surgery): • Safe surgery Desirable Human Factors Team-working

	patient positioning and avoidance of nerve injuries • Sharps safety • Diathermy, laser use • Infection risks • Radiation use and risks • Tourniquet use including indications, effects and complications • Principles of local, regional and general anaesthesia • Principles of invasive and non-invasive monitoring • Prevention of venous thrombosis • Surgery in hepatitis and HIV carriers • Fluid balance and homeostasis Post-operative care: • Post-operative monitoring • Cardiorespiratory physiology • Fluid balance and homeostasis • Diabetes mellitus and other relevant endocrine disorders • Renal failure • Pathophysiology of blood loss • Pathophysiology of sepsis including SIRS and shock • Multi-organ dysfunction syndrome • Post-operative complications in general • Methods of postoperative analgesia To assess and plan nutritional management • Post-operative nutrition • Effects of malnutrition, both excess and depletion • Metabolic response to injury • Methods of screening and assessment of nutritional status • Methods of enteral and parenteral nutrition Haemostasis and Blood Products: • Mechanism of haemostasis including the clotting cascade • Pathology of impaired haemostasis e.g. haemophilia, liver disease, massive haemorrhage • Components of blood • Alternatives to use of blood products • Principles of administration of		

	blood products • Patient safety with respect to blood products Coagulation, deep vein thrombosis and embolism: • Clotting mechanism (Virchow Triad) • Effect of surgery and trauma on coagulation • Tests for thrombophilia and other disorders of coagulation • Methods of investigation for suspected thromboembolic disease • Principles of treatment of venous thrombosis and pulmonary embolism including anticoagulation • Role of V/Q scanning, CTpulmonary angiography, D-dimer and thrombolysis • Place of pulmonary embolectomy • Prophylaxis of thromboembolism: • Risk classification and management of DVT • Knowledge of methods of prevention of DVT, mechanical and pharmacological Antibiotics: • Common pathogens in surgical patients • Antibiotic sensitivities • Antibiotic side-effects • Principles of prophylaxis and treatment Metabolic and endocrine disorders in relation perioperative management • Pathophysiology of thyroid hormone excess and deficiency and associated risks from surgery • Causes and effects of hypercalcaemia and hypocalcaemia • Complications of corticosteroid therapy • Causes and consequences of Steroid insufficiency • Complications of diabetes mellitus • Causes and effects of hyponatraemia • Causes and effects of hyperkalaemia and		

	hypokalaemia Delirium • Epidemiology and prognosis of delirium • Causes and clinical features of delirium • The impact of delirium on patient, family and carers		
Clinical Skills	3 Pre-operative assessment and management: • History and examination of a patient from a medical and surgical standpoint • Interpretation of pre-operative investigations • Management of co morbidity • Resuscitation • Appropriate preoperative prescribing including premedication 3 Intra-operative care: • Safe conduct of intraoperative care • Correct patient positioning • Avoidance of nerve injuries • Management of sharps injuries • Prevention of diathermy injury • Prevention of venous thrombosis 3 Post-operative care: • Writing of operation records • Assessment and monitoring of patient's condition • Post-operative analgesia • Fluid and electrolyte management • Detection of impending organ failure • Initial management of organ failure • Principles and indications for Dialysis • Recognition, prevention and treatment of post-operative complications 3 Haemostasis and Blood Products: • Recognition of conditions likely to lead to the diathesis • Recognition of abnormal bleeding during surgery • Appropriate use of blood products • Management of the complications of blood product		

	transfusion 3 Coagulation, deep vein thrombosis and embolism • Recognition of patients at risk • Awareness and diagnosis of pulmonary embolism and DVT • Role of duplex scanning, venography and d-dimer measurement • Initiate and monitor treatment of venous thrombosis and pulmonary embolism • Initiation of prophylaxis 3 Antibiotics: • Appropriate prescription of antibiotics 3 Assess and plan preoperative nutritional management • Arrange access to suitable artificial nutritional support, preferably via a nutrition team including Dietary supplements, Enteral nutrition and Parenteral nutrition 3 Metabolic and endocrine disorders • History and examination in patients with endocrine and electrolyte disorders • Investigation and management of thyrotoxicosis and hypothyroidism • Investigation and management of hypercalcaemia and hypocalcaemia • Peri-operative management of patients on steroid therapy • Peri-operative management of diabetic patients • Investigation and management of hyponatraemia • Investigation and management of hyperkalaemia and hypokalaemia Delirium 3 Assessment of cognitive impairment seeking to differentiate dementia from delirium, with the knowledge that delirium is common in people with dementia 3 Management of patients with delirium including addressing triggers and using non-pharmacological and pharmacological methods where appropriate		

	3 Explanation of delirium to patients and advocates		
Technical Skills and Procedures	2 Central venous line insertion 4 Urethral catheterisation		Strongly recommended (Paediatric Surgery) Desirable

Module 6	**Assessment and management of patients with trauma (including the multiply injured patient)**	**Assessment technique**	**Areas in which simulation should be used to develop relevant skills**
Objective	Assess and initiate management of patients with chest trauma • who have sustained a head injury • who have sustained a spinal cord injury • who have sustained abdominal and urogenital trauma • who have sustained vascular trauma • who have sustained a single or multiple fractures or dislocations • who have sustained traumatic skin and soft tissue injury • who have sustained burns • Safely assess the multiply injured patient. • Contextualise any combination of the above • Be able to prioritise management in such situation as defined by ATLS, APLS etc It is expected that trainees will be able to show evidence of competence in the management of trauma (ATLS / APLS certificate or equivalent).	WBA Course test and certificate	
Knowledge	General • Scoring systems for assessment of the injured patient • Major incident triage • Differences In children Shock • Pathogenesis of shock • Shock and cardiovascular physiology • Metabolic response to injury • Adult respiratory distress syndrome • Indications for using uncross matched blood		Strongly recommended: Life Support Critical Care Wound management ATLS / APLS Desirable: Team-working Human Factors Trauma management

	Wounds and soft tissue injuries • Gunshot and blast injuries • Stab wounds • Human and animal bites • Nature and mechanism of soft tissue injury • Principles of management of soft tissue injuries • Principles of management of traumatic wounds • Compartment syndrome Burns • Classification of burns • Principle of management of burns Fractures • Classification of fractures • Pathophysiology of fractures • Principles of management of fractures • Complications of fractures • Joint injuries Organ specific trauma • Pathophysiology of thoracic trauma • Pneumothorax • Head injuries including traumatic intracranial haemorrhage and brain injury • Spinal cord injury • Peripheral nerve injuries • Blunt and penetrating abdominal trauma • Including spleen • Vascular injury including iatrogenic injuries and intravascular drug abuse • Crush injury • Principles of management of skin loss including use of skin grafts and skin flaps		
Clinical Skills	General 4 History and examination 3 Investigation 3 Referral to appropriate surgical subspecialties 4 Resuscitation and early management of patient who has sustained thoracic, head, spinal, abdominal or limb injury according to ATLS and APLS guidelines 4 Resuscitation and early management of the multiply injured		

	patient 3 Specific problems • Management of the unconscious patient • Initial management of skin loss • Initial management of burns • Prevention and early management of the compartment syndrome		
Technical Skills and Procedures	2 Central venous line insertion 3 Chest drain insertion 2 Diagnostic peritoneal lavage 4 Urethral catheterisation 2 Suprapubic catheterisation		Desirable

Module 7	**Surgical care of the Paediatric patient**	**Assessment technique**	**Areas in which simulation should be used to develop relevant skills**
Objective	To assess and manage children with surgical problems, understanding the similarities and differences from adult surgical patients To understand the issues of child protection and to take action as appropriate	WBA MRCS	
Knowledge	• Physiological and metabolic response to injury and surgery • Fluid and electrolyte balance • Thermoregulation Safe prescribing in children • Principles of vascular access in children • Working knowledge of trust and Local Safeguarding Children Boards (LSCBs) and Child Protection Procedures • Basic understanding of child protection law • Understanding of Children's rights • Working knowledge of types and categories of child maltreatment, presentations, signs and other features (primarily physical, emotional, sexual, neglect, professional) • Understanding of one personal role, responsibilities and appropriate referral patterns in child protection • Understanding of the challenges of working in partnership with children and families • Recognise the possibility of		Strongly recommended: Critical Care Child protection Desirable Team-working

	abuse or maltreatment • Recognise limitations of own knowledge and experience and seek appropriate expert advice • Urgently consult immediate senior in surgery to enable referral to paediatricians • Keep appropriate written documentation relating to child protection matters • Communicate effectively with those involved with child protection, including children and their families		
Clinical Skills	3 History and examination of the neonatal surgical patient 3 History and examination of paediatric surgical patient 3 Assessment of respiratory and cardiovascular status 3 Undertake consent for surgical procedures (appropriate to the level of training) in paediatric patients		

Module 8	**Management of the dying patient**	**Assessment technique**	**Areas in which simulation should be used to develop relevant skills**
Objective	Ability to manage the dying patient appropriately. To understand consent and ethical issues in patients certified DNAR (do not attempt resuscitation) Palliative Care: Good management of the dying patient in consultation with the palliative care team.	MRCS	
Knowledge	Palliative Care: • Care of the terminally ill • Appropriate use of analgesia, antiemetics and laxatives Principles of organ donation: • Circumstances in which consideration of organ donation is appropriate • Principles of brain death Understanding the role of the coroner and the certification of death		Desirable Team-working Human Factors
Clinical Skills	3 Palliative Care: • Symptom control in the terminally ill patient 3 Principles of organ donation: • Assessment of brain stem death • Certification of death		Strongly recommended (Paediatric Surgery: • Ethical issues • Palliative care • Communication

Module 9	**Organ and Tissue transplantation**	**Assessment technique**	**Areas in which simulation should be used to develop relevant skills**
Objective	To understand the principles of organ and tissue transplantation	MRCS	
Knowledge	• Principles of transplant immunology including tissue typing, acute, hyperactute and chronic rejection • Principles of immunosuppression • Tissue donation and procurement • Indications for whole organ transplantation		

Module 10	**Health Promotion**
General Aspects	
Objective	This syllabus module aims to enable all surgical trainees to develop the competencies necessary to support patients in caring for themselves, to empower them to improve and maintain their own health.
Knowledge	• Damaging health and social issues such as excessive alcohol consumption, obesity, smoking and illicit drugs and the harmful effects they have on health • The connection between mental health and physical health • The importance of health education for promoting self-care for patients
Clinical Skills	3 Modification of explanations to match the intellectual, social and cultural background of individual patients 3 Patient centred care 4 Identification and utilisation of opportunities to promote health
Reference to other relevant syllabus items	• Nutrition (Module 5, Perioperative Care) • Drugs and alcohol (Module 1, Pharmacology) • Screening (Module 1, Pathology) • Child protection (Module 7, Surgical Care of the Paediatric Patient)
Obesity	
Objective	• Recognise the health risks posed by obesity including an increased incidence of coronary heart disease, type 2 diabetes, hypertension, stroke, and some major cancers. • Assess and explain the higher risks for obese individuals undergoing surgery.
Knowledge	• Classification of excess body mass • Social, psychological and environmental factors that underpin obesity • Physiological and metabolic effects of obesity on the surgical patient • Available treatments for obesity including diet, exercise, medication and surgery
Clinical Skills	4 The ability to treat patients who are obese in a supportive and sensitive manner 3 Management of cardiovascular, respiratory and metabolic complications in patients with obesity undergoing surgery 2 Provide advice and guidance about weight loss to overweight and obese patients within the context of a multidisciplinary team

Dementia	
Objective	• Adapt surgical treatment in order to deliver high quality and person-centred care for patients with dementia • Apply the appropriate legal framework to the treatment of patients with cognitive impairment
Knowledge	• Clinical features of dementia and the distinction between it and delirium • The impact of dementia on patient, family and carers • Principles and key provisions of the relevant legislation regarding the safeguarding of vulnerable adults across the UK (see **footnote**).
Clinical Skills	3 Recognises cognitive impairment and appropriately refers 2 Management of surgical patients in the context of their dementia 4 A range of techniques and strategies to communicate effectively with people with dementia and their carers/families 4 Assessment of capacity, involvement of advocates and documentation of consent and best interests in accordance with current legislation in place across the nations of the UK (see **footnote**). **Footnote** The relevant legislation includes: • Mental Capacity Act (2005) • Mental Health Act (1983 and 2007) • Adults with Incapacity (Scotland) Act (2000) • Mental Health (Care and Treatment) (Scotland) Act (2003) • Adult Support and Protection (Scotland) Act (2007).
Exercise and physical fitness	
Objective	• Promote the use of exercise in the prevention and management of long term chronic conditions such as coronary heart disease, diabetes, hypertension, obesity, cancer, osteoporosis, peripheral vascular disease and depression and the promotion of health and well being
Knowledge	• Physical inactivity as an independent risk factor for ill health and obesity • Relationship between physical exercise programmes and healthy eating and smoking cessation programmes • Government behaviour change programmes such as 'Let's Get Moving' and 'Shift into Sports'
Clinical Skills	4 Utilisation of all patient interactions as opportunities for health and fitness promotion 4 Modification of advice on physical exercise to the specific requirements of individual patients

In addition, in the early years of training, trainees must address early years competencies of the Professional skills and Leadership syllabus on pages 101-123.

Requirement to meet the ST3 in Otolaryngology

In order to meet the job specifications of an ST3 trainee an early years trainee must take a clear role in the Otolaryngology team, managing clinic and ward based patients under supervision, including the management of acute admissions. They will need to be able to take part in an outpatient clinic and see both new and old patients themselves with the consultant available for advice.

Therefore in early years training, IN ADDITION to the generic competencies for all surgeons, it is necessary to address the specifics of a developing interest in Otolaryngology during these years. This means spending at least six months and preferably 12 months in Otolaryngology with appropriate sub-specialty experience in a service, which gives trainees access to the appropriate learning opportunities. Experience in specialties complementary to Otolaryngology is also desirable. Also by the time a trainee enters ST3 they need to be familiar with the operating theatre environment both with respect to elective and emergency cases.

Trainees must attend MDT and other Departmental meetings and ward rounds, prepare elective operating lists (both inpatient and day-case), and actually perform some surgery under appropriate supervision. They must manage all patients in the ward environment, both preoperatively and post operatively. This includes recognising and initiating the management of common complications and emergencies, over and above those already laid out in the generic curriculum, particularly module 2.

1. Elective otology
To understand the aetiology, presenting symptoms, signs and management of common conditions including deafness in adults, facial paralysis, tinnitus, trauma, dizziness, middle ear infections, non infective conditions of the external ear and infective conditions of the external ear. To understand the principles of audiological assessment.

2. Paediatric otolaryngology
To understand the aetiology, presenting symptoms, signs and management of common conditions including neck masses, airway disorders, congenital deformities affecting the head and neck, deafness including otitis media and its complications, facial palsy, otitis media and its complications, disorders of the external ear, nose and sinus infections, inflammatory nasal disease, nasal polyps, foreign bodies in the ear nose and throat, epistaxis, trauma to the head and neck, disease of the tonsils and adenoids, oncology and speech and language development.

3. Disease of the head and neck
To understand the aetiology, presenting symptoms, signs and management of common conditions including congenital abnormalities of the head and neck, oral pathology, airway obstruction, voice disorders, disorders of swallowing, sleep related breathing disorders, adenoid and tonsillar pathology, benign and neoplastic salivary gland disease, thyroid and parathyroid disease, malignancies in the upper aerodigestive tract including the oral cavity (although they do not necessarily treat these, they will be involved in diagnosis and MDT management, craniocervical trauma in adults, cervical sepsis, lymphadenopathy and other neck lumps.

4. Elective Rhinology
To understand the aetiology, presenting signs, symptoms and management of common conditions including congenital abnormalities, nose and sinus infections and inflammation, nasal polyps, facial pain, epistaxis, nasal trauma and deformity, rhinological oncology, granulomatous conditions, septal and rhinoplasty surgery including some understanding of the role of cosmetic surgery and reconstruction. To understand the general concepts behind sinonasal surgery for infection.

5. Emergency otolaryngology
To understand the aetiology, presenting signs, symptoms and management of common conditions including simple epistaxis, otitis externa, auricular trauma, foreign bodies in the ear, nose and oropharynx, acute oropharyngeal infections and simple fractures of the facial skeleton. To understand the principles of acute airway obstruction and its management including tracheostomy.

The levels of knowledge and skills required for trainees to progress to ST3 in Otolaryngology are set out in the topic boxes below

OTOLOGY

Topic	Non-infective, acquired lesions of the pinna and external ear canal	Simulation
Category	Otology	
Sub-category:	Non infective conditions of the external ear	
Objective	*To understand the aetiology, pathology, presentation and management of non-infective conditions of the external ear.*	
Knowledge	2 systemic conditions affecting external ear 4 Anatomy, physiology and pathology of the external ear and relationship of disease to the temporal bone 2 dermatological conditions of the external ear 2 pharmacology of medications used in treatment 2 aetiology, pathology, presentation and management of benign tumours of the pinna and external ear canal 2 aetiology, pathology, presentation and management of malignant tumours of the pinna and external ear canal 1 aetiology of acquired atresia of the external auditory meatus 1 pathogenesis of effects of ionizing radiation of the ear and temporal bone 1 aetiology, pathology, presentation and management of osteoma / exostosis 4 management of foreign bodies 3 understand the implications and management of trauma to the pinna 2 Management including medical and surgical options as appropriate	
Clinical Skills	HISTORY AND EXAMINATION 4 obtain appropriate history 4 clinical examination 4 Otoscopy 4 microscopy DATA INTERPRETATION 3 interpretation of audiological investigations 2 awareness and interpretation of radiological investigations	
Technical Skills and Procedures	4 Aural toilet including microsuction and application of dressings 1 Biopsy of lesion of external ear 3 Otomicroscopy and removal of FB's 2 Drainage of haematoma of pinna 3 Suturing of pinna	Strongly recommended: Otomicroscopy Desirable

Topic	Infective conditions of the pinna and external ear canal.	Areas in which simulation should be used to develop relevant skills
Category	Otology	
Sub-category:	Infective conditions of the external ear & pinna including otitis externa, furunculosis, otomycosis, viral infections, chondritis and cellulitis	
Objective	*To understand the aetiology, pathology, presentation and management of infective conditions of the external ear.*	
Knowledge	4 Anatomy, physiology and pathology of the external ear and relationship of disease to the temporal bone. 3 The pathogenesis of infective disorders of the external ear & pinna 2 Necrotising otitis externa 2 Microbiology of external ear and pinna 3 Knowledge of antimicrobial and antiviral agents and relevant pharmacology of medications used in treatment. 3 Differential diagnosis of infective/inflammatory conditions . 3 Management including medical and surgical options as appropriate	
Clinical Skills	HISTORY AND EXAMINATION 4 obtain appropriate history 4 clinical examination 4 Otoscopy 4 microscopy DATA INTERPRETATION 1 Awareness and interpretation of radiological investigations 2 Awareness and interpretation of microbiological investigations	
Technical Skills and Procedures	4 Microscopy 4 suction clearance 2 Drainage of abscess 1 biopsy of lesion of external ear canal	Strongly recommended Otomicroscopy

Topic	Otological Trauma	Areas in which simulation should be used to develop relevant skills
Category	Otology	
Sub-category:	Trauma	
Objective	*To understand the aetiology, presenting signs, symptoms and management of trauma of the external, middle and inner ear including the temporal bone. This module gives some indication of the breadth and depth of required knowledge and surgical skills.*	
Knowledge	4 Anatomy, physiology and pathology of the ear and auditory pathways. 2 The effects of trauma on the pinna, ear canal, tympanic membrane, middle ear, otic capsule and temporal bone. 3 The effects and assessment of poly-trauma and neurological injury. 1 The effects of barotrauma 1 The surgical and non-surgical management of trauma of the external, middle and inner ear. 4 Glasgow Coma Scale	

	4 Facial nerve grading systems	
Clinical Skills	HISTORY AND EXAMINATION 4 obtain appropriate history 4 clinical examination including neurological assessment 4 Otoscopy 4 microscopy 2 Audiological and vestibular assessment DATA INTERPRETATION 2 objective and subjective audiological tests 1 Radiological imaging of the temporal bone, head and neck PATIENT MANAGEMENT 1 Be able to advise the patient of the treatment options, discuss risks and potential benefits, potential complications 3 To work where appropriate in a multidisciplinary team liaise with other professional and organisations 3 The importance of teamwork in managing critically ill patients	
Technical Skills and Procedures	4 Microscopy 4 Suction clearance of ear 3 Drainage of haematoma of pinna 3 Suturing of pinna	Strongly recommended Otomicroscopy

Topic	**Acute otitis media and sequelae**	**Areas in which simulation should be used to develop relevant skills**
Category	Otology	
Sub-category:	Middle ear	
Objective	*To understand the aetiology, presenting signs, symptoms and management of acute infection of the middle ear. This module gives some indication of the breadth and depth of required knowledge and surgical skills.*	
Knowledge	4 Anatomy, physiology and pathology of the ear and temporal bone 3 The microbiology related to acute ear infections. 2 Complications of acute otitis media including mastoiditis, lateral sinus thrombosis, meningitis and intracranial abscess 1 Indications for laboratory and radiological investigations 3 Differential diagnosis of acute otitis media and complications. 2 Medical and surgical management options 1 Relevant pharmacology of medications used in medical treatment	
Clinical Skills	HISTORY AND EXAMINATION 4 obtain appropriate history 4 clinical examination including neurological assessment 4 Otoscopy 4 microscopy 2 Audiological assessment DATA INTERPRETATION	

	1 Interpretation of radiological investigations PATIENT MANAGEMENT 3 To work where appropriate in a multidisciplinary team liaise with other professional and organisations 3 The importance of teamwork in managing critically ill patients	
Technical Skills and Procedures	4 microsuction 2 myringotomy and grommet insertion	Strongly recommended Myringotomy & Grommet insertion

Topic	**Chronic suppurative otitis media and sequelae**	**Areas in which simulation should be used to develop relevant skills**
Category	Otology	
Sub-category:	Middle ear	
Objective	*To understand the aetiology, presenting signs, symptoms and management of chronic infection/inflammation of the middle ear. This module gives some indication of the breadth and depth of required knowledge and surgical skills.*	
Knowledge	4 Anatomy, physiology and pathology of the ear and temporal bone 2 Definition and classification of chronic middle ear disease, including cholesteatoma, retraction pockets, perforations, otitis media with effusion and myringitis. 1 Aetiology and pathophysiology of chronic middle ear disease 2 The microbiology related to chronic middle ear disease 2 Complications of chronic middle ear disease 2 Principles and practice of audiology including pure tone audiometry, tympanometry 1 Principles of specialist audiological investigations including speech audiometry, otoacoustic emissions and evoked response audiometry. 1 Indications for radiological investigations 2 Pharmacology of medications used in medical treatment 2 Medical and surgical management options	
Clinical Skills	HISTORY AND EXAMINATION 4 obtain appropriate history 4 clinical examination including neurological assessment 4 Otoscopy 4 microscopy 2 Audiological assessment DATA INTERPRETATION 2 Interpretation of audiological investigations 1 Interpretation of radiological investigations	
Technical Skills and Procedures	4 microsuction 2 myringotomy and grommet 2 T tube insertion 2 Grommet removal 1 myringoplasty 1 cortical mastoidectomy	Strongly recommended Myringotomy & Grommet insertion

	1 modified radical mastoidectomy	

Topic	Adult hearing loss	Areas in which simulation should be used to develop relevant skills
Category	Otology	
Sub-category:	Deafness in adults	
Objective	*To understand the aetiology, presenting signs, symptoms and management of adults who present with conductive, mixed, progressive or sudden onset of sensorineural deafness. This module gives some indication of the breadth and depth of required knowledge, clinical and surgical skills.*	
Knowledge	3 Embryology of the ear 4 Anatomy, physiology and pathology of the ear and auditory pathways. 1 Principles of acoustics and measurement of sound. 2 Principles and practice of audiology including pure tone audiometry, speech audiometry and electrophysiological tests and other objective tests of hearing including oto-acoustic emissions 1 Indications for radiological investigation of hearing loss 2 The genetics of otological diseases 3 Differential diagnosis, aetiology and management of conductive hearing loss including external/middle ear disorders and otosclerosis. 3 Differential diagnosis, aetiology and management of sensorineural hearing loss including noise induced hearing loss, presbyacusis, menieres disease autoimmune diseases and retro-cochlear pathology. 2 Aetiology, investigation and management of acute sensorineural hearing loss 1 Central auditory processing disorders, auditory neuropathy, obscure auditory dysfunction 2 Auditory rehabilitation including the use of hearing aids and other assistive devices. 2 Social and psychological issues of deafness 2Principles of non-auditory communication 1 Principles of surgical reconstruction. 1 Management of severe/ profound hearing loss. 1 Principles and indications for cochlear implants, middle ear implants and bone anchored hearing aids.	
Clinical Skills	HISTORY AND EXAMINATION 4 obtain appropriate history 4 clinical examination 4 Otoscopy 4 microscopy 2 Audiological assessment DATA INTERPRETATION 2 Interpretation of audiological investigations 1 Interpretation of radiological investigations 2 Interpretation of laboratory investigations PATIENT MANAGEMENT 3 Demonstrate communication skills and empathy 3 Be able to advise the patient of the treatment options, discuss risks and potential benefits, potential complications 3 To work where appropriate in a multidisciplinary team liaise with other	

	professional and organisations 2 Principles of a holistic approach to the management of hearing loss	
Technical Skills and Procedures	4 Microscopy 4 Microscution 1 Myringoplasty 1 Tympanoplasty/ Ossiculoplasty 1 Stapedectomy 1 Bone Anchored Hearing Aid	Strongly recommended: Otomicroscopy

Topic	**Tinnitus**
Category	Otology
Sub-category:	Tinnitus
Objective	*To understand the aetiology, presenting signs, symptoms and management of tinnitus. This module gives some indication of the breadth and depth of required knowledge, clinical and surgical skills.*
Knowledge	4 Anatomy, physiology and pathology of the ear and auditory pathways. 2 Causes of objective tinnitus eg palatal myoclonus, tumours, arteriovenous malformations 1 The psychological effects of tinnitus 1 Principles of tinnitus retraining and rehabilitation and the principles of support and counselling 1 Principles of hearing aid(s) and masking
Clinical Skills	HISTORY AND EXAMINATION 4 obtain appropriate history 4 clinical examination 4 Otoscopy DATA INTERPRETATION 1 Interpretation of radiology PATIENT MANAGEMENT 3 Demonstrate communication skills and empathy. 1 Be able to advise the patient of the treatment options, discuss risks and potential benefits. 1 To liaise with other organisations and professionals including audiologists, hearing therapists and clinical psychologists
Technical Skills and Procedures	

Topic	**Facial palsy**	**Areas in which simulation should be used to develop relevant skills**
Category	Otology	
Sub-category:	Facial Paralysis	
Objective	*To understand the aetiology, presenting signs, symptoms and management of facial nerve palsy. This module gives some*	

	indication of the breadth and depth of required knowledge, clinical and surgical skills.	
Knowledge	4 The anatomy and physiology of facial nerve and related structures 2 The aetiology, classification and neuro-physiology of facial paralysis 1 Indications for investigations including radiology, electrophysiology and laboratory tests. 1 Management of acute and chronic facial nerve palsy 2 Management and prevention of ocular complications 1 Principles of peri-operative facial nerve monitoring 3 Facial nerve grading systems	
Clinical Skills	HISTORY AND EXAMINATION 4 obtain appropriate history 4 clinical examination including assessment of facial nerve function 4 Otoscopy DATA INTERPRETATION 1 Interpretation of radiological tests 2 Interpretation of laboratory investigations PATIENT MANAGEMENT 3 Demonstrate communication skills and empathy 1 Appreciate the psychological effects of facial disfigurement 2 Be able to liaise with other health care professionals.	
Technical Skills and Procedures	1 Setup and use of intra-operative facial nerve monitor	

Topic	**Disorders of balance**	**Areas in which simulation should be used to develop relevant skills**
Category	Otology	
Sub-category:		
Objective	*To understand the aetiology, presenting signs, symptoms and management of patients with disordered balance. This module gives some indication of the breadth and depth of required knowledge, clinical and surgical skills. The list should not be considered to be fully inclusive or exhaustive*	
Knowledge	4 Anatomy and physiology related to maintenance of balance including the vestibular system, visual, locomotor, central nervous and cardiovascular systems 2 The pathology and various hypotheses relating to the aetiology and management of sudden vestibular failure, Ménière's disease, benign paroxysmal vertigo, vestibular schwannoma, pharmacological and metabolic side effects 1 The handicaps related to age related sensory and proprioceptive degeneration	

	1 Psychological aspects of dizziness 2 Appropriate investigations for balance disorders including audiological, radiological, laboratory and vestibular tests. 1 The law as it relates to disorders of balance 1 The principles of vestibular rehabilitation 2 The principles of particle repositioning manoeuvres 1 Medical, non-surgical and surgical treatment options	
Clinical Skills	HISTORY AND EXAMINATION 4 obtain appropriate history 4 clinical examination including neurological and vestibular assessment 4 Otoscopy DATA INTERPRETATION 2 Interpretation of audiological tests 2 Interpretation of radiological and laboratory tests PATIENT MANAGEMENT 3 Demonstrate communication skills and empathy 3 To liaise with other professional and organisations	
Technical Skills and Procedures	2 Perform particle re-positioning manoeuvres 2 Myringotomy and grommet 1 Intratympanic instillation of drugs	Strongly recommended Myringotomy & Grommet insertion

Topic	**Lateral skull base tumours**
Category	Otology
Sub-category:	Head and neck neoplasia
Objective	*To understand the aetiology, presenting signs, symptoms and management of lateral skull base neoplasia. This module gives some indication of the breadth and depth of required knowledge, clinical and surgical skills. The list should not be considered to be fully inclusive or exhaustive.*
Knowledge	4 Anatomy of the skull base and neck 4 Anatomy of the inner, middle and external ear 4 Anatomy of the cranial nerves 1 Pathology and pathogenesis of skull base tumours 1 The clinical presentation of skull base tumours
Clinical Skills	HISTORY AND EXAMINATION 2 obtain appropriate history 2 clinical examination including neurological assessment 4 Otoscopy DATA INTERPRETATION 2 Interpretation of audiological tests 2 Interpretation of radiological and laboratory tests PATIENT MANAGEMENT 3 Demonstrate communication skills and empathy

Paediatric Otolaryngology

Topic	Foreign bodies in the ear canal and UADT	Areas in which simulation should be used to develop relevant skills
Category	Paediatric Otolaryngology	
Sub-category:	Foreign bodies in the ear nose and throat	
Objective	*Safe definitive management of children with suspected and actual foreign bodies in the ear nose and pharynx; primary management of inhaled foreign bodies to facilitate safe transfer for tracheobronchoscopy if required.*	
Knowledge	3 Anatomy of the paediatric airway 3 Physiology of the paediatric airway 2. Recognition of anatomical differences between the adult and paediatric airway. 3 Recognition of the clinical features of foreign bodies in the ear nose and throat 2 Knowledge of the natural history and the complications associated with foreign bodies. 2 Concept of the shared airway and differing anaesthetic techniques	
Clinical Skills	HISTORY AND EXAMINATION 3 Ability to take a thorough history from the child/carer 3 Otoscopy 3 Anterior rhinoscopy 1 Flexible pharyngolaryngoscopy DATA INTERPRETATION 2 Assessment of plain radiography (e.g. chest x-ray and soft tissue neck x-ray) PATIENT MANAGEMENT 3 Recognition of the clinical signs of respiratory distress in children 1 Emergency airway care in conjunction with anaesthetists and paediatricians.	Desirable APLS PILS
Technical Skills and Procedures	3 Otomicroscopy and removal of foreign body 2 Removal of nasal foreign body 1 Pharyngo-oesophagoscopy and foreign body removal	Strongly recommended Otomicroscopy

Topic	Trauma to the ear, upper aero digestive tract and neck	Areas in which simulation should be used to develop relevant skills
Category	Paediatric Otolaryngology	
Sub-category:	Trauma to the head and neck	
Objective	*To be competent in the recognition of paediatric head and neck trauma and its management. To recognise when to refer complicated cases for further assessment and treatment.*	
Knowledge	3 Anatomy of the head and neck in children 2 Recognition of anatomical differences between the adult and paediatric airway 2. Mechanisms of trauma to the facial skeleton and soft tissues 2 Know the causes and presentation of nasal septal haematoma 2 Know the causes and presentation of ear trauma (external, middle and inner) 2 Know the causes and presentation of trauma to the neck, pharynx and larynx 2 Knowledge of common aetiologies and awareness of the possible presentations of non-accidental injury to the ENT department. 3 Understand how child abuse is classified, how it may present to otolaryngologists and the mechanism of onward referral and management	
Clinical Skills	HISTORY AND EXAMINATION 3 Ability to take a thorough history from child/parent 3 Assessment of the external nose and nasal airway 3 Clinical examination of the ear 2 Assessment of the neck including the airway 3 Otoscopy DATA INTERPRETATION 2 Age appropriate hearing test, tympanometry PATIENT MANAGEMENT 3 Recognition of the signs of respiratory distress in a child 2 Resuscitation of a child in hypovolaemic shock secondary to bleeding 4 Aware of the local protocol for the reporting of suspected non-accidental injury	Desirable PILS APLS
Technical Skills and Procedures	2 Nasal fracture manipulation 1 Laryngoscopy, Pharyngoscopy 2 Drainage of septal haematoma 2 Drainage of haematoma of pinna	

Topic	**Epistaxis in a child**
Category	Paediatric Otolaryngology
Sub-category:	Epistaxis
Objective	*Optimum recognition and management of children with epistaxis;*
Knowledge	3 Nasal anatomy 3 Nasal physiology 3 Pathophysiology, epidemiology, & natural history of paediatric epistaxis 3 Current approach to treatment of epistaxis to include awareness of the evidence base for current treatment regimens. 2 Understand the aetiologies of paediatric epistaxis (local including nasopharyngeal angiofibroma, and systemic including coagulopathies) 2 Know the relevant investigation and treatments of paediatric epistaxis
Clinical Skills	HISTORY AND EXAMINATION 3 Ability to take a thorough history from the child/carer 3 Anterior Rhinoscopy 1 Flexible Nasendoscopy DATA INTERPRETATION 2 Interpretation of full blood count & other haematological investigations; awareness of significance of coagulation tests PATIENT MANAGEMENT 2 Medical and surgical management of epistaxis
Technical Skills and Procedures	2 Nasal cautery 2 EUA nose 1 Appropriate nasal packing in a child

Topic	**Rhinosinusitis; orbital and intracranial complications of rhinosinusitis**
Category	Paediatric Otolaryngology
Sub-category:	Nose and Sinus infections
Objective	*Optimum recognition and management of children with rhinosinusitis; particularly complicated sinus disease e.g. subperiosteal abscess, intracranial sepsis.*
Knowledge	4 Nasal anatomy 3 Pathophysiology of rhinosinusitis 2 Epidemiology, natural history & presenting symptoms of rhinosinusitis in children 2 Current approach to treatment of infective rhinosinusitis to include awareness of the evidence base for current treatment regimens. 2 Recognition and competence in the emergency management of the complications of rhinosinusitis.
Clinical Skills	HISTORY AND EXAMINATION 3 Ability to take a thorough history from the child/carer 3 Anterior Rhinoscopy 1 Flexible Nasendoscopy 3 Otoscopy DATA INTERPRETATION 2.Awareness of imaging techniques 1 Assessment of abnormalities on CT scanning of the paranasal sinuses and MR brain. PATIENT MANAGEMENT 2 Medical and surgical management of rhinosinusitis and its complications.

Technical Skills and Procedures	3 EUA Nose

Topic	**Airway pathology in childhood**
Category	Paediatric Otolaryngology
Sub-category:	Airway Disorders
Objective	*Safe recognition of the main patterns of presentations and likely aetiologies of children with airway obstruction at birth, in infancy and in later childhood. Includes primary management to enable definitive treatment of main conditions.*
Knowledge	3 Anatomy of the paediatric airway 2 differences between the adult and paediatric airway . 2. Physiology of airway obstruction (Poiseulles law, Reynolds number) 2. Clinical features of airway obstruction 2 Clinical measures to determine severity of obstruction 2 Know the causes, presenting symptoms of airway pathology in children, 1 Know the treatment options and natural history of main conditions causing airway pathology in children at different ages e.g. laryngomalacia, vocal cord palsy, subglottic cysts, haemangioma, RRP, Laryngeal cleft, tracheobronchmalacia,acute epiglottitis and laryngotracheobronchitis (croup). 1 Understand the role of laryngopharyngeal reflux in airway pathology in children-
Clinical Skills	HISTORY AND EXAMINATION 3Ability to take a thorough history from the child/carer 2 Assessment of the airway in a child 1 Flexible pharyngolaryngoscopy. DATA INTERPRETATION 2 Assessment of pulse oximetry findings, assessment of radiography at a basic level e.g. recognition of gross abnormalities on chest radiograph and CT PATIENT MANAGEMENT 1 Medical management in the acute and elective situation e.g. steroids, adrenaline, reflux. 1 Emergency airway care in conjunction with anaesthetist and paediatriciain. 1 Management of paediatric tracheostomy tubes
Technical Skills and Procedures	1 Paediatric flexible pharyngolaryngoscopy in the outpatients

Topic	The drooling child
Category	Paediatric Otolaryngology
Sub-category:	
Objective	To be competent at assessing a child who presents with the symptom of drooling, and to understand the principles behind management of these patients.
Knowledge	4 Anatomy of the major and minor salivary glands 4 Anatomy of the oral cavity 3 Physiology of salivation 2 Know the causes and predisposing factors (including syndromes) for drooling 1 Understand how multidisciplinary input is used in the management of drooling children. 1 Understand the principles of non medical, medical and surgical management of drooling children
Clinical Skills	2 Undertake a comprehensive history and examination of a child who presents with drooling 1. Be able to communicate an effective management plan to the patient and his or her carer 1 Work with colleagues from other specialities and disciplines to provide effective care for children presenting with drooling.
Technical Skills and Procedures	2 Tonsillectomy 2 Adenoidectomy 1 Flexible nasoendoscopy

Topic	Acute tonsillitis, Diseases of the adenoids and their complications	Areas in which simulation should be used to develop relevant skills
Category	Paediatric Otolaryngology	
Sub-category:	Tonsils	
Objective	*Definitive secondary-care management of adenotonsillar disease excluding OSA in otherwise healthy children. Management in syndromic and special needs children is often in a designated children's hospital.*	
Knowledge	4 Anatomy of the oral cavity, oropharynx and nasopharynx 3 Microbiology of the oral cavity, oropharynx and nasopharynx 2 Epidemiology, classification, aetiology and natural history of adenotonsillar disease. 2 Thorough understanding of the evidence base that underpins current treatment approaches. Awareness of controversies. 1 Understanding of specific management requirements in the very young, special needs and syndromic children	

Clinical Skills	HISTORY AND EXAMINATION 3 Ability to take a through history from child/parent. 3 Otoscopy 3 Examination of the oral cavity and oropharynx 2 Ability to recognise the child with possible OSA. DATA INTERPRETATION 3 Clinical assessment of the nasal airway PATIENT MANAGEMENT 2 Medical and surgical treatment. 2 Management of complications both of the disease (eg peritonsillar abscess) and of treatment	
Technical Skills and Procedures	2Tonsillectomy 2 Adenoidectomy 1 Arrest of adenotonsillar bleeding as an emergency	Desirable (Adeno) Tonsillectomy.

Topic	**ENT related syndromes and cleft palate**	**Areas in which simulation should be used to develop relevant skills**
Category	Paediatric Otolaryngology	
Sub-category:	Congenital deformities affecting the head and neck	
Objective	*Appropriate primary management of children with ENT related syndromes and cleft palate, awareness of the principles and challenges that underpin long-term care.*	
Knowledge	3 Embryology of the head and neck, including palate. 4 Anatomy of the head and neck in children 2 Recognition of the common ENT related sydromes and associations (e.g. Down's, Treacher Collins, Pierre Robin, Goldenhar, BOR, CHARGE, craniosynostosis). 1 Knowledge of the ENT manifestations of the conditions listed above 1 Knowledge of the general clinical problems encountered in these conditions with particular reference to safety of anaesthesia. 1 Basic understanding of the underlying genetics of these conditions.	
Clinical Skills	HISTORY AND EXAMINATION 3 Ability to take a thorough history from the patient or carer. 2Targeted examination of the child based on knowledge of the ENT manifestations of the condition DATA INTERPRETATION 1 Interpretation of age-appropriate assessment of hearing and overnight pulse oximetry. 1Recognition of abnormalities on imaging PATIENT MANAGEMENT 1 Able to participate in the multidisciplinary approach to children with complex needs. 1 Management of OME in children with cleft palate or Downs syndrome	
Technical Skills and Procedures	2 Myringotomy & ventilation tube insertion 1Flexible pharyngolaryngoscopy	Desirable Otomicroscopy

Topic	**Congenital and acquired neck masses**
Category	Paediatric Otolaryngology
Sub-category:	Neck Masses
Objective	*Safe recognition of main patterns of presentations of children with neck swellings at birth, in infancy and in later childhood. Includes primary management to enable definitive treatment of common conditions.*
Knowledge	4 Anatomy of the head and neck and upper mediastinum. 2.Applied embryology of thyroid gland with relation to thyroglossal cysts 2 Applied embryology of the branchial arches. 3 Anatomy of the neck spaces and understanding of the presentation, clinical features and primary management of abscesses and collections in these spaces 1 Classification of vascular malformations and awareness of treatment options 2 Knowledge of the clinical presentation and management of the commoner congenital abnormalities (e.g. cystic hygroma, teratoma, branchial abnormalities, thyroglossal cysts, lingual thyroid) 2 Awareness of the infective causes of neck lumps in children. (e.g.TB, HIV, other viral) 1 Management of persistent cervical lymphadenopathy and the appropriate use of investigations and surgical intervention. 2 Knowledge of the possible airway complications of neck masses and their management.
Clinical Skills	HISTORY AND EXAMINATION 3 Ability to take a thorough history from a patient or carer 2 Systematic examination of the child with particular reference to the neck 2 Be able to identify the signs of airway obstruction in a child DATA INTERPRETATION 2 Be able to identify the most appropriate imaging options available e.g. sonography, CT, MR scanning. 2 Interpretation of virology and microbiology investigations. 1 Interpretation of head and neck images. PATIENT MANAGEMENT 1 Surgical and non-surgical treatment options for the management of neck masses. 3 Be able to work in a multidisciplinary team.
Technical Skills and Procedures	1 Flexible pharyngolaryngoscopy 1 Incision & drainage neck abscess 2 Biopsy neck node

Topic	Language delay and dysphonia in childhood	Areas in which simulation should be used to develop relevant skills
Category	Paediatric Otolaryngology	
Sub-category:	Speech and language development	
Objective	*Awareness of the aetiology of language delay. Awareness of congenital and acquired laryngeal disorders affecting speech.*	
Knowledge	2. Anatomy of the larynx in children and the physiology of voice production. 2 The normal developmental milestones with an emphasis on speech and language acquisition. 2 Role of hearing in language acquisition 2.Common causes of delayed speech 1 Management of laryngeal pathologies. 1 Understanding of age appropriate hearing tests. 1 Understanding of the controversies in the management of tongue tie.	
Clinical Skills	HISTORY AND EXAMINATION 3 Ability to take a through history from child/carer 3 Otoscopy 1 Flexible pharyngolaryngoscopy. DATA INTERPRETATION 2 Age appropriate hearing test 2Tympanometry PATIENT MANAGEMENT 1 Multidisciplinary approach in the management of children with speech and other developmental problems	
Technical Skills and Procedures	1 Flexible nasoendoscopy and pharyngolaryngscopy 1 Division of tongue tie 2 Ventilation tube insertion.	Desirable Myrigotomy & grommet

Topic	Head and neck malignancy in childhood
Category	Paediatric Otolaryngology
Sub-category:	Oncology
Objective	*Awareness of the epidemiology, presentation and principles of management of malignant disease in the head and neck.*
Knowledge	1 Knowledge of the common malignancies of the head and neck in childhood 2 knowledge of presentation, investigations and management options in childhood cancers. 2 Understanding of issues relating to the management of the child and family with cancer including palliative care e.g. management of epistaxis and hearing loss. 2 Understanding of the need for a multidisciplinary approach to childhood cancer and the need for early referral to a regional oncology centre when malignancy is suspected.

Clinical Skills	HISTORY AND EXAMINATION 3 Ability to take a through history from child/carer 3 Examination of the head and neck 3 Examination of the cranial nerves 3 Otoscopy 1 Flexible pharyngolaryngoscopy PATIENT MANAGEMENT 1 Multidisciplinary approach to the management of childhood cancer. 2 Know the range of diagnostic tests available particularly imaging
Technical Skills and Procedures	1 Flexible pharyngolaryngoscopy, 2 Neck node biopsy after liaison with regional oncology services. 1 Biopsy of tumours after liaison with regional oncology services.

Topic	**Congenital abnormalities of the ear**	**Areas in which simulation should be used to develop relevant skills**
Category	Paediatric Otolaryngology	
Sub-category:	Disorders of the external ear in children	
Objective	*Recognition and classification of the principle congenital anomalies of the ear.*	
Knowledge	4 Understanding of the anatomy & embryology of the ear and related structures 2 Physiology of hearing 1 Knowledge of the clinical problems associated with dysplasia of the ear 1 Knowledge of common grading systems for microtia and atresia 1 Knowledge of bone anchored auricular prosthesis and autologous pinna reconstruction.	
Clinical Skills	HISTORY AND EXAMINATION 3 Ability to take a thorough history from the child/carer 2 Inspection of the external ear and recognition of main anomalies 3 Otoscopy 3 Clinical assessment of hearing DATA INTERPRETATION 2 Age-appropriate assessment of hearing 2 Tympanometery	
Technical Skills and Procedures	3 Otomicroscopy 1 Excision of preauricular sinus 1 Excision of simple lesions in and around the external ear 1 Surgery for prominent ears 1 Bone anchored hearing aid	Strongly recommended Otomicroscopy

Topic	Congenital deafness	Simulation
Category	Paediatric Otolaryngology	
Sub-category:	Deafness excluding otitis media and its complications	
Objective	*Awareness of the epidemiology and presentation of deafness, knowledge of range of causes, awareness of diagnostic and investigative strategies and knowledge of the principles that underpin rehabilitation including amplification and cochlear implantation*	
Knowledge	3 embryology of the ear including congenital deformities of the ear and their relationship to deafness 2 Physiology of hearing 2 knowledge of Genetic, syndromic and non-syndromic deafness 2.Knowledge of acquired causes including congenital infections (e.g. CMV, rubella) 2 Fundamental understanding of age appropriate audiological testing including universal neonatal screening (OAE,ABR). 1 Appropriate investigations for the congenitally deaf child (bilateral or unilateral) e.g. TORCH screen, dipstix for haematuria, MRI, genetic review 2 Multidisciplinary approach to the rehabilitation of the deaf child (bilateral and unilateral). 1 Knowledge of candidacy criteria for cochlear implantation and nature of surgery involved. 2 Awareness of the range of investigative options available including imaging (sonography, CT, MR scanning)	
3	HISTORY AND EXAMINATION 3 Ability to take a thorough history from child/parent. 3 Otoscopy 3 Clinical assessment of hearing DATA INTERPRETATION 2. Age appropriate hearing test 3. Tympanometry PATIENT MANAGEMENT	
Technical Skills and Procedures	3 Microscopic examination of the ear 2 Myringotomy & ventilation tube	Desirable Myringotomy & grommet

Topic	The Dizzy Child	**Areas in which simulation should be used to develop relevant skills**
Category	Paediatric Otolaryngology	
Sub-category:	Dizziness	
Objective	To be competent in the assessment, investigation and management of a child presenting with dizziness	

Knowledge	4 Anatomy of the ear and vestibular system 4 Physiology of balance 2 Knowledge of the causes of balance disorders in children 2 Knowledge of the genetic causes of hearing loss associated with vestibular symptoms e.g. Ushers, NF2, Jervell-Lange-Nielson 2 Knowledge of appropriate investigations and subsequent management of vestibular disorders	
Clinical Skills	HISTORY AND EXAMINATION3 Ability to take a thorough history from the child/carer 3 Otoscopy 2 Clinical assessment of vestibular function e.g. Dix Hallpike, head thrust, Unterbergers. 3 neurological examination including cranial nerves DATA INTERPRETATION 2 Age appropriate hearing test 3 Tympanogram 1 Interpretation of vestibular testing-posturography, calorics, VEMP's 2 Identification of significant abnormalities from diagnositic imaging e.g. MRI, CT PATIENT MANAGEMENT 2 Explanation of diagnosis to child and family 2 Commencement of conservative, medical or surgical management of underlying vestibular pathology 2 Appropriate referral to allied health professionals or other specialities	
Technical Skills and Procedures	2 Myringotomy and ventilation tube insertion 1 Cholesteatoma surgery	Desirable Myringotomy and grommet

Topic	**Otitis media (acute, chronic and with effusion) and complications and conditions of the external auditory canal**	**Areas in which simulation should be used to develop relevant skills**
Category	Paediatric Otolaryngology	
Sub-category:	Otitis media and its complications	
Objective	*Definitive secondary-care management of middle and external ear disease and its complications*	
Knowledge	4.Anatomy of the external and middle ear cleft and surrounding structures 2 Physiology of hearing 2.Epidemiology, classification, aetiology and natural history of each variant of otitis media. 1 Know the indications for imaging 1 Know the evidence base which underpins current treatment approaches. 2 Demonstrate an understanding of the surgical management of cholesteatoma and the complications of otitis media 2. Knowledge of the indications for, and surgical principles of, bone anchored hearing aids and middle ear implants.	

Clinical Skills	HISTORY AND EXAMINATION 3 Ability to take a through history from child/parent 3 Otoscopy 3 Neurological examination including cranial nerves 3 Clinical assessment of hearing. DATA INTERPRETATION 2 Age appropriate hearing tests 2 Tympanometry 1 Identification of significant abnormalities from diagnostic imaging e.g. CT scan, MRI 2 Laboratory investigations e.g. blood tests, bacteriology results PATIENT MANAGEMENT 2 Medical, conservative and surgical management 1 Appropriate referrals and team working for children with complications of acute otitis media	
Technical Skills and Procedures	3 Otomicroscopy and aural toilet 2 Ventilation tube insertion 1 Tympanoplasty 1 Cortical Mastoidectomy 1 Cholesteatoma surgery 1 Bone anchored hearing aid	Strongly recommended Otomicroscopy Myringotomy & grommet

Topic	**Facial palsy in childhood**	**Areas in which simulation should be used to develop relevant skills**
Category	Paediatric Otolaryngology	
Sub-category:	Facial Palsy	
Objective	*Safe primary management of children with facial palsy, recognition of clinical pathologies that present with facial palsy.*	
Knowledge	4 Anatomy of the facial nerve, and related structures 2 Knowledge of the aetiologies (congenital and acquired) of facial palsy. 2 Knowledge of the initial investigations and management of a child with facial palsy 1 Knowledge of the natural history of childhood facial palsy. 1 Know when to refer to tertiary centre. 1 Awareness of the range of diagnostic tests and the principles that govern their use e.g. electroneuronography, imaging of the facial nerve 4 Facial nerve grading systems	
Clinical Skills	HISTORY AND EXAMINATION 3 Ability to take a history from child/parent 3 Otoscopy 3 Examination of the head and neck 3 Assessment of the cranial nerves in children and grading of facial palsy 3 Clinical assessment of hearing DATA INTERPRETATION 1 Interpretation of specific investigations eg elctroneuronography PATIENT MANAGEMENT 2 Pharmacological management (e.g steroids, anti-viral agents) 3 Eye protection	

Technical Skills and Procedures	2 Myringotomy and ventilation tube insertion 1 Cortical mastoidectomy & Drainage of mastoid abscess 1 Cholesteatoma surgery	Desirable Myringotomy & Grommet

Topic	**Rhinitis**
Category	Paediatric Otolaryngology
Sub-category:	Inflammatory nasal disease (including allergic rhinitis)
Objective	*Optimum recognition and management of children with rhinitis.*
Knowledge	4 Anatomy and embryology of the nose and sinuses. 3 Nasal physiology 3 Knowledge of the pathophysiology, epidemiology, symptomatology and natural history of rhinitis 1 Know the basic science of allergy 1 Knowledge of the scientific principles of common investigations e.g skin prick tests, RAST 1 Knowledge of the evidence base for current treatment of allergic rhinitis 2 Knowledge of imaging techniques; assessment of abnormalities on CT scanning of the paranasal sinuses
Clinical Skills	HISTORY AND EXAMINATION 3 Ability to take a thorough history from the child/carer 3 Anterior Rhinoscopy 1 Flexible Nasendoscopy 3 Otoscopy DATA INTERPRETATION 2 Skin prick tests for allergies; Blood tests for allergies; 1 immunological tests, ciliary function tests. PATIENT MANAGEMENT 1 Conservative, medical and surgical management of rhinitis
Technical Skills and Procedures	1 Turbinate surgery 2 EUA Nose & PNS 2 Nasal biopsy

Topic	**Nasal masses**
Category	Paediatric Otolaryngology
Sub-category:	Nasal Polyps in Children
Objective	*To be competent at the diagnosis of inflammatory nasal disease, the differential diagnosis and management of inflammatory nasal disease.*
Knowledge	4 Anatomy and embryology of the nose and sinuses. 2 Nasal physiology 2 Knowledge of the aetiology, clinical features and management of nasal polyps in children including their association with cystic fibrosis 2 Knowledge of the aetiologies of nasal obstruction at birth, in infancy and in later childhood e.g. choanal atresia, rhinitis, encephocele, glioma. 1 Knowledge of the investigations (including imaging) and treatment of the above conditions. 1 Knowledge of related systemic conditions involving the nose e.g. Wegeners granulomatosis

Clinical Skills	HISTORY AND EXAMINATION 3 Ability to take a thorough history from the child or carer 3 Anterior Rhinoscopy 1 Flexible Nasendoscopy 3 Otoscopy DATA INTERPRETATION 2. Assessment of abnormalities on CT scanning of the paranasal sinuses 1 Immunological tests, ciliary function tests PATIENT MANAGEMENT 1 Medical and surgical management of nasal polyposis 1 Investigation of nasal masses
Technical Skills and Procedures	1 Endoscopic Nasal Polypectomy 2 Nasal biopsy 2 Examination nose and PNS

Topic	**Obstructive sleep apnoea**	**Areas in which simulation should be used to develop relevant skills**
Category	Paediatric Otolaryngology	
Sub-category:	airway obstruction in childhood	
Objective	*Optimum recognition and management of children with possible obstructive sleep apnoea.*	
Knowledge	4 Anatomy of the upper airway 2 Physiology of sleep 2. Knowledge of multi-level obstruction 2 Knowledge of the concept of sleep disordered breathing 2Knowledge of the complications of upper airway obstruction 2. Knowledge of appropriate investigations and treatment. 1 Knowledge of the relevance of co-morbidities 1 Assessment of low versus high risk patients and appropriate referral	
Clinical Skills	HISTORY AND EXAMINATION 3 Ability to take a thorough history from the child/carer 3 Examination of the oral cavity, oropharynx and chest wall 1 Anterior Rhinoscopy 1 Flexible Nasendoscopy DATA INTERPRETATION 1 Interpretation of sleep studies 2 ECG/CXR/echo manifestations PATIENT MANAGEMENT 1 Conservative, medical and surgical management of OSA	
Technical Skills and Procedures	3 EUA PNS 2 Adenoidectomy 2 Tonsillectomy	Desirable Ts +/- As

HEAD AND NECK

Topic	Adenoid and tonsillar pathology in adults	Areas in which simulation should be used to develop relevant skills
Category	Head and Neck	
Sub-category:	None	
Objective	*To understand the aetiology, presenting signs, symptoms and management of benign adenotonsillar and pharyngeal disease. This module gives some indication of the breadth and depth of required knowledge and surgical skills. The list should not be considered to be fully inclusive or exhaustive.*	
Knowledge	4 Demonstrate a detailed knowledge of the anatomy, physiology, pathology & microbiology of the oro and nasopharynx incl relevant anatomical relationships 3 Know the presenting signs and symptoms of benign adenotonsillar & pharyngeal disease 4 Know the complications of adenotonsillar infection. 3 Understand the investigation, differential diagnosis and complications of adenotonsillar hypertrophy 4 Know the 'red flag' indicators of malignant disease of the pharynx	
Clinical Skills	3 Demonstrate expertise at eliciting an appropriate clinical history and physical signs of benign adenotonsillar and pharyngeal disease and the complications of treatment including those involving the airway 3 Diagnosis and medical management of post-operative haemorrhage following adenotonsillar surgery	
Technical Skills and Procedures	3 Incision and drainage of peritonsillar abscess. 3 Manage the compromised airway due to hypertrophy 2 Tonsillectomy 1 Adenoidectomy in adults 1 Surgical management of post-operative bleeding following adenotonsillar surgery	Desirable Ts +/- As

Topic	Airway obstruction in adults	Areas in which simulation should be used to develop relevant skills
Category	Head and Neck	
Sub-category:	None	
Objective	*To understand the aetiology, presenting signs, symptoms and management of patients presenting with upper airway disorders in the emergency situation in adults. This module gives some indication of the breadth and depth of required. Knowledge and surgical skills. The list should not be considered to be fully inclusive or exhaustive.*	
Knowledge	4 Demonstrate a detailed knowledge of the anatomy & physiology of the larynx, trachea, pharynx and oral cavity 4 Understand the microbiology and pathology of disorders of the upper aerodigestive tract. 3 Understand the classification of diseases that may present with airway	

	obstruction. 3 Understand the principles of management of patients presenting with airway obstruction. 2 Know the different methods of securing an airway safely (surgical & non surgical) in an emergency setting 1 Understand the indications & techniques for surgical debulking of upper airway malignancies	
Clinical Skills	3 Be able to elicit an appropriate clinical history and correctly interpret physical signs. 2 be aware of the role of appropriate investigation in the management of airway obstruction 1 Demonstrate the ability to work effectively with anaesthetists and those involved in critical care who manage the 'shared airway'. 1 Demonstrate expertise in the safe assessment of patients with critical airways.	
Technical Skills and Procedures	2; Fibreoptic nasopharyngoscopy, 1 direct laryngoscopy, microlaryngoscopy, bronchoscopy, pharyngo oesophagoscopy 1 Be competent at performing endotracheal intuation 1 Be proficient at performing a surgical tracheostomy in the elective & emergency setting both under general and local anaesthesia 1 Be competent at foreign body removal from the airway in adults 1 Debulking procedures (laser/microdebrider)	Strongly recommended Flexible nasendoscopy Desirable Laryngooscopy & pharyngoscopy Tracheostomy

Topic	**Aetiology and management of the craniocervical trauma in adults**	**Areas in which simulation should be used to develop relevant skills**
Category	Head and Neck	
Sub-category:	None	
Objective	*To understand the aetiology, presenting signs, symptoms and management of a patient with craniocervical trauma. This module gives some indication of the breadth and depth of required knowledge and surgical skills. The list should not be considered to be fully inclusive or exhaustive.*	
Knowledge	4 Understand the anatomy of the head and neck 2 Understand the pathophysiological effects of blunt, penetrating and high and low velocity projectile trauma to the bones and soft tissues of the head and neck 1 Understand the Le Fort classification of facial fractures and their effects. 1 Understand the classification of fractures of the mandible and their effects 1 Understand the classification of fractures of the temporal bone and their effects. 1 Understand the consequences and potential complications of injury to structures in the neck, in the 3 horizontal entry zones of the neck.1 Understand the principles underpinning the appropriate investigation of a patient with a penetrating injury of the neck 4 Understand the principles of the Glasgow Coma Scale and the management of the patient with an altered level of consciousness. 3 Understand the principles of management of traumatic injury to the head and neck, including the indications for urgent surgical exploration and the priorities underpinning the planning of investigation and management. 2 Understand the need for a multidisciplinary approach to management of craniocervical trauma 1 Understand the pathophysiology of chemical and thermal burn injury to the upper aerodigestive tract & principles of management	

Clinical Skills	3 Be able to elicit an appropriate clinical history from a patient with craniocervical trauma (or from a third party witness). 3 Be able to demonstrate the relevant clinical signs from a patient with craniocervical trauma. 2 Be able to appropriately order and interpret the results of investigations in a patient with craniocervical trauma. 1 Be able to coordinate the assembly of an appropriate multidisciplinary team to manage a patient with craniocervical trauma.	
Technical Skills and Procedures	1 Be able to secure the airway through intubation or tracheostomy 1 Be able to explore the traumatized neck and secure bleeding vessels. 1 Be able to manage penetrating injury to the viscera of the upper aerodigestive tract where appropriate	Desirable Tracheostomy Exploration of neck

Topic	**Disorders of swallowing**	**Areas in which simulation should be used to develop relevant skills**
Category	Head and Neck	
Sub-category:	None	
Objective	*To understand the aetiology, presenting signs, symptoms and management of common disorders of swallowing, including dysphagia, globus pharyngeus ,neurological swallowing disorders, odynophagia and aspiration. This module gives some indication of the breadth and depth of required knowledge and surgical skills. The list should not be considered to be fully inclusive or exhaustive*	
Knowledge	4 Understand the anatomy of the pharynx, and physiology of swallowing. 3 Understand causes of odynophagia. 3 Understand the various hypotheses relating to the aetiology of dysphagia. 3 Understand the investigation and imaging of a patient with dysphagia. 3 Understand the principles of medical and surgical management of dysphagia 3 Understand the aetiology and management of globus pharyngeus 3 Understand the aetiology and management of extra-oesophageal reflux.	
Clinical Skills	3 Elicit an appropriate clinical history and clinical signs. 2 Be able to examine the pharynx and oesophagus with mirrors and endoscopes in outpatients 2 Be able to work in cooperation with Speech & language therapists in the management of dysphagia 3 Be aware of 'red flag' symptoms in the differential diagnosis of dysphagia 1 Interpretation of videofluoroscopic swallowing studies	
Technical Skills and Procedures	2 Flexible fibreoptic nasopharyngolaryngoscopy 1 Fibreoptic endoscopic evaluation of swallowing studies 2 Endoscopic examination of pharynx, larynx and oesophagus under general anaesthesia 1 Removal of foreign bodies from the pharynx, larynx and oesophagus under general anaesthesia 1 Be able to perform competently endoscopic and open pharyngeal pouch surgery	Strongly recommended Flexible nasendoscopy Desirable Laryngoscopy, Pharyngoscopy Removal of foreign bodies

Topic	Aetiology and management of cervical sepsis	Areas in which simulation should be used to develop relevant skills
Category	Head and Neck	
Sub-category:	None	
Objective	*To understand the aetiology, presenting signs, symptoms and management of a patient with cervical sepsis. This module gives some indication of the breadth and depth of required knowledge and surgical skills. The list should not be considered to be fully inclusive or exhaustive.*	
Knowledge	4 Understand the anatomy of the fascial compartments of the neck. 3 Understand the pathogenesis(including congenital abnormalities) and clinical presentation of deep neck space infections. 4 Know the microbiology of deep neck space infections. 2 Understand the principles of medical and surgical management of deep neck space infection, including image guided drainage procedures. 2 Understand the complications of deep neck space infections and their management.	
Clinical Skills	3 Be able to elicit an appropriate history from a patient with deep cervical sepsis. 2 Be able to demonstrate the relevant clinical signs from a patient with deep cervical sepsis. 2 Be able to order and interpret the results of appropriate investigations, including imaging and microbiological cultures, in a patient with deep cervical sepsis. 2 Be able to undertake treatment of a patient with deep cervical sepsis or complications thereof.	
Technical Skills and Procedures	2 Be proficient in rigid endoscopic examination of the upper aerodigestive tract 1 Be proficient in management of the compromised upper airway in deep cervical sepsis, including tracheostomy. 1 Manage the patient in conjunction with anaesthetists/intensivists 1 Be competent in the open incision and drainage of a deep cervical abscess, as well as demonstrating awareness of the complications of such procedures.	Strongly recommended Flexible nasendoscopy Desirable Laryngoscopy, Pharyngoscopy Endotracheal intubation Tracheostomy

Topic	**Aetiology and management of congenital abnormalities of the head and neck affecting adults**
Category	Head and Neck
Sub-category:	None
Objective	*To understand the aetiology, presenting signs, symptoms and management of a patient with congenital abnormality of the head and neck. This module gives some indication of the breadth and depth of required knowledge and surgical skills. This section complements the paediatric section as most of the problems will present there. The list should not be considered to be fully inclusive or exhaustive.*
Knowledge	3 Understand the embryology of the head and neck. 4 Understand the anatomy of the neck. 3 Understand the morphology and classification of pharyngeal diverticulae. 2 Understand the pathophysiological effects of pharyngeal diverticulae and the principles underlying their management 3 Understand the theories relating to the pathogenesis of branchial arch abnormalities including branchial cyst, collaural fistula, external ear malformations, thyroglossal duct related malformations, cervical sinuses and fistulae.(ie branchial cleft abnormalities) 2 Understand the principles of management of branchial arch abnormalities including branchial cyst, collaural fistula, external ear malformations, thyroglossal duct related malformations, cervical sinuses and fistulae. 2 Know of syndromes associated with congenital abnormalities of the head and neck 1 Understand the morphology and classification of dentoalveolar malformations and the principles underlying their management. 1 Understand the morphology and classification of congenital abnormalities of the larynx, trachea and oesophagus and the principles underlying their management. 2 Understand the morphology, classification of and pathophysiological effects of cleft lip and palate, and the principles of management thereof. 2 Understand the investigation of congenital abnormalities of the head and neck including imaging and examination under anaesthesia. 1 Understand the principles of genetic counselling of patients or the parents of children with congenital abnormalities of the head and neck
Clinical Skills	3 Be able to elicit an appropriate history from a patient with a congenital abnormality of the head and neck. 2 Be able to demonstrate the relevant clinical signs from a patient with a congenital abnormality of the head and neck. 2 Be able to undertake appropriately ordered investigation of a congenital abnormality of the head and neck. 1 Be able to interpret imaging of congenital abnormalities of the head and neck. 2 Understand the role of a multidisciplinary team in the management of congenital abnormalities of the head and neck.
Technical Skills and Procedures	1 Be able to perform appropriately directed examination under anaesthesia , including endoscopic assessment of a congenital abnormality of the head and neck. 1 Be able to excise a pharyngeal diverticulum using open and endoscopic techniques. 1 Be able to perform surgery to remove abnormalities of the thyroglossal duct. 1 Be able to perform a tracheostomy under general and local anaesthesia 1 Be able to excise a branchial cyst.

Topic	Cervical lymphadenopathy in adults	Areas in which simulation should be used to develop relevant skills
Category	Head and Neck	
Sub-category:	None	
Objective	*To understand the aetiology, presenting symptoms & signs and management of patients presenting with cervical lymphadenopathy. This module gives some indication of the breadth and depth of required knowledge and surgical skills. The list should not be considered to be fully inclusive and exhaustive.*	
Knowledge	3 Demonstrate knowledge of the aetiology & pathology of cervical lymphadenopathy including manifestations of systemic disease. 2 Be able to order the appropriate investigations of neck masses 4 Understand the anatomy of the neck, and distribution of cervical lymph nodes. Classify the lymphatic levels of the neck according to the MSK (Memorial Sloan Kettering) classification. 3 Demonstrate knowledge of the differing histological and microbiological causes of cervical lymphadenopathy. 2 Presentation, aetiology, investigations and pattern of metastatic spread of upper aerodigestive tract, salivary gland, cutaneous and thyroid malignancies. 2 Demonstrate knowledge of the presentation, aetiology, investigations and principles of management of lymphoreticular disease as it applies to the head and neck. 2 Principles of management of patients with cervical lymphadenopathy including specifically the management of the unknown primary malignant neck lump. 2 Demonstrate knowledge of the indications for medical & surgical management and the complications of management.	
Clinical Skills	3 Be able to take a relevant detailed history and interpret clinical signs correctly.	
Technical Skills and Procedures	2 Fine needle aspiration cytology 2 Out patient and in-patient endoscopy of the UADT. 2 Excision of cervical lymph nodes and deal with the complications 1 Comprehensive and selective Neck dissection	Strongly recommended Flexible nasendoscopy Desirable Laryngoscopy, Pharyngoscopy

Topic	**Head and neck malignancies in the upper aerodigestive tract excluding the oral cavity**	**Areas in which simulation should be used to develop relevant skills**
Category	Head and Neck	
Sub-category:	None	
Objective	*To understand the aetiology of head and neck malignancies in the upper aerodigestive tract, presenting signs, symptoms and management of patients presenting with HNC. This module gives some indication of the breadth and depth of required. Knowledge and surgical skills. The list should not be considered to be fully inclusive or exhaustive*	
Knowledge	3 Understand the classification of head and neck malignancies in particular squamous carcinoma as it is the commonest type (HNC) and know the principles of TNM staging. 3 Know the pathology of HNC 3Understand the presenting signs and symptoms of head and neck cancer. 2 Understand the various hypotheses relating to the aetiology of squamous cell cancer including the cellular basis of oncogenesis. 3Understand the pattern of spread of malignant disease. 2 Understand how HNC is managed in the multidisciplinary setting. 2 Know the indications for imaging in HNC and the use of relevant imaging modalities. 2Understand the functional consequences of head and neck cancer, and its treatment. 2 Understand the principles involved in and evidence for the various medical and surgical methods of treatment available for head and neck cancer. 2 Understand the role of surgical and medical treatment in palliative management of patients 1 Understand the indications for reconstructive and rehabilitative surgery (including surgical voice restoration) in HNC 1 Know the various reconstructive options available in HNC 2 Understand the basic science underlying treatment with chemotherapy and radiotherapy 3 Understand the various techniques and regimes use din chemotherapy and radiotherapy in HNC treatment 2 Know of the complications both acute and long term of surgical and non surgical management of HNC and their multidisciplinary treatment	
Clinical Skills	3 Elicit a relevant clinical history and clinical signs including being able to perform an appropriate examination. 2 Be able to work within the MDT, and recognise the contributions made by all team members. 3 Demonstrate good communication skills with other professionals. 2 Be able to break bad news sensitively and appropriately to patients and their families	Desirable Communication skills
Technical Skills and Procedures	1 Be able to perform the following diagnostic procedures; microlaryngoscopy, pharyngo-oesophagoscopy, examination of postnasal space, bronchoscopy, 2 pharyngoscopy, direct laryngoscopy, 2 Tonsillectomy, 2 Fine Needle Aspiration Cytology (FNAC) 1 Total Laryngectomy 1 Comprehensive and selective neck dissection	Strongly recommended Flexible nasendoscopy Desirable Laryngoscopy,

	1 Open and endoscopic excision of pharyngeal tumours 1 Transoral laser surgery 1 Reconstructive surgery with myocutaneous (pedicled) flaps 1 Reconstructive surgery with free flaps 1 Be able to manage safely acute complications of Head & Neck surgery 1 Be able to replace a tracheooesophageal valve in clinic.	Pharyngoscopy Tonsillectomy

Topic	**Investigation and management of the neck lump**	**Areas in which simulation should be used to develop relevant skills**
Category	Head and Neck	
Sub-category:	None	
Objective	*To understand the aetiology, presenting symptoms & signs and management of patients presenting with a neck lump. This module gives some indication of the breadth and depth of required knowledge and surgical skills. The list should not be considered to be fully inclusive or exhaustive.*	
Knowledge	4 Understand the anatomy of the neck, and distribution of cervical lymph nodes. Classify the lymphatic levels of the neck. 3 Know the differential diagnosis of a neck lump. 3 Demonstrate knowledge of the aetiology & pathology of cervical lymphadenopathy including manifestations of systemic disease. 2 Understand the presentation, aetiology, investigations and pattern of metastatic spread of upper aerodigestive tract, salivary gland, cutaneous and thyroid malignancies. 2 Understand the appropriate investigation of neck masses and specifically the management of the unknown primary malignant lump. 2 Demonstrate knowledge of the presentation, aetiology, investigations and principles of management of lymphoreticular disease as it applies to the head and neck. 2 Understand the principles of medical and surgical management of patients with a neck lump 2 Demonstrate knowledge of the potential complications of management.	
Clinical Skills	3 Be able to take a relevant detailed history, perform appropriate examination and interpret clinical signs correctly.. 3 Demonstrate a rational approach to investigation of a neck lump	
Technical Skills and Procedures	2 Perform FNAC 2 Out patient and in patient endoscopy of the Upper aerodigestive tract 2 Perform excision biopsy of cervical lymph nodes and deal with the complications. 1 Comprehensive and selective Neck dissection 1 Branchial cyst excision and management of complications	Strongly recommended Flexible nasendoscopy Desirable Laryngoscopy, Pharyngoscopy

Topic	**Neoplastic salivary gland disease**
Category	Head and Neck
Sub-category:	None
Objective	*To understand the aetiology, presenting signs, symptoms and management of*

	neoplastic salivary gland disease. This module gives some indication of the breadth and depth of required knowledge and surgical skills. The list should not be considered to be fully inclusive or exhaustive.
Knowledge	4 Know the anatomy & physiology of the major & minor salivary glands & their relations. 4 Know the anatomy of the neck. 4 Know the anatomy of the oral cavity. 3 Know the pathology of salivary gland tumours. 2 Understand the classification of salivary gland tumours. 2 Understand inflammatory swellings 3 Know the presenting symptoms & signs of salivary gland tumours. 2 Understand the modalities (cytological & imaging) available for investigating salivary gland tumours 2 Know the differential diagnosis of salivary gland tumours and inflammatory swellings. 2 Understand the principles of management of salivary gland tumours. 2 Understand the potential consequences of salivary gland surgery and the complications of surgery 2 Understand the principles of management (surgical & non surgical) of malignant salivary gland disease 2 Understand the role of reconstructive and palliative surgery in the management of malignant salivary gland disease
Clinical Skills	3 Be able to elicit an appropriate clinical history and interpret physical signs correctly 3 Demonstrate the ability to detect 'red flag' symptoms & signs of malignant disease. 2 Order the most appropriate imaging modality 2 Manage patients with malignant disease in a multidisciplinary team
Technical Skills and Procedures	2 FNAC 1 Be able to perform a submandibular gland excision 1 Biopsy of a minor salivary gland tumour 1 Be able to perform a superficial parotidectomy 1 Total parotidectomy 1 Selective & comprehensive neck dissection

Topic	**Non neoplastic salivary gland disease**
Category	Head and Neck
Sub-category:	None
Objective	*To understand the aetiology, presenting signs, symptoms and management of benign salivary gland disease. This module gives some indication of the breadth and depth of required. Knowledge and surgical skills. The list should not be considered to be fully inclusive or exhaustive.*
Knowledge	4 Know the anatomy and physiology of the major and minor salivary glands. 3 Understand the pathological processes, both local & systemic, that can affect the salivary glands. 3 Understand the classification of benign salivary gland disease including infection, inflammatory diseases, drugs and benign tumours 2 Know the various imaging modalities for investigation of benign salivary gland disease. 2 Understand the principles of patient management. 2 Know the medical and surgical management of salivary gland disease, and the complications of surgery
Clinical Skills	3 Be able to elicit an appropriate clinical history and interpret clinical signs correctly. 2 Be able to order the appropriate special investigations and correctly interpret images including plain radiographs, computerized tomography and Magnetic resonance imaging. 1 Be able to counsel patients on the particular risks of salivary gland surgery.

Technical Skills and Procedures	1 Be able to excise a submandibular calculus 1 Be able to perform submandibular gland excision 1 Minor salivary gland biopsy

Topic	**Thyroid and parathyroid disease**
Category	Head and Neck
Sub-category:	None
Objective	*To understand the aetiology, presenting signs, symptoms and management of Thyroid and Parathyroid disorders. This module gives some indication of the breadth and depth of required knowledge and surgical skills. The list should not be considered to be fully inclusive or exhaustive.*
Knowledge	3 Understand the embryology, physiology, biochemistry and anatomy of the thyroid gland. 3 Understand the embryology, physiology, biochemistry and anatomy of the parathyroid glands. 4 Anatomy of the thyroid and parathyroid glands 2 Understand the pathophysiology of endocrine dysfunction of the thyroid and parathyroid glands. 2 Understand the classification of thyroid neoplasia. 2 Understand the principles of investigation of a patient with endocrine dysfunction of the thyroid gland. 2 Understand the principles of investigation of a patient with endocrine dysfunction of the parathyroid glands. 2 Understand the principles of investigation of a patient with a parathyroid or thyroid mass 2 Understand principles of medical and surgical management of endocrine dysfunction of the thyroid and parathyroid glands, including the peri operative management of thyrotoxicosis. 2 Understand principles of medical and surgical management of neoplasia of the thyroid and parathyroid glands, including post operative complications. 2 Understand the need to work as part of an MDT in management of malignant thyroid disease. 2 be aware of national and local thyroid malignancy guidelines.
Clinical Skills	3 Be able to elicit an appropriate clinical history from a patient with thyroid or parathyroid gland disease. 3 Be able to demonstrate relevant clinical signs in a patient with thyroid or parathyroid gland disease
Technical Skills and Procedures	2 Be able to obtain appropriate samples for fine needle cytology or core biopsy from a patient with a thyroid or parathyroid mass. 1Be able to perform thyroid surgery.

Topic	**Oral pathology**
Category	Head and Neck
Sub-category:	None
Objective	*To understand the aetiology, presenting signs, symptoms and management of patients presenting with disorders of the oral cavity. This module gives some indication of the breadth and depth of required knowledge and surgical skills. The list should not be considered to be fully inclusive or exhaustive.*
Knowledge	4 Understand the anatomy of the oral cavity 4 Know the normal flora of the oral cavity and how oral disease can alter oral flora 4 Understand the physiology of the oral phases of swallowing 3 Know the physiology of salivary function 2 Understand the consequences of oral disease on swallowing 2 Understand the consequences of salivary gland dysfunction on oral health 2 Know the causes of drooling and the principles of management thereof. 1 Understand the aetiology, pathophysiology, presenting symptoms and signs of dental caries 2 Know the pathophysiology, presenting symptoms & signs and management of mucosal oral disease including infection, inflammation, soft tissue and bony conditions 3 Understand the aetiology of oral cancer 3 Know the presenting symptoms and signs of oral cancer 2 Understand the principles of management of oral cancer 2 Understand the long and short term effects of chemotherapy and radiotherapy on oral health 2 Understand the appropriate modalities for imaging oral disease
Clinical Skills	3 Be able to elicit an appropriate clinical history and interpret physical signs correctly 3 Oral cavity examination 3 Demonstrate the ability to detect 'red flag' symptoms & signs of malignant disease. 2 Order the most appropriate imaging modality 1 Be able to interpret plain images of the oral cavity and associated bony structures 1 Manage patients with malignant disease in a multidisciplinary team 1 be able to diagnose dental related sepsis presenting in the neck or paranasal sinuses
Technical Skills and Procedures	1 Perform a biopsy of an oral lesion 1 Remove and treat benign oral lesions 1 Partial glossectomy 1 Dental extractions 1 Closure of oroantral fistulae 1 Mandibulotomy and excision of floor of mouth lesion

Topic	**Sleep related breathing disorders**	**Areas in which simulation should be used to develop relevant skills**
Category	Head and Neck	
Sub-category:	None	
Objective	*To understand the aetiology, presenting signs, symptoms and management of sleep related breathing disorders . This module gives some indication of the breadth and depth of required knowledge and surgical skills. The list should not be considered to be fully inclusive or exhaustive.*	

Knowledge	3 Know the aetiology, presenting signs and symptoms of sleep related breathing disorders, including snoring, obstructive sleep apnoea / hypopnoea and central sleep apnoea in adults. 2 Know of the pathophysiological sequelae of sleep related breathing disorders including snoring, obstructive sleep apnoea / hypopnoea and central sleep apnoea 2 Understand the principles of assessment and investigation of sleep related breathing disorders, including sleep nasendoscopy and sleep studies / polysomnography. 2 Understand the principles of management of sleep related breathing disorders including CPAP, mandibular advancement prostheses, nasal and pharyngeal surgery, tracheostomy and drug therapy. 2 Understand the principles of midface and mandibular advancement surgery.	
Clinical Skills	3 Be able to elicit an appropriate clinical history and identify relevant clinical signs in a patient with a sleep related breathing disorder. 2 Be able to make a correct diagnosis from the results of assessment and investigation of a patient with a sleep related breathing disorder, and synthesise an appropriate plan for their clinical management.	
Technical Skills and Procedures	1 Be able to perform palatal surgery for snoring/OSAS 1 Be able to perform surgery to correct nasal airway obstruction. 2 Be able to perform sleep nasendoscopy or out patient flexible fibreoptic nasendoscopy	Strongly recommended Flexible nasendoscopy

Topic	**Voice disorders**	**Areas in which simulation should be used to develop relevant skills**
Category	Head and Neck	
Sub-category:	None	
Objective	*To understand the aetiology, presenting signs, symptoms and management of common voice disorders. This module gives some indication of the breadth and depth of required knowledge and surgical skills. The list should not be considered to be fully inclusive or exhaustive.*	
Knowledge	1 Understand the physics of sound 3 Understand the embryology of the larynx and congenital malformations of the larynx 2 Understand the maturational / developmental changes of the larynx 4 Understand the anatomy, neuroanatomy and movements of the larynx 2 Understand the physiology of phonation and articulation 1 Understand the classification of dysphonias and the various hypotheses relating to the aetiology of dysphonias. 1 Understand the classification of disorders of articulation 1 Understand principles of videostroboscopic examination of the larynx, laryngography and analysis of pitch and periodicity of speech. (including photodocumentation) 2 Understand the principles of the medical and surgical management of patients with dysphonia (including instrumentation). 1 Know the principles of Speech and Language Therapy 2 Know about inflammatory and neoplastic laryngeal disorders	
Clinical Skills	3 Elicit an appropriate clinical history from and demonstrate clinical signs in a dysphonic patient 1 Communication skills with Speech & Language therapists and ability to work in a multidisciplinary team.	

Technical Skills and Procedures	2 Laryngeal examination with mirrors and flexible fibreoptic endoscope in an outpatient setting 1 Microlaryngosopy 1 Videostroboscopic laryngoscopy in an outpatient setting 1 Microscopic / endoscopic laryngeal surgery and intralaryngeal injection techniques 1 Laryngeal framework surgery 1 Vocal cord injection 1 Laryngeal electromyography	Strongly recommended Flexible nasendoscopy Desirable Laryngoscopy, Pharyngoscopy Microlaryngoscopy

RHINOLOGY

Topic	Epistaxis	Areas in which simulation should be used to develop relevant skills
Category	Rhinology	
Sub-category:	None	
Objective	*To understand the aetiology, presenting symptoms and signs and management of epistaxis. There should be detailed understanding of the presenting features, complications, diagnosis, and management of these problems.*	
Knowledge	3 Understanding of local and systemic aetiologies of epistaxes 3 Detailed knowledge of the anatomy and physiology of nasal vasculature 3 Detailed understanding of the presenting symptoms and signs of epistaxes 3 Detailed knowledge of management including first aid measures, nasal cautery, packing and operative techniques in the management of epistaxes 3 Know the complications of epistaxes and the management of them. 1 Understanding of the role of radiology and embolization in managing epistaxis	
Clinical Skills	3 Demonstrate expertise in taking an appropriate clinical history. 3 Ability to elicit physical signs both local and systemic if appropriate 3 Awareness of relevant haematological and imaging investigations. 2 Awareness of management principles in patient with epistaxis 4 Ability to resuscitate critically ill patient	
Technical Skills and Procedures	2 Diagnostic nasendoscopy 4 Packing of nose 4 Removal of nasal packing 4 Cautery of nasal septum 1 Ethmoid Artery ligation 1 Sphenopalatine artery ligation	Strongly recommended Flexible nasendoscopy Desirable Rigid nasal endoscopy Nasal packing

Topic	Nasal trauma and deformity
Category	Rhinology
Sub-category:	None
Objective	*To understand the presenting features, diagnosis, complications and management of nasal trauma and deformity. This module gives some idea of the breadth and depth of required knowledge and surgical skills. This list should not be considered to be fully inclusive or exhaustive.*
Knowledge	4 Understanding of the anatomy of the nose, paranasal sinuses and facial skeleton. 1 Understanding of the mechanisms of trauma responsible for nasal and facial injuries. 1 Knowledge of objective assessment of nasal function eg rhinomanometry 2 Knowledge of the appropriate imaging techniques 2 Knowledge of the specific complications of nasal trauma 2 Knowledge of the management of nasal trauma 2 Knowledge of the management of nasal deformity 3 management of critically ill patient with facial trauma 4 Glasgow Coma scale
Clinical Skills	3 Ability to take a relevant history and perform an appropriate clinical examination 2 Knowledge of the relevant special investigations and correct interpretation 4 Ability to adequately resuscitate the critically ill patient
Technical Skills and Procedures	2 Fracture nose reduction 4 Packing of nose 2 Management of traumatically induced epistaxis 1 Septoplasty 1 Septorhinoplasty

Topic	Nose and sinus infections	Areas in which simulation should be used to develop relevant skills
Category	Rhinology	
Sub-category:	None	
Objective	*To understand the aetiology, pathophysiology, and microbiology. There should be detailed understanding of the presenting features, complications, diagnosis, and management of these infections. This module gives some idea of the breadth and depth of required knowledge and surgical skills. This list should not be considered to be fully inclusive or exhaustive.*	
Knowledge	4 Detailed knowledge of anatomy and physiology of the nose and paranasal sinuses 4 Know the microbiology of acute and chronic rhinosinusitis 2 understanding of special investigations to inform the diagnosis 3 Understanding of the management of acute and chronic rhinosinusitis. 2 Knowledge of the indications for, techniques of and complications of surgical management 2 Knowledge of the complications of sinusitis and their management.	
Clinical Skills	3 Demonstrate an ability to take an appropriate history and perform a nasal examination with a speculum and endoscope. 2 Awareness of the indications for and ability to interpret imaging including CT and MRI 2 Awareness of indications for other special investigations including microbiology, immunology etc	

Technical Skills and Procedures	2 preparation of the nose for endoscopic surgery 3 nasal endoscopy 1 antral washout – direct vision 1 inferior meatal antrostomy – direct vision + endoscopic 1 middle meatal antrostomy – endoscopic 2 nasal polypectomy – endoscopic including microdebrider 1 middle turbinate partial excision 1 uncinectomy – endoscopic 1 bullectomy – endoscopic 1 Anterior ethmoidectomy - endoscopic 1 posterior ethmoidectomy – endoscopic 1 sphenoidotomy – endoscopic	Desirable Rigid nasal endoscopy

Topic	**Nose and sinus inflamation including allergy**	**Areas in which simulation should be used to develop relevant skills**
Category	Rhinology	
Sub-category:	None	
Objective	*To understand the aetiology and pathophysiology of nasal & paranasal sinus inflammation. There should be detailed understanding of the presenting features, complications, diagnosis, and management of these infections. This module gives some idea of the breadth and depth of required knowledge and surgical skills. This list should not be considered to be fully inclusive or exhaustive.*	
Knowledge	4 Knowledge of anatomy and physiology of the nose and paranasal sinuses 3 Understanding of the aetiologies underlying inflammation of the nose and sinuses. 3 Know the role of allergy in the pathophysiology of inflammation of the nose and sinuses. 2 Understanding of the special investigations used in the assessment of nasal allergy. 2 Understanding of the imaging modalities to assess the nose and sinuses 2 Knowledge of the role of management of allergy, and drug treatment in nasal and sinus inflammation. 1 Knowledge of the indications for, techniques of and complications of surgical management	
Clinical Skills	3 Ability to take an appropriate history and perform endoscopic examination of the nose and sinuses. 1 Ability to interpret the result of allergy testing including skin prick testing 2 Know which haematological investigations & radiological imaging are appropriate.	
Technical Skills and Procedures	4 preparation of the nose for endoscopic surgery 3 nasal endoscopy	Desirable Rigid nasal endoscopy

Topic	Congenital abnormalities	Areas in which simulation should be used to develop relevant skills
Category	Rhinology	
Sub-category:	None	
Objective	*To understand the aetiology, clinical features and management of congenital nasal abnormalities. To understand how these may be associated with other syndromes. This module gives some idea of the breadth and depth of required knowledge and surgical skills. This list should not be considered to be fully inclusive or exhaustive.*	
Knowledge	4 Knowledge of the anatomy and physiology of the nose and paranasal sinuses. 3 Knowledge of the embryology of the nose and sinuses. 1 Knowledge of those conditions associated with congenital nasal abnormalities. 1 understanding of imaging modalities appropriate to the investigation of congenital abnormality	
Clinical Skills	2 Ability to take an appropriate history from the parent and child and perform relevant general and specific rhinological examination. 3 Nasal endoscopy	
Technical Skills and Procedures	3 Nasal endoscopy 3 Examination under anaesthesia	Desirable Rigid nasal endoscopy

Topic	Facial pain	Areas in which simulation should be used to develop relevant skills
Category	Rhinology	
Sub-category:	None	
Objective	*To understand the aetiologies, characteristics and management of conditions presenting with facial pain, including those causes not arising in the upper aerodigestive tract*	
Knowledge	4 Anatomy and physiology of the head and neck, including the face, TMJ, dentition and cervical spine 2 Understand the differential diagnosis of facial pain including organic and functional causes 1 Understand the various treatment modalities, both medical and surgical 1 Awareness of the multidisciplinary approach to management	
Clinical Skills	2 Ability to take a relevant history of facial pain 3 Ability to perform an appropriate ENT, neurological and locomotor examination 1 Understanding of the appropriate radiological investigations 1 Appropriate management to include onward referral for pharmacological, surgical and counselling therapies	
Technical Skills and	3 Outpatient endoscopy of upper aerodigestive tract 3 Examination under anaesthesia	Strongly recommended

Procedures	1 Biopsy - external nose 1 Biopsy – internal nose	Flexible nasendoscopy Desirable Rigid nasal endoscopy

Topic	Nasal polyps	Areas in which simulation should be used to develop relevant skills
Category	Rhinology	
Sub-category:	None	
Objective	*To understand the aetiologies, pathophysiology and clinical features of nasal polyps. There should be a detailed knowledge of the diagnostic features, management and complications.* *This module gives some idea of the breadth and depth of required knowledge and surgical skills. This list should not be considered to be fully inclusive or exhaustive.*	
Knowledge	2 A detailed knowledge of current understanding of the aetiologies and conditions associated with nasal polyps. 2 Knowledge of the clinical features of nasal polyps 2 Understand the medical management options of nasal polyps 3 Understand the clinical significance of unilateral nasal polyps 2 Knowledge of the indications for, techniques of and complications of surgical management	
Clinical Skills	3 Ability to take an appropriate history and perform an examination including nasal endoscopy. 2 Awareness of and ability to interpret imaging	
Technical Skills and Procedures	4 preparation of the nose for endoscopic surgery 3 nasal endoscopy 2 Endoscopic nasal polypectomy	Desirable Rigid nasal endoscopy

Topic	Granulomatous conditions	Areas in which simulation should be used to develop relevant skills
Category	Rhinology	
Sub-category:	None	
Objective	*To understand the aetiology, classification, clinical features and management of granulomatous conditions of the nose. This module gives some idea of the breadth and depth of required knowledge and surgical skills. This list should not be considered to be fully inclusive or exhaustive.*	
Knowledge	1 Understanding of the classification of nasal granulomatous conditions 1 Knowledge of the Pathophysiology of these conditions 1 Knowledge of the microbiology of specific nasal granulomatous conditions 1 Knowledge of the systemic and nasal features of granulomatous conditions eg sarcoidosis and Wegener's granulomatosis. 1 Understanding of methods of diagnosis. 1 Knowledge of management of these conditions. 1 Awareness of differential diagnosis	
Clinical Skills	3 Ability to take a relevant history and perform an appropriate clinical examination	

	1 Knowledge of the relevant special investigations and correct interpretation of them.	
Technical Skills and Procedures	3 diagnostic nasal endoscopy 3 examination under anaesthesia 3 biopsy – external nose 3 biopsy – internal nose	Desirable Rigid nasal endoscopy

Topic	**Sinonasal neoplasms**	**Areas in which simulation should be used to develop relevant skills**
Category	Sinonasal neoplasms	
Sub-category:	None	
Objective	*To understand the aetiology, clinical presentation and management of benign and malignant tumours of the nose and paranasal sinuses. This module gives some idea of the breadth and depth of required knowledge and surgical skills. This list should not be considered to be fully inclusive or exhaustive.*	
Knowledge	4 Knowledge of the anatomy of the nose and paranasal sinuses. 2 Pituitary physiology 3 Knowledge of the distribution of cervical lymph nodes 3 Understanding of the pattern of spread of malignancy in the head and neck 2 Knowledge of the different histological types of neoplasm in the nose and paranasal sinuses. 2 Understanding of the principles of medical and surgical management of neoplasms of the nose and sinuses. 1 Knowledge of the complications of both the diseases and their management.	
Clinical Skills	3 Ability to take a relevant history, perform an appropriate examination and interpret clinical findings correctly 2 Demonstrate a rational approach to special investigations 2 Participation in a multi disciplinary team approach to management of sinonasal neoplasms	
Technical Skills and Procedures	3 Examination of nose under anaesthesia 3 Biopsy of nose - external 3 Biopsy of nose – internal	Desirable Rigid nasal endoscopy

Topic	**Septorhinoplasty**
Category	Rhinology
Sub-category:	Facial Plastics
Objective	*To understand the presenting features, assessment, management and complications of nasal and septal deformity. This module gives some idea of the breadth and depth of required knowledge and surgical skills. This list should not be considered to be fully inclusive or exhaustive.*
Knowledge	4 Understanding of the anatomy of the nose, paranasal sinuses and facial skeleton. 1 Understanding the embryology of the nose 1 Understanding of the mechanisms of trauma responsible for nasal and facial injuries. 2 Understanding of methods of assessment of the facial skeleton 1 knowledge of surgical techniques including use of grafts 1 Knowledge of the specific complications of nasal surgery
Clinical Skills	3 Ability to take a relevant history and perform an appropriate clinical examination

	1 Ability to assess photographs and devise a surgical plan including onwards referral as appropriate

Topic	Congenital abnormalities	Areas in which simulation should be used to develop relevant skills
Category	Rhinology	
Sub-category:	Facial Plastics	
Objective	*To understand the aetiology, clinical features and management of congenital facial abnormalities. To understand how these may be associated with other syndromes.* *This module gives some idea of the breadth and depth of required knowledge and surgical skills. This list should not be considered to be fully inclusive or exhaustive.*	
Knowledge	3 Knowledge of the anatomy and physiology of the facial structures. 2 Knowledge of the embryology of the face including the nose, palate and neck. 1 Knowledge of those conditions associated with congenital facial abnormalities. 1 Relevant genetics	
Clinical Skills	3 Ability to take an appropriate history form the parent and child and perform relevant examinations. 3 Nasendoscopy if appropriate	
Technical Skills and Procedures	3 Examination under anaesthesia 1 Excision facial skin lesion including reconstructive techniques	Strongly recommended

Topic	Cosmetic Surgery	Areas in which simulation should be used to develop relevant skills
Category	Rhinology	
Sub-category:	Facial Plastics	
Objective	*To understand the presentation and analysis of cosmetic deformity of the face. This involves a detailed understanding of the anatomy of the skin and deeper structures and knowledge of the different facial aesthetic units. This module gives some idea of the breadth and depth of required knowledge and surgical skills. This list should not be considered to be fully inclusive or exhaustive.*	
Knowledge	3 Understanding of the anatomical areas and aesthetic units that make up the face. 2 Knowledge of relaxed skin tension lines 3 Understanding of the blood supply and innervation of the face. 1 Knowledge of the planes of dissection available. 2 Knowledge of the various procedures used in cosmetic facial surgery. 1 Knowledge of the limitations and complications of cosmetic facial surgery	
Clinical	3 Ability to take a relevant history and perform an appropriate clinical	

Skills	examination 1 Ability to assess facial deformity and devise a management plan	
Technical Skills and Procedures	3 Nasendoscopy 1 Excision skin lesion	Strongly recommended

Topic	**Reconstruction**	**Areas in which simulation should be used to develop relevant skills**
Category	Rhinology	
Sub-category:	Facial Plastics	
Objective	*To understand the methods available for facial reconstruction including, skin, muscle, cartilage, bone and implants. This involves a detailed understanding of the anatomy of the skin and deeper structures and in particular the blood supply of the tissues involved. Knowledge of the basic types of skin grafts, local flaps, regional flaps and free flaps is necessary. This module gives some idea of the breadth and depth of required knowledge and surgical skills. This list should not be considered to be fully inclusive or exhaustive.*	
Knowledge	4 Understanding of the applied anatomy of the head and neck 1 Understanding of the blood supply and innervation of the head and neck and of local, regional and free grafts. 1 Knowledge of the different types of flap and grafts available and the indications for their use	
Clinical Skills	3 Ability to take a relevant history and perform an appropriate clinical examination	
Technical Skills and Procedures	1 Excision skin lesion 2 Suture skin 1 Local flaps and grafts	Strongly recommended

Topic	**Disorders of Olfaction**	**Areas in which simulation should be used to develop relevant skills**
Category	Rhinology	
Sub-category:	Olfaction	
Objective		
Knowledge	4 Know the anatomy of the olfactory nerve including intracranial connections. 3 Know the physiology of olfaction 1 Know the causes of olfactory dysfunction 1 Know of the commonly used tests of olfaction	
Clinical Skills	3 Be competent at taking a comprehensive history and examination from a patient presenting with olfactory dysfunction. 1 Be competent at performing a formal assessment of olfaction using appropriate validated assessment techniques	

	1 Be competent at ordering and interpreting appropriate imaging to investigate olfactory dysfunction	
Technical Skills and Procedures	3 Nasendoscopy 3 Examination of nose and postnasal space 3 Nasal biopsy	Desirable Rigid nasal endoscopy

Skin cancer

Topic	**Skin Cancer**	**Areas in which simulation should be used to develop relevant skills**
Category	Skin cancer	
Sub-category:		
Objective	*To understand the aetiology, clinical presentation and management of benign and malignant tumours of the skin. This module gives some idea of the breadth and depth of required knowledge and surgical skills. This list should not be considered to be fully inclusive or exhaustive.*	
Knowledge	3 Know the anatomy and cellular composition of the skin. 2 Know the zones of the face and relaxed skin contour lines. 3 Know the physiology of skin. 3 Understand the principles of carcinogenesis 2 Know of the different types of skin cancer and their classification. 3 Know the presenting features and appearance of different types of skin cancer. 3 Know the causes and predisposing factors of skin cancer. 1 Know of the staging of different types of skin cancer. 1 Know of the treatment of different types of skin cancer. 2 Understand the rationale for the strategies to prevent skin cancer.	
Clinical Skills	3 Be able to take a comprehensive history and examination from a patient presenting with symptoms of skin cancer	
Technical Skills and Procedures	1 Skin biopsy 1 Excision of skin cancer and primary closure 1 Harvest of skin graft	Strongly recommended

Topic	**Surgical Management of Epiphora**	**Areas in which simulation should be used to develop relevant skills**
Category	Surgical Management of Epiphora	
Sub-category:		
Objective	*To understand the aetiology and pathophysiology of epiphora. There should be detailed understanding of the presenting features, diagnosis, and*	

	management of this disorder. This module gives some idea of the breadth and depth of required knowledge and surgical skills. This list should not be considered to be fully inclusive or exhaustive.	
Knowledge	3 Anatomy of the lacrimal system 4 Intranasal anatomy 3 Physiology of lacrimation 2 Causes of epiphora 2 'Red Flag' symptoms	
Clinical Skills	3 Take a comprehensive history from a patient presenting with epiphora 1 Relevant ophthalmic examination	
Technical Skills and Procedures	3 Nasal endoscopy 1 EUA Nose	Desirable Rigid nasal endoscopy

Assessment

The speciality elements of the early years will all be assessed primarily in the workplace and then scrutinised in the Annual Review of Competency Progression. All these documents would be included in a portfolio which would contribute as evidence in subsequent applications to enter ST3.

Specific evidence includes

Assessment type (1 WPBA per week as a minimum)	Subject
DOPS a selection of types and numbers of each type according to learning agreements	Adult Rigid Nasal Endoscopy Aural microsuction Biopsy small oral or skin lesion Changing tracheostomy tube Drainage of peritonsillar abscess Epistaxis Epley Manoeuvre Fine Needle Aspiration Cytology Flexible Nasoendoscopy Flexible nasolaryngoscopy Myringotomy and insertion of grommet Packing of nose Positional Test for diagnosis of vertigo (Dix Hallpike Test) Reduction of simple nasal fractures Removal of foreign body from nose of child
Case Based Discussion	At least two per placement (six per year)
CEX	Clinical assessment of patients with common conditions
PBAs	Elective adult tracheostomy Excision neck node Nasal polypectomy Rigid Laryngoscopy Tonsillectomy Adenoidectomy Myringotomy and VT insertion Pharyngoscopy Rigid laryngoscopy/pharyngosocpy/oesophagoscopy
MSF	1 a year
Training Supervisors report	Evidenced by the above WPBAs
ARCP for each specified training interval	As per local Deanery specifications
DO-HNS / MRCS(ENT)	Examination syllabus

DO-HNS and MRCS(ENT)

From August 2011, Otolaryngology trainees at CT1/2 level in ENT themed core surgical training posts should undertake Part A of MRCS and the Part 2 DO-HNS OSCE which will allow candidates to acquire the Intercollegiate MRCS(ENT) Diploma. The DO-HNS examination still exists as a separate entity but is not a requirement for ST3 unless paired with the MRCS as explained above.

Final Stage Overview

Entry into ST3

Entry into ST3 will usually involve a competitive selection process. The current person specifications for entry into ST3 in Otolaryngology are shown on the Modernising Medical Careers website. The essential components here are completion of the common component of the core surgical training programme (as evidenced by successful ARCP, WPBA and completion of the MRCS examination) and completion of the Otolaryngology specific components of the early years training as evidenced by a successful ARCP and completion of the appropriate WPBAs.

By CCT trainees should be competent in the management of the following procedures and conditions. The exact level of competence is set out in more detail in the topic sections. It is expected that by CCT all trainees will have developed an area of special interest and can demonstrate a higher level of proficiency in their chosen area of expertise.

EMERGENCIES

- Tracheostomy and airway management in the acute situation
- Exploration of the neck for sepsis and trauma
- Pharyngo-oesophagoscopy for removal of foreign bodies
- Drainage of peritonsillar abscesses
- Complications of head and neck surgery
- Tonsillitis
- Tonsillar and adenoid haemorrhage
- Removal of foreign bodies from the nose and ear
- Epistaxis management, surgical and non surgical
- Complications of sinusitis
- Drainage of orbital abscess
- Nasal trauma
- Facial palsy including postoperative complications
- Otological trauma
- Facial palsy
- Mastoiditis and complications
- Otitis externa

ELECTIVE

Otology

- Infective and non infective conditions of the external ear
- Infective and non infective disorders of the middle ear
- Infective and non infective disorders of the inner ear
- Hearing loss
- Tinnitus
- Vertigo and balance disorders
- Neoplastic and non neoplastic disease of the skull base
- Surgical and non surgical rehabilitation of hearing

Paediatric ORL

- Paediatric airway disorders
- Congenital disorders affecting the ear, nose and throat.
- Conditions of the tonsils and adenoids
- Sleep disordered breathing
- Hearing disorders in childhood

- Drooling
- Paediatric neoplasia affecting the ears, nose and throat
- Universal neonatal hearing screening

Rhinology

- Acute and chronic Rhinosinusitis
- Nasal polyps
- Disorders of the sense of smell
- Facial pain
- Nasal and facial deformity including trauma
- Sinonasal malignancy
- Epiphora
- Allergy
- Skin cancer of the head and neck

Head and Neck

- OSAS and snoring
- Voice disorders
- Disorders of swallowing
- Thyroid disease
- Adenotonsillar pathology
- Cervical lymphadenopathy
- Neck lumps
- Head and neck oncology
- Disorders of the oral cavity including malignancy
- Diseases of the salivary glands

Click on Workplace Based Assessments to view the assessment forms including DOPS and PBAs

ENT trainees are required to use the FHI e-logbook to record their operations

FINAL STAGE TOPICS FOR ALL TRAINEES

Paediatric Otolaryngology

Topic	Foreign bodies in the ear canal and UADT	**Areas in which simulation should be used to develop relevant skills**
Category	Paediatric Otolaryngology	
Sub-category:	Foreign bodies in the ear nose and throat	
Objective	Safe definitive management of children with suspected and actual foreign bodies in the ear nose and pharynx; primary management of inhaled foreign bodies to facilitate safe transfer for tracheobronchoscopy if required. *This module gives some idea of the breadth and depth of required knowledge and surgical skills. This list should not be considered to be fully inclusive or exhaustive*	
Knowledge	4 Anatomy and physiology of the paediatric airway 4 Recognition of anatomical differences between the adult and paediatric airway. 4 Recognition of the clinical features of foreign bodies in the ear, nose, and throat 4 Knowledge of the natural history and the complications associated with foreign bodies. 4 Concept of the shared airway and differing anaesthetic techniques	
Clinical Skills	HISTORY AND EXAMINATION 4 Ability to take a thorough history from the child/carer 4 Otoscopy 4 Anterior rhinoscopy 4 Flexible pharyngolaryngoscopy DATA INTERPRETATION 4 Assessment of plain radiography (e.g. chest x-ray and soft tissue neck x-ray). PATIENT MANAGEMENT 4. Recognition of the clinical signs of respiratory distress in children 3. Emergency airway care in conjunction with anaesthetists and paediatricians.	
Technical Skills and Procedures	4 Otomicroscopy and removal of foreign body 4 Removal of nasal foreign body & examination with paediatric & rigid scopes4 Pharyngo-oesophagoscopy and foreign body removal 2 Rigid bronchoscopy and foreign body removal from larynx and trachea	Desirable MLB Bronchoscopy and removal of foreign body

Topic	Trauma to the ear, upper aero digestive tract and neck
Category	Paediatric Otolaryngology
Sub-category:	Trauma to the head and neck
Objective	To be competent in the recognition of paediatric head and neck trauma and its management. To recognise when to refer complicated cases for further assessment and treatment. *This module gives some idea of the breadth and depth of required knowledge and surgical skills. This list should not be considered to be fully inclusive or exhaustive*
Knowledge	4 Anatomy of the head and neck in children 4 Recognition of anatomical differences between the adult and paediatric airway 4. Mechanisms of trauma to the facial skeleton and soft tissues 4 Know the causes and presentation of nasal septal haematoma 4 Know the causes and presentation of ear trauma (external, middle and inner) 4 Know the causes and presentation of trauma to the neck, pharynx and larynx 4 Knowledge of common aetiologies and awareness of the possible presentations of non-accidental injury to the ENT department. 4 Understand how child abuse is classified, how it may present to otolaryngologists and the mechanism of onward referral and management
Clinical Skills	HISTORY AND EXAMINATION 4 Ability to take a thorough history from child/parent 4 Assessment of the external nose and nasal airway 4 Clinical examination of the ear 4 Assessment of the neck including the airway 4 Otoscopy DATA INTERPRETATION 4 Age appropriate hearing test, tympanometry PATIENT MANAGEMENT 4 Recognition of the signs of respiratory distress in a child 4 Resuscitation of a child in hypovolaemic shock secondary to bleeding 4 Aware of the local protocol for the reporting of suspected non-accidental injury
Technical Skills and Procedures	4 Nasal fracture manipulation 4 Laryngoscopy, Pharyngoscopy 4 Drainage of septal haematoma 4 Drainage of haematoma of pinna 3 Exploration of neck 3 Paediatric Tracheostomy

Topic	Epistaxis in a child
Category	Paediatric Otolaryngology
Sub-category:	Epistaxis
Objective	Optimum recognition and management of children with epistaxis; *This module gives some idea of the breadth and depth of required knowledge and surgical skills. This list should not be considered to be fully inclusive or exhaustive*
Knowledge	4 Nasal anatomy & physiology 4 Pathophysiology, epidemiology, & natural history of paediatric epistaxis 4 Current approach to treatment of epistaxis to include awareness of the evidence base for current treatment regimens. 4 Understand the aetiologies of paediatric epistaxis (local including nasopharyngeal angiofibroma, and systemic including coagulopathies) 4 Know the relevant investigation and treatments of paediatric epistaxis

Clinical Skills	HISTORY AND EXAMINATION 4 Ability to take a thorough history from the child/carer 4 Anterior Rhinoscopy 4 Flexible Nasendoscopy DATA INTERPRETATION 4 Interpretation of full blood count & other haematological investigations; awareness of significance of coagulation tests PATIENT MANAGEMENT 4 Medical and surgical management of epistaxis
Technical Skills and Procedures	4 Nasal cautery 4 EUA nose 4 Appropriate nasal packing in a child (see also adult rhinology section)

Topic	Rhinosinusitis; orbital and intracranial complications of rhinosinusitis
Category	Paediatric Otolaryngology
Sub-category:	Nose and Sinus infections
Objective	Optimum recognition and management of children with rhinosinusitis; particularly complicated sinus disease e.g. subperiosteal abscess, intracranial sepsis. *This module gives some idea of the breadth and depth of required knowledge and surgical skills. This list should not be considered to be fully inclusive or exhaustive*
Knowledge	4 Nasal anatomy & pathophysiology 4 Epidemiology, natural history & presenting symptoms of rhinosinusitis in children 4 Current approach to treatment of infective rhinosinusitis to include awareness of the evidence base for current treatment regimens. 4 Recognition and competence in the emergency management of the complications of rhinosinusitis.
Clinical Skills	HISTORY AND EXAMINATION 4 Ability to take a thorough history from the child/carer 4 Anterior Rhinoscopy 4 Flexible Nasendoscopy 4 Otoscopy DATA INTERPRETATION 4 Awareness of imaging techniques 3 Assessment of abnormalities on CT scanning of the paranasal sinuses and MR brain. PATIENT MANAGEMENT 4 Medical and surgical management of rhinosinusitis and its complications.
Technical Skills and Procedures	4 EUA Nose 2 Endoscopic Nasal Polypectomy 3 External drainage of subperiosteal abscess 2 External drainage of the frontal sinus

Topic	Airway pathology in childhood	**Areas in which simulation should be used to develop relevant skills**
Category	Paediatric Otolaryngology	
Sub-category:	Airway Disorders	

Objective	Safe recognition of the main patterns of presentations and likely aetiologies of children with airway obstruction at birth, in infancy and in later childhood. Includes primary management to enable definitive treatment of main conditions. *This module gives some idea of the breadth and depth of required knowledge and surgical skills. This list should not be considered to be fully inclusive or exhaustive*	
Knowledge	4 Anatomy of the paediatric airway, and differences between the adult and child. 4 Physiology of airway obstruction (Poiseulles law, Reynolds number) 4 Clinical features of airway obstruction 4 Clinical measures to determine severity of obstruction 4 Know the causes, presenting symptoms of airway pathology in children, 4 Know the treatment options and natural history of main conditions causing airway pathology in children at different ages e.g. laryngomalacia, vocal cord palsy, subglottic cysts, haemangioma, RRP, Laryngeal cleft, tracheobronchmalacia, acute epiglottitis and laryngotracheobronchitis (croup). 2 Understand the genetic disorders associated with airway pathology in children 2 Understand the role of laryngopharyngeal reflux in airway pathology in children	
Clinical Skills	HISTORY AND EXAMINATION 4 Ability to take a thorough history from the child/carer. 4 Assessment of the airway in a child 4 Flexible pharyngolaryngoscopy. DATA INTERPRETATION 4 Assessment of pulse oximetry findings, assessment of radiography at a basic level e.g. recognition of gross abnormalities on chest radiograph and CT PATIENT MANAGEMENT 4 Medical management in the acute and elective situation e.g. steroids, adrenaline, reflux. 3 Emergency airway care in conjunction with anaesthetist and paediatriciain.	Strongly recommended APLS
Technical Skills and Procedures	4 Paediatric flexible pharyngolaryngoscopy in the outpatients 3 Paediatric tracheostomy emergency and elective 4 Paediatric tracheostomy care including tube change 3 Diagnostic rigid airway endoscopy 2.Therapeutic rigid airway endoscopy.	Desirable Paediatric tracheostomy For paediatric specialists Airway reconstruction

Topic	**The drooling child**
Category	Paediatric Otolaryngology
Sub-category:	
Objective	*To be competent at assessing a child who presents with the symptom of drooling, and to understand the principles behind management of these patients*. *This module gives some idea of the breadth and depth of required knowledge and surgical skills. This list should not be considered to be fully inclusive or exhaustive*
Knowledge	4. Anatomy of the major and minor salivary glands 4. Anatomy of the oral cavity 4. Physiology of salivation

	4. Know the causes and predisposing factors (including syndromes) for drooling 3. Understand how multidisciplinary input is used in the management of drooling children. 3. Understand the principles of non medical, medical and surgical management of drooling children
Clinical Skills	4. Undertake a comprehensive history and examination of a child who presents with drooling 4. Be able to communicate an effective management plan to the patient and his or her carer 3 Work with colleagues from other specialities and disciplines to provide effective care for children presenting with drooling.
Technical Skills and Procedures	4 Tonsillectomy 4 Adenoidectomy 4 Flexible nasoendoscopy 2 Submandibular gland excision 1 Transposition of submandibular ducts 1 Neuromuscular blockade 1 Sublingual gland excision 1 Parotid and submandibular duct ligation

Topic	Acute tonsillitis, Diseases of the adenoids and their complications	**Areas in which simulation should be used to develop relevant skills**
Category	Paediatric Otolaryngology	
Sub-category:	Tonsils	
Objective	Definitive secondary-care management of adenotonsillar disease excluding OSA in otherwise healthy children. Management in syndromic and special needs children is often in a designated children's hospital. *This module gives some idea of the breadth and depth of required knowledge and surgical skills. This list should not be considered to be fully inclusive or exhaustive*	
Knowledge	4 Anatomy of the oral cavity, oropharynx and nasopharynx 4 Microbiology of the oral cavity, oropharynx and nasopharynx 4 Epidemiology, classification, aetiology and natural history of adenotonsillar disease. 4 Thorough understanding of the evidence base that underpins current treatment approaches. Awareness of controversies. 4 Understanding of specific management requirements in the very young, special needs and syndromic children	
Clinical Skills	HISTORY AND EXAMINATION 4 Ability to take a through history from child/parent. 4 Otoscopy 4 Examination of the oral cavity and oropharynx 4 Ability to recognise the child with possible OSA. DATA INTERPRETATION 4 Clinical assessment of the nasal airway PATIENT MANAGEMENT 4 Medical and surgical treatment. 4 Management of complications both of the disease (eg peritonsillar abscess) and of treatment	

Technical Skills and Procedures	4 Tonsillectomy 4 Adenoidectomy 4 Arrest of adenotonsillar bleeding as an emergency	Desirable Adenotonsillectomy Arrest of tonsillar haemorrhage

Topic	ENT related syndromes and cleft palate
Category	Paediatric Otolaryngology
Sub-category:	Congenital deformities affecting the head and neck
Objective	Appropriate primary management of children with ENT related syndromes and cleft palate, awareness of the principles and challenges that underpin long-term care. *This module gives some idea of the breadth and depth of required knowledge and surgical skills. This list should not be considered to be fully inclusive or exhaustive*
Knowledge	4 Embryology of the head and neck, including palate. 4 Anatomy of the head and neck in children 3 Recognition of the common ENT related sydromes and associations (e.g. Down's, Treacher Collins, Pierre Robin, Goldenhar, BOR, CHARGE, craniosynostosis). 3 Knowledge of the ENT manifestations of the conditions listed above 2 Knowledge of the general clinical problems encountered in these conditions with particular reference to safety of anaesthesia. 2 Basic understanding of the underlying genetics of these conditions.
Clinical Skills	HISTORY AND EXAMINATION 4 Ability to take a thorough history from the patient or carer. 4 Targeted examination of the child based on knowledge of the ENT manifestations of the condition. DATA INTERPRETATION 4 Interpretation of age-appropriate assessment of hearing and overnight pulse oximetry. 3 Recognition of abnormalities on imaging PATIENT MANAGEMENT 3 Able to participate in the multidisciplinary approach to children with complex needs. 3 Management of airway obstruction in children with craniofacial abnormalities in conjunction with anaesthetists . 4 Management of OME in children with cleft palate or Downs syndrome
Technical Skills and Procedures	4 Myringotomy & ventilation tube insertion 4 Flexible pharyngolaryngoscopy 4. Rigid airway endoscopy 3 Paediatric tracheostomy

Topic	Congenital and acquired neck masses
Category	Paediatric Otolaryngology
Sub-category:	Neck Masses
Objective	Safe recognition of main patterns of presentations of children with neck swellings at birth, in infancy and in later childhood. Includes primary management to enable definitive treatment of common conditions. *This module gives some idea of the breadth and depth of required knowledge and surgical skills. This list should not be considered to be fully inclusive or exhaustive*

Knowledge	4 Anatomy of the head and neck and upper mediastinum. 4 Applied embryology of thyroid gland with relation to thyroglossal cysts 4 Applied embryology of the branchial arches. 4 Anatomy of the neck spaces and understanding of the presentation, clinical features and primary management of abscesses and collections in these spaces 3 Classification of vascular malformations and awareness of treatment options 3 Knowledge of the clinical presentation and management of the commoner congenital abnormalities (e.g. cystic hygroma, teratoma, branchial abnormalities, thyroglossal cysts, lingual thyroid) 4 Awareness of the infective causes of neck lumps in children. (e.g.TB, HIV, other viral) 4 Management of persistent cervical lymphadenopathy and the appropriate use of investigations and surgical intervention. 4 Knowledge of the possible airway complications of neck masses and their management.
Clinical Skills	HISTORY AND EXAMINATION 4 Ability to take a thorough history from a patient or carer 4 Systematic examination of the child with particular reference to the neck 4 Be able to identify the signs of airway obstruction in a child DATA INTERPRETATION 4 Be able to identify the most appropriate imaging options available e.g. sonography, CT, MR scanning. 4 Interpretation of virology and microbiology investigations. 3 Interpretation of head and neck images. PATIENT MANAGEMENT 4 Be able to identify the most appropriate imaging options available e.g. sonography, CT, MR scanning. 4 Surgical and non-surgical treatment options for the management of neck masses. 3 Be able to work in a multidisciplinary team.
Technical Skills and Procedures	4 Flexible pharyngolaryngoscopy 4 Incision & drainage neck abscess 4 Biopsy neck node 2 Excision thyroglossal cyst 4 Diagnostic rigid airway endoscopy 3 Paediatric tracheostomy

Topic	Language delay and dysphonia in childhood
Category	Paediatric Otolaryngology
Sub-category:	Speech and language development
Objective	Awareness of the aetiology of language delay. Awareness of congenital and acquired laryngeal disorders affecting speech. *This module gives some idea of the breadth and depth of required knowledge and surgical skills. This list should not be considered to be fully inclusive or exhaustive*
Knowledge	4. Anatomy of the larynx in children and the physiology of voice production. 4 The normal developmental milestones with an emphasis on speech and language acquisition. 4 Common causes of delayed speech 4 Understanding of how hearing loss impacts on language acquisition 3. Management of laryngeal pathologies. 4. Understanding of age appropriate hearing tests. 4. Understanding of the controversies in the management of tongue tie.

Clinical Skills	HISTORY AND EXAMINATION 4 Ability to take a through history from child/carer 4 Otoscopy 4 Flexible pharyngolaryngoscopy. DATA INTERPRETATION 4 Age appropriate hearing test 4 Tympanometry PATIENT MANAGEMENT 3 Multidisciplinary approach in the management of children with speech and other developmental problems
Technical Skills and Procedures	4 Flexible nasoendoscopy and pharyngolaryngscopy 4 Division of tongue tie 4 Ventilation tube insertion.

Topic	Head and neck malignancy in childhood
Category	Paediatric Otolaryngology
Sub-category:	Oncology
Objective	Awareness of the epidemiology, presentation and principles of management of malignant disease in the head and neck. *This module gives some idea of the breadth and depth of required knowledge and surgical skills. This list should not be considered to be fully inclusive or exhaustive*
Knowledge	3 Knowledge of the common malignancies of the head and neck in childhood 4 Knowledge of presentation, investigations and management options in childhood cancers. 3 Understanding of issues relating to the management of the child and family with cancer including palliative care e.g. management of epistaxis and hearing loss. 4 Understanding of the need for a multidisciplinary approach to childhood cancer and the need for early referral to a regional oncology centre when malignancy is suspected.
Clinical Skills	HISTORY AND EXAMINATION 4 Ability to take a through history from child/carer 4 Examination of the head and neck 4 Examination of the cranial nerves 4 Otoscopy 4 Flexible pharyngolaryngoscopy PATIENT MANAGEMENT 4 Multidisciplinary approach to the management of childhood cancer. 3 Know the range of diagnostic tests available particularly imaging
Technical Skills and Procedures	4 Flexible pharyngolaryngoscopy, 3 Neck node biopsy after liaison with regional oncology services. 3 Biopsy of tumours after liaison with regional oncology services.

Topic	Congenital abnormalities of the ear
Category	Paediatric Otolaryngology
Sub-category:	Disorders of the external ear in children
Objective	Recognition and classification of the principle congenital anomalies of the ear. *This module gives some idea of the breadth and depth of required knowledge and surgical skills. This list should not be considered to be fully inclusive or exhaustive*
Knowledge	4 Understanding of the anatomy & embryology of the ear and related structures 4 Physiology of hearing 4 Knowledge of the clinical problems associated with dysplasia of the ear 2. Knowledge of common grading systems for microtia and atresia. 2 Knowledge of bone anchored auricular prosthesis and autologous pinna reconstruction.

Clinical Skills	HISTORY AND EXAMINATION 4 Ability to take a thorough history from the child/carer 4 Inspection of the external ear and recognition of main anomalies; 4 Otoscopy 4Clinical assessment of hearing DATA INTERPRETATION 4 Age-appropriate assessment of hearing; 4 Tympanometery; PATIENT MANAGEMENT 3 Demonstrate the ability to present the options for the rehabilitation of hearing loss in microtia; 4 Appropriate referral for ear reconstruction/prostheses; 3 Counselling of child and carers with microtia and other major anomalies of the external ear.
Technical Skills and Procedures	4 Otomicroscopy 2 Excision of preauricular sinus 4 Excision of simple lesions in and around the external ear 2 Surgery for prominent ears 2 Bone anchored hearing aid

Topic	Congenital deafness
Category	Paediatric Otolaryngology
Sub-category:	Deafness excluding otitis media and its complications
Objective	Awareness of the epidemiology and presentation of deafness, knowledge of range of causes, awareness of diagnostic and investigative strategies and knowledge of the principles that underpin rehabilitation including amplification and cochlear implantation. *This module gives some idea of the breadth and depth of required knowledge and surgical skills. This list should not be considered to be fully inclusive or exhaustive*
Knowledge	4 embryology of the ear including congenital deformities of the ear and their relationship to deafness 4 Physiology of hearing 4 knowledge of the molecular basis of genetic, syndromic and non-syndromic deafness 4 Knowledge of acquired causes including congenital infections (e.g. CMV, rubella) 4 Fundamental understanding of age appropriate audiological testing including universal neonatal screening (OAE,ABR). 4 Appropriate investigations for the congenitally deaf child (bilateral or unilateral) e.g. TORCH screen, dipstix for haematuria, MRI, genetic review 4 Multidisciplinary approach to the rehabilitation of the deaf child (bilateral and unilateral). 4 Knowledge of rehabilitative options including hearing aids 4 Knowledge of candidacy criteria for cochlear implantation and nature of surgery involved. 3 Awareness of the range of investigative options available including imaging (sonography, CT, MR scanning)
Clinical Skills	HISTORY AND EXAMINATION 4 Ability to take a thorough history from child/parent. 4 Otoscopy 4 Clinical assessment of hearing DATA INTERPRETATION 4. Age appropriate hearing test 4 Tympanometry PATIENT MANAGEMENT 4 Appropriate referral for hearing aids

Technical Skills and Procedures	4 Microscopic examination of the ear 4 Myringotomy & ventilation tube 1 Cochlear implant

Topic	The Dizzy Child	**Areas in which simulation should be used to develop relevant skills**
Category	Paediatric Otolaryngology	
Sub-category:	Dizziness	
Objective	To be competent in the assessment, investigation and management of a child presenting with dizziness	
Knowledge	4 Anatomy of the ear and vestibular system 4 Physiology of balance 4 Knowledge of the causes of balance disorders in children 3 Knowledge of the genetic causes of hearing loss associated with vestibular symptoms e.g. Ushers, NF2, Jervell-Lange-Nielson 3 Knowledge of appropriate investigations and subsequent management of vestibular disorders	
Clinical Skills	HISTORY AND EXAMINATION 4 Ability to take a thorough history from the child/carer 4 Otoscopy 4 Clinical assessment of vestibular function e.g. Dix Hallpike, head thrust, Unterbergers. 4 Neurological examination including cranial nerves DATA INTERPRETATION 4 Age appropriate hearing test 4 Tympanogram 3 Interpretation of vestibular testing-posturography, calorics, VEMP's 3 Identification of significant abnormalities from diagnostic imaging e.g. MRI, CT PATIENT MANAGEMENT 4 Explanation of diagnosis to child and family 3 Commencement of conservative, medical or surgical management of underlying vestibular pathology 4 Appropriate referral to allied health professionals or other specialities	
Technical Skills and Procedures	4 Myringotomy and ventilation tube insertion 2 Cholesteatoma surgery	Strongly recommended Temporal bone dissection (annual, Progression through training)

Topic	Otitis media (acute, chronic and with effusion) and complications and conditions of the external auditory canal	**Areas in which simulation should be used to develop relevant skills**
Category	Paediatric Otolaryngology	
Sub-category:	Otitis media and its complications	
Objective	Definitive secondary-care management of middle and external ear disease and its complications. *This module gives some idea of the breadth and depth of required knowledge and surgical skills. This list should not be considered to be fully inclusive or exhaustive*	
Knowledge	4 Anatomy of the external and middle ear cleft and surrounding structures 4 Physiology of hearing 4 Epidemiology, classification, aetiology and natural history of each variant of otitis media. 4 Know the indications for imaging 4 Know the evidence base which underpins current treatment approaches. 4 Demonstrate an understanding of the surgical management of cholesteatoma and the complications of otitis media 4 Knowledge of the indications for, and surgical principles of, bone anchored hearing aids and middle ear implants.	
Clinical Skills	HISTORY AND EXAMINATION 4 Ability to take a through history from child/parent 4 Otoscopy 4 Neurological examination including cranial nerves 4 Clinical assessment of hearing. DATA INTERPRETATION 4 Age appropriate hearing tests (including ABR, OAE, VRA, play audiometry) 4 Tympanometry 4. Identification of significant abnormalities from diagnostic imaging e.g. CT scan, MRI 4. Laboratory investigations e.g. blood tests, bacteriology results PATIENT MANAGEMENT 4 Medical, conservative and surgical management 4 Appropriate referrals and team working for children with complications of acute otitis media	
Technical Skills and Procedures	4 Otomicroscopy and aural toilet 4 Ventilation tube insertion 4 Myringoplasty 1 Ossiculoplasty 4 Cortical Mastoidectomy 2 Cholesteatoma surgery 2 Bone anchored hearing aid	Strongly recommended Temporal bone dissection (annual, Progression through training)

Topic	Facial palsy in childhood	**Areas in which simulation should be used to develop relevant skills**
Category	Paediatric Otolaryngology	
Sub-category:	Facial Palsy	
Objective	Safe primary management of children with facial palsy, recognition of clinical pathologies that present with facial palsy. *This module gives some idea of the breadth and depth of required knowledge and surgical skills. This list should not be considered to be fully inclusive or exhaustive*	
Knowledge	4 Anatomy of the facial nerve, and related structures 4. knowledge of the aetiologies (congenital and acquired) of facial palsy. 4 Knowledge of the initial investigations and management of a child with facial palsy 4. Knowledge of the natural history of childhood facial palsy. 4. Know when to refer to tertiary centre. 2 Awareness of the range of diagnostic tests and the principles that govern their use e.g. electroneuronography, imaging of the facial nerve	
Clinical Skills	HISTORY AND EXAMINATION 4 Ability to take a history from child/parent 4 Otoscopy 4 Examination of the head and neck 4 Assessment of the cranial nerves in children and grading of facial palsy 4 Clinical assessment of hearing DATA INTERPRETATION 2 Interpretation of specific investigations eg electroneuronography PATIENT MANAGEMENT 4 Pharmacological management (e.g steroids, anti-viral agents) 4 Eye protection	
Technical Skills and Procedures	4 Myringotomy and ventilation tube insertion 4 Cortical mastoidectomy & Drainage of mastoid abscess 2 Cholesteatoma surgery	Strongly recommended Temporal bone dissection (annual, Progression through training)

Topic	Rhinitis
Category	Paediatric Otolaryngology
Sub-category:	Inflammatory nasal disease (including allergic rhinitis)
Objective	Optimum recognition and management of children with rhinitis. *This module gives some idea of the breadth and depth of required knowledge and surgical skills. This list should not be considered to be fully inclusive or exhaustive*

Knowledge	4 Anatomy and embryology of the nose and sinuses. 4 Nasal physiology 4 Knowledge of the pathophysiology, epidemiology, symptomatology and natural history of rhinitis 3 Know the basic science of allergy 4 Knowledge of the scientific principles of common investigations e.g skin prick tests, RAST 4 Knowledge of the evidence base for current treatment of allergic rhinitis 4 Knowledge of imaging techniques; assessment of abnormalities on CT scanning of the paranasal sinuses 3 Understanding of scientific basis and methodology behind desensitisation in allergy
Clinical Skills	HISTORY AND EXAMINATION 4 Ability to take a thorough history from the child/carer 4 Anterior Rhinoscopy 4 Flexible Nasendoscopy 4 Otoscopy DATA INTERPRETATION 4 Skin prick tests for allergies; Blood tests for allergies; 2. immunological tests, ciliary function tests. PATIENT MANAGEMENT 4 Conservative, medical and surgical management of rhinitis
Technical Skills and Procedures	4 Turbinate surgery 4 EUA Nose & PNS 4 Nasal biopsy

Topic	Nasal Obstruction
Category	Paediatric Otolaryngology
Sub-category:	Nasal Polyps in Children
Objective	To be competent at the diagnosis of inflammatory nasal disease, the differential diagnosis and management of inflammatory nasal disease. *This module gives some idea of the breadth and depth of required knowledge and surgical skills. This list should not be considered to be fully inclusive or exhaustive*
Knowledge	4 Anatomy and embryology of the nose and sinuses. 4 Nasal physiology 4 Knowledge of the aetiology, clinical features and management of nasal polyps in children including their association with cystic fibrosis 4 Knowledge of the aetiologies of nasal obstruction at birth, in infancy and in later childhood e.g. choanal atresia, rhinitis, encephocele, glioma, angiofibroma. 4 Knowledge of the investigations (including imaging) and treatment of the above conditions. 4 Knowledge of related systemic conditions involving the nose e.g. Wegeners granulomatosis
Clinical Skills	HISTORY AND EXAMINATION 4 Ability to take a thorough history from the child or carer 4 Anterior Rhinoscopy 4 Flexible Nasendoscopy 4 Otoscopy DATA INTERPRETATION 4. Assessment of abnormalities on CT scanning of the paranasal sinuses 2. Immunological tests, ciliary function tests PATIENT MANAGEMENT 4 Medical and surgical management of nasal polyposis 3 Investigation of nasal masses

Technical Skills and Procedures	2 Endoscopic Nasal Polypectomy 2 Endoscopic sinonasal surgery 4 Nasal biopsy 4 Examination nose and PNS 1 Choanal atresia surgery

Topic	Obstructive sleep apnoea
Category	Paediatric Otolaryngology
Sub-category:	Airway obstruction in childhood
Objective	Optimum recognition and management of children with possible obstructive sleep apnoea. *This module gives some idea of the breadth and depth of required knowledge and surgical skills. This list should not be considered to be fully inclusive or exhaustive*
Knowledge	4. Anatomy of the upper airway 3 Physiology of sleep 4. Knowledge of multi-level obstruction 4. Knowledge of the concept of sleep disordered breathing 4. Knowledge of the complications of upper airway obstruction 4. Knowledge of appropriate investigations and treatment. 4. Knowledge of the relevance of co-morbidities 4. Assessment of low versus high risk patients and appropriate referral
Clinical Skills	HISTORY AND EXAMINATION 4 Ability to take a thorough history from the child/carer 4 Examination of the oral cavity, oropharynx and chest wall 4 Anterior Rhinoscopy 4 Flexible Nasendoscopy DATA INTERPRETATION 4 Interpretation of sleep studies 1 ECG/CXR/echo manifestations PATIENT MANAGEMENT 4 Conservative, medical and surgical management of OSA
Technical Skills and Procedures	4 EUA PNS and adenoidectomy 4 Tonsillectomy 3 Paediatric tracheostomy

HEAD AND NECK

Topic	Adenoid and tonsillar pathology in adults	Areas in which simulation should be used to develop relevant skills
Category	Head and Neck	
Sub-category:	None	
Objective	*To understand the aetiology, presenting signs, symptoms and management of benign adenotonsillar and pharyngeal disease. This module gives some indication of the breadth and depth of required knowledge and surgical skills. The list should not be considered to be fully inclusive or exhaustive.*	
Knowledge	4 Demonstrate a detailed knowledge of the anatomy, physiology, pathology & microbiology of the oro and nasopharynx incl relevant anatomical relationships 4 Know the presenting signs and symptoms of benign adenotonsillar & pharyngeal disease 4 Know the complications of adenotonsillar infection. 4 Understand the investigation, differential diagnosis and complications of adenotonsillar hypertrophy 4 Know the 'red flag' indicators of malignant disease of the pharynx	
Clinical Skills	4 Demonstrate expertise at eliciting an appropriate clinical history and physical signs of benign adenotonsillar and pharyngeal disease and the complications of treatment including those involving the airway 4 Diagnosis and medical management of post-operative haemorrhage following adenotonsillar surgery	
Technical Skills and Procedures	4 Incision and drainage of peritonsillar abscess. 4 Manage the compromised airway due to hypertrophy 4 Tonsillectomy and adenoidectomy in adults 4 Surgical management of post-operative bleeding following adenotonsillar surgery	Desirable Ts +/- As Arrest tonsillar haemorrhage

Topic	Airway obstruction in adults	Areas in which simulation should be used to develop relevant skills
Category	Head and Neck	
Sub-category:	None	
Objective	*To understand the aetiology, presenting signs, symptoms and management of patients presenting with upper airway disorders in the emergency situation in adults. This module gives some indication of the breadth and depth of required. Knowledge and surgical skills. The list should not be considered to be fully inclusive or exhaustive.*	
Knowledge	4 Demonstrate a detailed knowledge of the anatomy & physiology of the larynx, trachea, pharynx and oral cavity 4 Understand the microbiology and pathology of disorders of the upper aerodigestive tract. 4 Understand the classification of diseases that may present with	

	airway obstruction. 4 Understand the principles of patient management of patients presenting with airway obstruction. 4 Know the different methods of securing an airway safely (surgical & non surgical) in an emergency setting 4 Understand the indications & techniques for surgical debulking of upper airway malignancies	
Clinical Skills	4 Be able to elicit an appropriate clinical history and correctly interpret physical signs. 4 Be aware of the role of appropriate investigation in the management of airway obstruction 4 Demonstrate the ability to work effectively with anaesthetists and those involved in critical care who manage the 'shared airway'. 4 Demonstrate expertise in the safe assessment of patients with critical airways.	
Technical Skills and Procedures	4 Be competent at performing the following diagnostic procedures; fibreoptic nasopharyngoscopy, direct laryngoscopy, microlaryngoscopy, bronchoscopy, pharyngo oesophagoscopy 3 Be competent at performing endotracheal intubation 4 Be proficient at performing a surgical tracheostomy in the elective & emergency setting both under general and local anaesthesia 1 Percutaneous tracheostomy 4 Be competent at foreign body removal from the airway in adults 2 Debulking procedures (laser/microdebrider) 4 Tracheostomy change	Strongly recommended Tracheostomy Pharyngoscopy Laryngoscopy Removal of foreign bodies

Topic	**Aetiology and management of craniocervical trauma in adults**	**Areas in which simulation should be used to develop relevant skills**
Category	Head and Neck	
Sub-category:	None	
Objective	*To understand the aetiology, presenting signs, symptoms and management of a patient with craniocervical trauma. This module gives some indication of the breadth and depth of required knowledge and surgical skills. The list should not be considered to be fully inclusive or exhaustive.*	
Knowledge	4 Understand the anatomy of the head and neck 4 Understand the pathophysiological effects of blunt, penetrating and high and low velocity projectile trauma to the bones and soft tissues of the head and neck 4 Understand the Le Fort classification of facial fractures and their effects. 3 Understand the classification of fractures of the mandible and their effects 4 Understand the classification of fractures of the temporal bone and their effects. 4 Understand the consequences and potential complications of injury to structures in the neck, in the 3 horizontal entry zones of the neck. 4 Understand the principles underpinning the appropriate investigation of a patient with a penetrating injury of the neck 4 Understand the principles of the Glasgow Coma Scale and the management of the patient with an altered level of consciousness. 4 Understand the principles of management of traumatic injury to the head and neck, including the indications for urgent surgical exploration and the priorities underpinning the planning of investigation and	

	management. 4 Understand the need for a multidisciplinary approach to management of craniocervical trauma 4 Understand the pathophysiology of chemical and thermal burn injury to the upper aerodigestive tract & principles of management	
Clinical Skills	4 Be able to elicit an appropriate clinical history from a patient with craniocervical trauma (or from a third party witness). 4 Be able to demonstrate the relevant clinical signs from a patient with craniocervical trauma. 4 Be able to appropriately order and interpret the results of investigations in a patient with craniocervical trauma. 4 Be able to coordinate the assembly of an appropriate multidisciplinary team to manage a patient with craniocervical trauma.	
Technical Skills and Procedures	4 Tracheostomy 3 Endotracheal intubation 4 Be able to explore the traumatized neck and secure bleeding vessels. 4 Be able to manage penetrating injury to the viscera of the upper aerodigestive tract 1 Be able to undertake microsurgical reanastomosis of divided nerves where appropriate	Strongly recommended Tracheostomy Neck exploration Endotracheal intubation Desirable Neural anastomosis

Topic	**Disorders of swallowing**	**Areas in which simulation should be used to develop relevant skills**
Category	Head and Neck	
Sub-category:	None	
Objective	*To understand the aetiology, presenting signs, symptoms and management of common disorders of swallowing, including dysphagia, globus pharyngeus ,neurological swallowing disorders, reflux disease, odynophagia and aspiration. This module gives some indication of the breadth and depth of required knowledge and surgical skills. The list should not be considered to be fully inclusive or exhaustive*	
Knowledge	4 Know the anatomy of the pharynx, and physiology of swallowing. 4 Know the causes of odynophagia. 4 Know the various hypotheses relating to the aetiology of dysphagia. 4 Understand the investigation and imaging of a patient with dysphagia. 4 Understand the principles of medical and surgical management of dysphagia 4 Understand the pathophysiology of aspiration, its complications and the principles of management 4 Understand the aetiology and management of globus pharyngeus 4 Understand the aetiology and management of laryngopharyngeal reflux.	
Clinical Skills	4 Elicit an appropriate clinical history and clinical signs. 4 Be able to examine the pharynx and oesophagus with mirrors and endoscopes in outpatients 4 Be able to work in cooperation with Speech & language therapists in the management of dysphagia 4 Be aware of 'red flag' symptoms in the differential diagnosis of dysphagia 2 Interpretation of videofluoroscopic swallowing studies	

Technical Skills and Procedures	4 Flexible fibreoptic nasopharyngolaryngoscopy 3 Fibreoptic endoscopic evaluation of swallowing studies 4 Endoscopic examination of pharynx, larynx and oesophagus under general anaesthesia 4 Removal of foreign bodies from the pharynx, larynx and oesophagus under general anaesthesia 3 Endoscopic pharyngeal pouch surgery 1 Open pharyngeal pouch surgery	Strongly recommended Pharyngoscopy Laryngoscopy Removal of foreign bodies

Topic	Aetiology and management of cervical sepsis	Areas in which simulation should be used to develop relevant skills
Category	Head and Neck	
Sub-category:	None	
Objective	*To understand the aetiology, presenting signs, symptoms and management of a patient with cervical sepsis. This module gives some indication of the breadth and depth of required knowledge and surgical skills. The list should not be considered to be fully inclusive or exhaustive.*	
Knowledge	4 Know the anatomy of the fascial compartments of the neck. 4 Understand the pathogenesis(including congenital abnormalities) and clinical presentation of deep neck space infections. 4 Know the microbiology of deep neck space infections. 4 Understand the principles of medical and surgical management of deep neck space infection, including image guided drainage procedures. 4 Understand the complications of deep neck space infections and their management.	
Clinical Skills	4 Be able to elicit an appropriate history from a patient with deep cervical sepsis. 4 Be able to demonstrate the relevant clinical signs from a patient with deep cervical sepsis. 4 Be able to order and interpret the results of appropriate investigations, including imaging and microbiological cultures, in a patient with deep cervical sepsis. 4 Be able to undertake treatment of a patient with deep cervical sepsis or complications thereof.	
Technical Skills and Procedures	4 Be proficient in rigid endoscopic examination of the upper aerodigestive tract 4 Be proficient in management of the compromised upper airway in deep cervical sepsis, including tracheostomy. 4 Manage the patient in conjunction with anaesthetists/intensivists 4 Be competent in the incision and drainage of a deep cervical abscess, as well as demonstrating awareness of the complications of such procedures.	Strongly recommended Tracheostomy Neck exploration

Topic	Aetiology and management of congenital abnormalities of the head and neck affecting adults (including branchial & thyroglossal cysts, pharyngeal diverticulae, cleft lip & palate)	Areas in which simulation should be used to develop relevant skills
Category	Head and Neck	
Sub-category:	None	
Objective	*To understand the aetiology, presenting signs, symptoms and management of a patient with congenital abnormality of the head and neck. This module gives some indication of the breadth and depth of required knowledge and surgical skills. This section complements the paediatric section as most of the problems will present there. The list should not be considered to be fully inclusive or exhaustive.*	
Knowledge	4 Understand the embryology of the head and neck. 4 Know the anatomy of the neck.	

	4 Understand the morphology and classification of pharyngeal diverticulae. 4 Understand the pathophysiological effects of pharyngeal diverticulae and the principles underlying their management 4 Understand the theories relating to the pathogenesis of branchial arch abnormalities including branchial cyst, collaural fistula, external ear malformations, thyroglossal duct related malformations, cervical sinuses and fistulae.(ie branchial cleft abnormalities) 4 Understand the principles of management of branchial arch abnormalities including branchial cyst, collaural fistula, external ear malformations, thyroglossal duct related malformations, cervical sinuses and fistulae. 4 Know of syndromes associated with congenital abnormalities of the head and neck 3 Understand the morphology and classification of dentoalveolar malformations and the principles underlying their management. 4 Understand the morphology and classification of congenital abnormalities of the larynx, trachea and oesophagus and the principles underlying their management. 4 Understand the morphology, classification of and pathophysiological effects of cleft lip and palate, and the principles of management thereof. 4 Understand the investigation of congenital abnormalities of the head and neck including imaging and examination under anaesthesia.	
Clinical Skills	4 Be able to elicit an appropriate history from a patient with a congenital abnormality of the head and neck. 4 Be able to demonstrate the relevant clinical signs from a patient with a congenital abnormality of the head and neck. 4 Be able to undertake appropriately ordered investigation of a congenital abnormality of the head and neck. 3 Be able to interpret imaging of congenital abnormalities of the head and neck. 4 Understand the role of a multidisciplinary team in the management of congenital abnormalities of the head and neck.	
Technical Skills and Procedures	4 Be able to perform appropriately directed examination under anaesthesia , including endoscopic assessment of a congenital abnormality of the head and neck. 3 Be able to excise a pharyngeal diverticulum using endoscopic techniques. 4 Be able to perform surgery to remove abnormalities of the thyroglossal duct. 4 Be able to perform a tracheostomy under general and local anaesthesia. 4 Be able to excise a branchial cyst. 1 Be able to excise a branchial fistula	Strongly recommended Tracheostomy Pharyngoscopy Laryngoscopy Neck exploration

Topic	Cervical lymphadenopathy in adults	Areas in which simulation should be used to develop relevant skills
Category	Head and Neck	
Sub-category:	None	
Objective	*To understand the aetiology, presenting symptoms & signs and management of patients presenting with cervical lymphadenopathy. This module gives some indication of the breadth and depth of required knowledge and surgical skills. The list should not be considered to be fully inclusive and exhaustive.*	
Knowledge	4 Demonstrate knowledge of the aetiology & pathology of cervical lymphadenopathy including manifestations of systemic disease. 4 Be able to order the appropriate investigations of neck masses 4 Understand the anatomy of the neck, and distribution of cervical lymph nodes. Classify the lymphatic levels of the neck according to the MSK classification. 4 Demonstrate knowledge of the differing histological and microbiological causes of cervical lymphadenopathy. 4 Presentation, aetiology, investigations and pattern of metastatic spread of upper aerodigestive tract, salivary gland, cutaneous and thyroid malignancies. 4 Demonstrate knowledge of the presentation, aetiology, investigations and principles of management of lymphoreticular disease as it applies to the head and neck. 4 Principles of management of patients with cervical lymphadenopathy including specifically the management of the unknown primary malignant neck lump. 4 Demonstrate knowledge of the indications for medical & surgical management and the complications of management.	
Clinical Skills	4 Be able to take a relevant detailed history and interpret clinical signs correctly.	
Technical Skills and Procedures	4 Fine needle aspiration cytology 4 Out patient and in-patient endoscopy of the UADT. 4 Excision of cervical lymph nodes and deal with the complications 2 Radical Neck dissection 4 Selective neck dissection 1 Modified radical neck dissection	Strongly recommended Neck dissection

Topic	Head and neck malignancies in the upper aerodigestive tract excluding the oral cavity	Areas in which simulation should be used to develop relevant skills
Category	Head and Neck	
Sub-category:	None	
Objective	*To understand the aetiology of head and neck malignancies in the upper aerodigestive tract, presenting signs, symptoms and management of patients presenting with HNC. This module gives some indication of the breadth and depth of required. Knowledge and surgical skills. The list should not be considered to be fully inclusive or exhaustive*	
Knowledge	4 Understand the classification of head and neck malignancies in	

	particular squamous carcinoma as it is the commonest type (HNC) and know the principles of TNM staging. 4 Know the pathology of HNC 4 Understand the presenting signs and symptoms of head and neck cancer. 4 Understand the various hypotheses relating to the aetiology of squamous cell cancer including the cellular basis of oncogenesis. 4 Understand the pattern of spread of malignant disease. 4 Understand how HNC is managed in the multidisciplinary setting. 4 Know the indications for imaging in HNC and the use of relevant imaging modalities. 4Understand the functional consequences of head and neck cancer, and its treatment. 4 Understand the principles involved in and evidence for the various medical and surgical methods of treatment available for head and neck cancer. 4 Understand the role of surgical and medical treatment in palliative management of patients 4 Understand the indications for reconstructive and rehabilitative surgery (including surgical voice restoration) in HNC 4 Know of the various reconstructive options available in HNC 4 Be aware of national and local guidelines for the management of HNC 4 Know the complications of surgical and non surgical treatment of HNC and the multidisciplinary management of these complications 3 Understand the basic science underpinning chemotherapy & radiotherapy 3 Understand the principles of treatment of chemotherapy and radiotherapy and different techniques and regimes	
Clinical Skills	4 Elicit a relevant clinical history and clinical signs including being able to perform an appropriate examination. 4 Be able to work within the MDT, and recognise the contributions made by all team members. 4 Demonstrate good communication skills with other professionals. 4 Be able to break bad news sensitively and appropriately to patients and their families 4 Demonstrate competence in the management of acute complications of head and neck surgery	Strongly recommended for those specialising in head & neck Desirable Advanced communication skills
Technical Skills and Procedures	4 Be able to perform the following diagnostic procedures; microlaryngoscopy, pharyngo-oesophagoscopy, tonsillectomy, examination of postnasal space, bronchoscopy, Fine Needle Aspiration Cytology (FNAC) 1 Total Laryngectomy 2 Radical Neck dissection 4 Selective neck dissection 1 Modified radical neck dissection 2 Open and endoscopic excision of pharyngeal tumours 2 Transoral laser surgery 2 Reconstructive surgery with myocutaneous (pedicled) flaps 1 Reconstructive surgery with free tissue transfer 4 Be able to manage safely acute complications of Head & Neck surgery 4 Be able to replace a tracheooesophageal valve in clinic.	Strongly recommended Pharyngosocpy, Laryngoscopy Tracheostomy Neck dissection (progression through training) Laser safety Desirable (Strongly recommended for those specialising in H&N) Tumour resections Pedicled and free flaps

Topic	Investigation and management of the neck lump	Areas in which simulation should be used to develop relevant skills
Category	Head and Neck	
Sub-category:	None	
Objective	*To understand the aetiology, presenting symptoms & signs and management of patients presenting with a neck lump. This module gives some indication of the breadth and depth of required knowledge and surgical skills. The list should not be considered to be fully inclusive or exhaustive.*	
Knowledge	4 Understand the anatomy of the neck, and distribution of cervical lymph nodes. Classify the lymphatic levels of the neck according to the MSK(Memorial Sloane Kettering) classification. 4 Know the differential diagnosis of a neck lump. 4 Demonstrate knowledge of the aetiology & pathology of cervical lymphadenopathy including manifestations of systemic disease. 4 Understand the presentation, aetiology, investigations and pattern of metastatic spread of upper aerodigestive tract, salivary gland, cutaneous and thyroid malignancies. 4 Understand the appropriate investigation of neck masses and specifically the management of the unknown primary malignant lump. 4 Demonstrate knowledge of the presentation, aetiology, investigations and principles of management of lymphoma and leukaemia as it applies to the head and neck. 4 Understand the principles of medical and surgical management of patients with a neck lump 4 Demonstrate knowledge of the potential complications of management.	
Clinical Skills	4 Be able to take a relevant detailed history, perform appropriate examination and interpret clinical signs correctly.. 4 Demonstrate a rational approach to investigation of a neck lump	
Technical Skills and Procedures	4 Perform FNAC 4 Out patient and in patient endoscopy of the Upper aerodigestive tract 4 Perform excision biopsy of cervical lymph nodes and deal with the complications. 2 Radical Neck dissection 4 Selective neck dissection 1 Modified radical neck dissection 4 Branchial cyst excision and management of complications	Strongly recommended Pharyngoscopy Laryngoscopy Neck dissection (progression through training)

Topic	Neoplastic salivary gland disease	Areas in which simulation should be used to develop relevant skills
Category	Head and Neck	
Sub-category:	None	
Objective	*To understand the aetiology, presenting signs, symptoms and management of neoplastic salivary gland disease. This module gives some indication of the breadth and depth of required*	

	knowledge and surgical skills. The list should not be considered to be fully inclusive or exhaustive.	
Knowledge	4 Know the anatomy & physiology of the major & minor salivary glands & their relations. 4 Know the anatomy of the neck. 4 Know the anatomy of the oral cavity. 4 Know the pathology of salivary gland tumours. 4 Understand the classification of salivary gland tumours. 4 Know the presenting symptoms & signs of salivary gland tumours. 4 Understand the modalities (cytological & imaging) available for investigating salivary gland tumours 4 Know the differential diagnosis of salivary gland tumours and inflammatory swellings. 4 Understand the principles of management of salivary gland tumours. 4 Understand the potential consequences of salivary gland surgery and the complications of surgery 4 Understand the principles of management (surgical & non surgical) of malignant salivary gland disease 4 Understand the role of reconstructive and palliative surgery in the management of malignant salivary gland disease	
Clinical Skills	4 Be able to elicit an appropriate clinical history and interpret physical signs correctly 4 Demonstrate the ability to detect 'red flag' symptoms & signs of malignant disease. 4 Order the most appropriate imaging modality 4 Manage patients with malignant disease in a multidisciplinary team	
Technical Skills and Procedures	4 FNAC 4 Set up and use facial nerve monitor 4 Be able to perform a submandibular gland excision 4 Biopsy of a minor salivary gland tumour 4 Be able to perform a superficial parotidectomy 1 Total parotidectomy 2 Radical Neck dissection 4 Selective neck dissection 1 Modified radical neck dissection 1 Facial nerve grafting 1 facio-hypoglossal anastomosis	Desirable Submandibular gland excision Parotidectomy Desirabe (for those specialising in H&N) Neural anastamosis

Topic	**Non neoplastic salivary gland disease**
Category	Head and Neck
Sub-category:	None
Objective	*To understand the aetiology, presenting signs, symptoms and management of benign salivary gland disease. This module gives some indication of the breadth and depth of required. Knowledge and surgical skills. The list should not be considered to be fully inclusive or exhaustive.*
Knowledge	4 Know the anatomy and physiology of the major and minor salivary glands. 4 Understand the pathological processes, both local & systemic, that can affect the salivary glands. 4 Understand the classification of benign salivary gland disease including infection, inflammatory diseases, drugs and benign tumours 4 Know the various imaging modalities for investigation of benign salivary gland disease. 4 Understand the principles of patient management.

	4 Know the medical and surgical management of salivary gland disease, and the complications of surgery
Clinical Skills	4 Be able to elicit an appropriate clinical history and interpret clinical signs correctly. 4 Be able to order the appropriate special investigations and correctly interpret images including plain radiographs, computerized tomography and Magnetic resonance imaging. 4 Be able to counsel patients on the particular risks of salivary gland surgery.
Technical Skills and Procedures	4 Be able to excise a submandibular calculus 4 Be able to perform submandibular gland excision 1 Excision of ranula 4 Minor salivary gland biopsy 1 Parotidectomy for inflammatory disease

Topic	**Thyroid and parathyroid disease**	**Areas in which simulation should be used to develop relevant skills**
Category	Head and Neck	
Sub-category:	None	
Objective	*To understand the aetiology, presenting signs, symptoms and management of Thyroid and Parathyroid disorders. This module gives some indication of the breadth and depth of required knowledge and surgical skills. The list should not be considered to be fully inclusive or exhaustive.*	
Knowledge	4 Understand the embryology, physiology, biochemistry and anatomy of the thyroid gland. 4 Understand the embryology, physiology, biochemistry and anatomy of the parathyroid glands. 4 Understand the pathophysiology of endocrine dysfunction of the thyroid and parathyroid glands. 4 Understand the classification of thyroid neoplasia. 4 Understand the principles of investigation of a patient with endocrine dysfunction of the thyroid gland. 4 Understand the principles of investigation of a patient with endocrine dysfunction of the parathyroid glands. 4 Understand the principles of investigation of a patient with a parathyroid or thyroid mass 4 Understand principles of medical and surgical management of endocrine dysfunction of the thyroid and parathyroid glands, including the peri operative management of thyrotoxicosis. 4 Understand principles of medical and surgical management of neoplasia of the thyroid and parathyroid glands, including post operative complications. 4 Understand the need to work as part of an MDT in management of malignant thyroid disease. 4 be aware of national and local guidelines for the management of thyroid malignancy.	
Clinical Skills	4 Be able to elicit an appropriate clinical history from a patient with thyroid or parathyroid gland disease. 4 Be able to demonstrate relevant clinical signs in a patient with thyroid or parathyroid gland disease	
Technical Skills and Procedures	3 Thyroidectomy. 4 Be able to obtain appropriate samples for fine needle cytology or core biopsy from a patient with a thyroid or parathyroid mass	Desirable Thyroidectomy

	1 Be able to perform surgical exploration of the neck for parathyroid disease. 1 Be able to explore the superior mediastinum for thyroid and parathyroid neoplasia.	

Topic	Oral pathology	Areas in which simulation should be used to develop relevant skills
Category	Head and Neck	
Sub-category:	None	
Objective	*To understand the aetiology, presenting signs, symptoms and management of patients presenting with disorders of the oral cavity. This module gives some indication of the breadth and depth of required knowledge and surgical skills. The list should not be considered to be fully inclusive or exhaustive.*	
Knowledge	4 Understand the anatomy of the oral cavity 4 Know the normal flora of the oral cavity and how oral disease can alter oral flora 4 Understand the physiology of the oral phases of swallowing 4 Know the physiology of salivary function 4 Understand the consequences of oral disease on swallowing 4 Understand the consequences of salivary gland dysfunction on oral health 4 Know the causes of drooling and the principles of management thereof. 3 Understand the aetiology, pathophysiology, presenting symptoms and signs of dental caries 4 Know the pathophysiology, presenting symptoms & signs and management of mucosal oral disease including infection, inflammation, soft tissue and bony conditions 4 Understand the aetiology of oral cancer 4 Know the presenting symptoms and signs of oral cancer 4 Understand the principles of management of oral cancer 4 Understand the long and short term effects of chemotherapy and radiotherapy on oral health 4 Understand the appropriate modalities for imaging oral disease	
Clinical Skills	4 Be able to elicit an appropriate clinical history and interpret physical signs correctly 4 Demonstrate the ability to detect 'red flag' symptoms & signs of malignant disease. 4 Order the most appropriate imaging modality 3 Be able to interpret plain images of the oral cavity and associated bony structures 3 Manage patients with malignant disease in a multidisciplinary team 4 be able to diagnose dental related sepsis presenting in the neck or paranasal sinuses	
Technical Skills and Procedures	4 Perform a biopsy of an oral lesion 4 Remove and treat benign oral lesions 1 Partial glossectomy 1 Submandibular duct transposition for drooling 1 Dental extractions 1 Closure of oroantral fistulae 1 Mandibulotomy and excision of floor of mouth lesion	Desirable (for those specialising in H&N) Excision oral lesions Mandibulotomy and reconstruction

Topic	Sleep related breathing disorders
Category	Head and Neck
Sub-category:	None
Objective	*To understand the aetiology, presenting signs, symptoms and management of sleep related breathing disorders . This module gives some indication of the breadth and depth of required knowledge and surgical skills. The list should not be considered to be fully inclusive or exhaustive.*
Knowledge	4 Know the aetiology, presenting signs and symptoms of sleep related breathing disorders, including snoring, obstructive sleep apnoea / hypopnoea and central sleep apnoea in adults. 4 Know of the pathophysiological sequelae of sleep related breathing disorders including snoring, obstructive sleep apnoea / hypopnoea and central sleep apnoea 4 Understand the principles of assessment and investigation of sleep related breathing disorders, including sleep nasendoscopy and sleep studies / polysomnography. 4 Understand the principles of management of sleep related breathing disorders including CPAP, mandibular advancement prostheses, nasal and pharyngeal surgery, tracheostomy and drug therapy. 4 Understand the principles of midface and mandibular advancement surgery.
Clinical Skills	4 Be able to elicit an appropriate clinical history and identify relevant clinical signs in a patient with a sleep related breathing disorder. 4 Be able to make a correct diagnosis from the results of assessment and investigation of a patient with a sleep related breathing disorder, and synthesise an appropriate plan for their clinical management.
Technical Skills and Procedures	4 Be able to perform palatal surgery for snoring/OSAS 4 Be able to perform surgery to correct nasal airway obstruction. 4 Be able to perform sleep nasendoscopy or out patient flexible fibreoptic nasendoscopy 4 Tracheostomy

Topic	Voice disorders	Areas in which simulation should be used to develop relevant skills
Category	Head and Neck	
Sub-category:	None	
Objective	*To understand the aetiology, presenting signs, symptoms and management of common voice disorders. This module gives some indication of the breadth and depth of required knowledge and surgical skills. The list should not be considered to be fully inclusive or exhaustive.*	
Knowledge	2 Understand the physics of sound 4 Understand the embryology of the larynx and congenital malformations of the larynx 4 Understand the maturational / developmental changes of the larynx 4 Understand the anatomy, neuroanatomy and movements of the larynx 4 Understand the physiology of phonation and articulation 3 Understand the classification of dysphonias and the various hypotheses relating to the aetiology of dysphonias. 2 Understand the classification of disorders of articulation 4 Understand principles of videostroboscopic examination of the larynx, laryngography and analysis of pitch and periodicity of speech. (including photodocumentation) 4 Understand the principles of the medical and surgical	

	management of patients with dysphonia (including instrumentation). 3 Know the principles of Speech and Language Therapy 4 Know the classification & aetiology of inflammatory and neoplastic laryngeal disorders	
Clinical Skills	4 Elicit an appropriate clinical history from and demonstrate clinical signs in a dysphonic patient 3 Communication skills with Speech & Language therapists and ability to work in a multidisciplinary team.	
Technical Skills and Procedures	4 Laryngeal examination with mirrors and flexible fibreoptic endoscope in an outpatient setting 4 Microlaryngosopy 2 Videostroboscopic laryngoscopy in an outpatient setting 3 Microscopic / endoscopic laryngeal surgery and intralaryngeal injection techniques12 Laryngeal framework surgery 3 Vocal cord injection 1 Laryngeal electromyography	Strongly recommended Microlaryngoscopy Desirable Vocal cord injection (Desirable for those specialising in Laryngology) Laryngeal framework surgery

Topic	**Tracheostomy Care Module (Adult)**
Category	Head & Neck
Sub-category:	Airway management
Objective	*To be able to manage patients with short and long term tracheostomies in an emergency, elective & community setting and provide an expert resource to other health professionals in the management of tracheostomies*
Knowledge	4 Anatomy of larynx, trachea and neck 4 Physiology of respiration 4 Indications for tracheostomy 4 In depth knowledge of different types of tracheostomy tubes and relative indications for use 4 Role of health professionals in the multidisciplinary management of patients with tracheostomy 4 Local and national guidelines for tracheostomy management 4 Indications for surgical & percutaneous tracheostomy 4 Principles of weaning
Clinical Skills	4 Tracheostomy care; suction, inner tube care, humidification 4 Appropriate selection of correct tube to suit patient 4 Supervision of weaning and extubation 4 Troubleshooting in a variety of situations 4 Management of persistent trachea cutaneous fistula 4 Management of patients with failed extubation 4 Multi disciplinary management of patients with long term tracheostomy tubes
Technical Skills and Procedures	4 Flexible nasendoscopy 4 Management of blocked & displaced tube 4 Tracheostomy change 3 Repair of persistent tracheo cutaneous fistula

OTOLOGY

Topic	**Non-infective, acquired lesions of the pinna and external ear canal**
Category	Otology

Sub-category:	Non infective conditions of the external ear
Objective	*To understand the aetiology, pathology, presentation and management of non-infective conditions of the external ear. This module gives some idea of the breadth and depth of required knowledge and surgical skills. This list should not be considered to be fully inclusive or exhaustive*
Knowledge	4 Anatomy, physiology and pathology of the external ear and relationship of disease to the temporal bone. 4systemic conditions affecting external ear 4 dermatological conditions of the external ear 3 pharmacology of medications used in treatment 4 aetiology, pathology, presentation and management of benign tumours of the pinna and external ear canal 4 aetiology, pathology, presentation and management of malignant tumours of the pinna and external ear canal 3 aetiology of acquired atresia of the external auditory meatus 3 pathogenesis of effects of ionizing radiation of the ear and temporal bone 4 aetiology, pathology, presentation and management of osteoma / exostosis 4 management of foreign bodies 4 understand the implications and management of trauma to the pinna 4 Management including medical and surgical options as appropriate
Clinical Skills	HISTORY AND EXAMINATION 4 obtain appropriate history 4 clinical examination 4 Otoscopy 4 microscopy DATA INTERPRETATION 4 interpretation of audiological investigations 3 awareness and interpretation of radiological investigations
Technical Skills and Procedures	4 Aural toilet including microsuction and application of dressings 4 Biopsy of lesion of external ear 3 Oncological resection of tumours of the pinna 1 Reconstructive surgery of the pinna 2 Meatoplasty 1 Removal of osteoma / exostosis 4 Otomicroscopy and removal of FB's 4 Drainage of haematoma of pinna 4 Suturing of pinna

Topic	**Infective conditions of the pinna and external ear canal**
Category	Otology
Sub-category:	Infective conditions of the external ear and pinna including otitis externa, furunculosis, otomycosis, viral infections, chondritis & cellulitis
Objective	*To understand the aetiology, pathology, presentation and management of infective conditions of the external ear. This module gives some idea of the breadth and depth of required knowledge and surgical skills. This list should not be considered to be fully inclusive or exhaustive*
Knowledge	4 Anatomy, physiology and pathology of the external ear and relationship of disease to the temporal bone. 4 The pathogenesis of infective disorders of the external ear and pinna 4 Necrotising otitis externa 4 Microbiology of external ear and conditions affecting the pinna 4 Knowledge of antimicrobial and antiviral agents and relevant pharmacology of medications

	used in treatment. 4 Differential diagnosis of infective/inflammatory conditions 4 Management including medical and surgical options as appropriate
Clinical Skills	HISTORY AND EXAMINATION 4 obtain appropriate history 4 clinical examination 4 Otoscopy 4 microscopy DATA INTERPRETATION 3 Awareness and interpretation of radiological investigations 4 Awareness and interpretation of microbiological investigations
Technical Skills and Procedures	4 Microscopy 4 suction clearance 4 biopsy of lesion of external ear canal 4 Drainage of abscess

Topic	**Trauma**	**Areas in which simulation should be used to develop relevant skills**
Category	Otology	
Sub-category:	Trauma	
Objective	*To understand the aetiology, presenting signs, symptoms and management of trauma of the external, middle and inner ear including the temporal bone. This module gives some indication of the breadth and depth of required knowledge and surgical skills. This list should not be considered to be fully inclusive or exhaustive*	
Knowledge	4 Anatomy, physiology and pathology of the ear and auditory pathways. 4 The effects of trauma on the pinna, ear canal, tympanic membrane, middle ear, otic capsule and temporal bone. 3 The effects and assessment of poly-trauma and neurological injury. 4 The effects of barotrauma 4 The surgical and non-surgical management of trauma of the external, middle and inner ear. 4 Glasgow Coma Scale 4 Grading of facial nerve function 2 Neurophysiological assessment of facial nerve	
Clinical Skills	HISTORY AND EXAMINATION 4 obtain appropriate history 4 clinical examination including neurological assessment 4 Otoscopy 4 microscopy 4 Audiological and vestibular assessment DATA INTERPRETATION 4 objective and subjective audiological and vestibular tests 3 Radiological imaging of the temporal bone, head and neck 3 Laboratory investigations for suspected CSF leaks PATIENT MANAGEMENT	

	4 Be able to advise the patient of the treatment options, discuss risks and potential benefits, potential complications 4 To work where appropriate in a multidisciplinary team & liaise with other professional and organisations 4 The importance of teamwork in managing critically ill patients	
Technical Skills and Procedures	4 Microscopy 4 Suction clearance of ear 2 Meatoplasty 4 Drainage of haematoma of pinna 4 Suturing of pinna 3 Exploratory tympanotomy 4 Myringoplasty 1 Ossiculoplasty 1 Facial nerve decompression / anastomosis 1 Repair of perilymph leak	Strongly recommended Temporal bone dissection (annual, progression through training) Strongly recommended for those specialising in Otology; Advanced temporal bone dissection

Topic	**Acute otitis media and sequelae**	**Areas in which simulation should be used to develop relevant skills**
Category	Otology	
Sub-category:	Middle ear	
Objective	*To understand the aetiology, presenting signs, symptoms and management of acute infection of the middle ear. This module gives some indication of the breadth and depth of required knowledge and surgical skills. This list should not be considered to be fully inclusive or exhaustive*	
Knowledge	4 Anatomy, physiology and pathology of the ear and temporal bone 4 The microbiology related to acute ear infections. 4 Complications of acute otitis media including mastoiditis, lateral sinus thrombosis, meningitis and intracranial abscess 4 Indications for laboratory and radiological investigations 4 Differential diagnosis of acute otitis media and complications. 4 Medical and surgical management options 4 Relevant pharmacology of medications used in medical treatment	
Clinical Skills	HISTORY AND EXAMINATION 4 obtain appropriate history 4 clinical examination including neurological assessment 4 Otoscopy 4 microscopy 4 Audiological assessment DATA INTERPRETATION 3 Interpretation of radiological investigations PATIENT MANAGEMENT 4 To work where appropriate in a multidisciplinary team & liaise with other professional and organisations 4 The importance of teamwork in managing critically ill patients	
Technical Skills and Procedures	4 microsuction 4 myringotomy and grommet insertion 4 Cortical mastoidectomy and access mastoidectomy	Strongly recommended Temporal bone dissection (annual, progression through training)

		Strongly recommended for those specialising in Otology; Advanced temporal bone dissection

Topic	**Chronic suppurative otitis media and sequelae**	**Areas in which simulation should be used to develop relevant skills**
Category	Otology	
Sub-category:	Middle ear	
Objective	*To understand the aetiology, presenting signs, symptoms and management of chronic infection/inflammation of the middle ear. This module gives some indication of the breadth and depth of required knowledge and surgical skills. This list should not be considered to be fully inclusive or exhaustive*	
Knowledge	4 Anatomy, physiology and pathology of the ear and temporal bone 4 Definition and classification of chronic middle ear disease, including cholesteatoma, retraction pockets, perforations, otitis media with effusion and myringitis. 4 Aetiology and pathophysiology of chronic middle ear disease 4 The microbiology related to chronic middle ear disease 4 Complications of chronic middle ear disease (including intracranial sepsis) 4 Principles and practice of audiology including pure tone audiometry, tympanometry 4 Principles of specialist audiological investigations including speech audiometry, otoacoustic emissions and evoked response audiometry. 4 Indications for radiological investigations 4 Pharmacology of medications used in medical treatment 4 Medical and surgical management options	
Clinical Skills	HISTORY AND EXAMINATION 4 obtain appropriate history 4 clinical examination including neurological assessment 4 Otoscopy 4 microscopy 4 Audiological assessment DATA INTERPRETATION 4 Interpretation of audiological investigations 3 Interpretation of radiological investigations	
Technical Skills and Procedures	4 microsuction 4 myringotomy and grommet insertion 4 T tube insertion 4 Grommet removal 4 Aural polypectomy 4 Myringoplasty 4 Cortical mastoidectomy and access mastoidectomy 3 Modified radical mastoidectomy 1 Combined approach tympanoplasty 1 Ossiculoplasty	Strongly recommended Temporal bone dissection (annual, progression through training) Strongly recommended for those specialising in Otology; Advanced temporal bone

		dissection

Topic	Adult hearing loss	Areas in which simulation should be used to develop relevant skills
Category	Otology	
Sub-category:	Deafness in adults	
Objective	*To understand the aetiology, presenting signs, symptoms and management of adults who present with conductive, mixed, progressive or sudden onset of sensorineural deafness. This module gives some indication of the breadth and depth of required knowledge, clinical and surgical skills. This list should not be considered to be fully inclusive or exhaustive*	
Knowledge	4 Embryology of the ear 4 Anatomy, physiology and pathology of the ear and auditory pathways. 4 Principles of acoustics and measurement of sound. 4 Principles and practice of audiology including pure tone audiometry, speech audiometry and electrophysiological tests and other objective tests of hearing including oto-acoustic emissions 4 Indications for radiological investigation of hearing loss 3 The genetics of otological diseases 4 Differential diagnosis, aetiology and management of conductive hearing loss including external/middle ear disorders and otosclerosis. 4 Differential diagnosis, aetiology and management of sensorineural hearing loss including noise induced hearing loss, presbyacusis, menieres disease autoimmune diseases and retro-cochlear pathology. 4 Aetiology, investigation and management of acute sensorineural hearing loss 3 Central auditory processing disorders, auditory neuropathy, obscure auditory dysfunction 3 Auditory rehabilitation including the use of hearing aids and other assistive devices. 4 Social and psychological issues of deafness 3 Principles of non-auditory communication 4 Principles of surgical reconstruction. 4 Management of severe/ profound hearing loss. 3 Principles of and indications for cochlear implants, middle ear implants and bone anchored hearing aids. 4 Principles of preventative audiology and hearing conservation	
Clinical Skills	HISTORY AND EXAMINATION 4 obtain appropriate history 4 clinical examination 4 Otoscopy 4 microscopy 4 Audiological assessment DATA INTERPRETATION 4 Interpretation of audiological investigations 3 Interpretation of radiological investigations 4 Interpretation of laboratory investigations PATIENT MANAGEMENT	

	4 Demonstrate communication skills and empathy 4 Be able to advise the patient of the treatment options, discuss risks and potential benefits, potential complications 4 To work where appropriate in a multidisciplinary team & liaise with other professional and organisations 4 Principles of a holistic approach to the management of hearing loss 2 genetic counselling	
Technical Skills and Procedures	3 Perform pure tone audiometry, tympanometry 4 Microscopy 4 Microscution 4 Myringotomy + grommet insertion 4 Exploratory tympanotomy 4 Myringoplasty 1 Ossiculoplasty 1 Stapedotomy / stapedectomy 1 Cochlear implantation 1 Middle ear implantation 2 Insertion of Bone anchored hearing aid abutment 1 closure of perilymph leak 1 The surgical approaches to the CP angle	Strongly recommended Temporal bone dissection (annual, progression through training) Strongly recommended for those specialising in Otology; Advanced temporal bone dissection

Topic	**Tinnitus**
Category	Otology
Sub-category:	Tinnitus
Objective	*To understand the aetiology, presenting signs, symptoms and management of tinnitus. This module gives some indication of the breadth and depth of required knowledge, clinical and surgical skills. This list should not be considered to be fully inclusive or exhaustive*
Knowledge	4 Anatomy, physiology and pathology of the ear and auditory pathways. 2 Psycho-acoustical tests, pitch and loudness match, minimum masking level, residual inhibition 3 The various hypotheses relating to the aetiology of tinnitus both objective and subjective 4 Knowledge of objective causes of tinnitus eg palatal myoclonus, tumours, arteriovenous malformations 4 The psychological effects of tinnitus 3 Principles of tinnitus retraining and rehabilitation and the principles of support and counselling 4 Principles of hearing aid(s) and masking
Clinical Skills	HISTORY AND EXAMINATION 4 obtain appropriate history 4 clinical examination 4 Otoscopy DATA INTERPRETATION 3 Interpretation of radiology PATIENT MANAGEMENT 4 Demonstrate communication skills and empathy. 4 Be able to advise the patient of the treatment options, discuss risks and potential benefits. 4 To liaise with other organisations and professionals including audiologists, hearing therapists and clinical psychologists
Technical Skills and Procedures	4 Perform pure tone audiometry, tympanometry

Topic	Facial palsy	Areas in which simulation should be used to develop relevant skills
Category	Otology	
Sub-category:	Facial Paralysis	
Objective	*To understand the aetiology, presenting signs, symptoms and management of facial nerve palsy. This module gives some indication of the breadth and depth of required knowledge, clinical and surgical skills. This list should not be considered to be fully inclusive or exhaustive*	
Knowledge	4 The anatomy and physiology of facial nerve and related structures 4 The aetiology, classification and neuro-physiology of facial paralysis 4 Indications for investigations including radiology, electrophysiology and laboratory tests. 4 Facial nerve grading 4 Management of acute and chronic facial nerve palsy 4 Management and prevention of ocular complications 4 Principles of peri-operative facial nerve monitoring 2 Principles of rehabilitation for facial paralysis	
Clinical Skills	HISTORY AND EXAMINATION 4 obtain appropriate history 4 clinical examination including assessment of facial nerve function 4 Otoscopy DATA INTERPRETATION 2 neuro-physiological tests of inner ear function and facial nerve 3 Interpretation of radiological tests 4 Interpretation of laboratory investigations PATIENT MANAGEMENT 4 Demonstrate communication skills and empathy 2 Appreciate the psychological effects of facial disfigurement 4 Be able to advise the patient of the treatment options, and liaise with other health care professionals.	
Technical Skills and Procedures	4 Setup and use of intra-operative facial nerve monitor 4 Cortical mastoidectomy 3 Modified radical mastoidectomy 1 Full decompression of facial nerve 1 Facial nerve anastomosis	Strongly recommended Temporal bone dissection (annual, progression through training) Strongly recommended for those specialising in Otology; Advanced temporal bone dissection

Topic	Disorders of balance	Areas in which simulation should be used to develop relevant skills
Category	Otology	
Sub-		

category:		
Objective	*To understand the aetiology, presenting signs, symptoms and management of patients with disordered balance. This module gives some indication of the breadth and depth of required knowledge, clinical and surgical skills. The list should not be considered to be fully inclusive or exhaustive.*	
Knowledge	4 Anatomy and physiology related to maintenance of balance including the vestibular system, visual, locomotor, central nervous and cardiovascular systems 4 The pathology and various hypotheses relating to the aetiology and management of sudden vestibular failure, Ménière's disease, benign paroxysmal vertigo, vestibular schwannoma, pharmacological and metabolic side effects 4 The handicaps related to age related sensory and proprioceptive degeneration 4 Psychological aspects of dizziness 4 Appropriate investigations for balance disorders including audiological, radiological, laboratory and vestibular tests. 4 The law as it relates to disorders of balance 4 The principles of vestibular rehabilitation 4 The principles of particle repositioning manoeuvres 4 Medical, non-surgical and surgical treatment options	
Clinical Skills	HISTORY AND EXAMINATION 4 obtain appropriate history 4 clinical examination including neurological assessment 4 Otoscopy DATA INTERPRETATION 4 Interpretation of audiological tests 4 Interpretation of vestibular tests 3 Interpretation of radiological and laboratory tests PATIENT MANAGEMENT 4 Demonstrate communication skills and empathy 4 Be able to advise the patient of the treatment options, discuss risks and potential benefits, potential complications 4 To work where appropriate in a multidisciplinary team & liaise with other professional and organisations	
Technical Skills and Procedures	4 Perform particle re-positioning manoeuvres 4 Myringotomy and grommet insertion 1 Inytratympanic instillation of drugs 4 Cortical mastoidectomy 1 Decompression of endolymphatic sac 1 Closure of perilymph fistula 1 Labyrinthectomy	Strongly recommended Temporal bone dissection (annual, progression through training)

Topic	**Lateral skull base tumours**	**Areas in which simulation should be used to develop relevant skills**
Category	Otology	
Sub-category:	Head and neck neoplasia	
Objective	*To understand the aetiology, presenting signs, symptoms and*	

	management of lateral skull base neoplasia. This module gives some indication of the breadth and depth of required knowledge, clinical and surgical skills. The list should not be considered to be fully inclusive or exhaustive.	
Knowledge	4 Anatomy of the skull base and neck 4 Anatomy of the inner, middle and external ear 4 Anatomy of the cranial nerves 4 Pathology and pathogenesis of skull base tumours 4The relevant clinical neurological, vascular, radiological, biological, immunological and serological investigations 3The genetics of skull base tumours incl vestibular schwannomas and genetic counselling. 4 The clinical presentation of skull base tumours 4The surgical and non-surgical management options. 3 The surgical approaches to the CP angle and skull base	
Clinical Skills	HISTORY AND EXAMINATION 4 obtain appropriate history 4 clinical examination including neurological assessment 4 Otoscopy DATA INTERPRETATION 4 Interpretation of audiological tests 4 Interpretation of vestibular tests 3 Interpretation of radiological and laboratory tests PATIENT MANAGEMENT 4 Demonstrate communication skills and empathy 3 Be able to advise the patient of the treatment options, discuss risks and potential benefits, potential complications 4 principles of patient management including multidisciplinary team working	
Technical Skills and Procedures	1 Surgical approaches to the lateral skull base 4 Tympanotomy 1 Resection of glomus tympanicum 1 Management of complications of lateral skull base surgery including CSF leak, lateral sigmoid thrombosis and facial palsy.	Strongly recommended Temporal bone dissection (annual, progression through training) Strongly recommended for those specialising in Otology; Advanced temporal bone dissection

RHINOLOGY

Topic	**Epistaxis**	**Areas in which simulation should be used to develop relevant skills**
Category	Rhinology	
Sub-category:	None	
Objective	*To understand the aetiology, presenting symptoms and signs and management of epistaxis. There should be detailed understanding of the presenting features, complications, diagnosis, and management of these problems. This list should not be considered to be fully inclusive or exhaustive*	

Knowledge	4 Know the anatomy of the nose 4 Understanding of local and systemic aetiologies of epistaxes 4 Detailed knowledge of the anatomy and physiology of nasal vasculature 4 Detailed understanding of the presenting symptoms and signs of epistaxes 4 Detailed knowledge of management including first aid measures, nasal cautery, packing and operative techniques in the management of epistaxes 4 Know the complications of epistaxes and the management of them. 4 Understanding of the role of radiology and embolization in managing epistaxis	
Clinical Skills	4 Demonstrate expertise in taking an appropriate clinical history. 4 Ability to elicit physical signs both local and systemic if appropriate 4 Awareness of relevant haematological and imaging investigations. 4 Awareness of management principles in patient with epistaxis 4 Ability to resuscitate critically ill patient	
Technical Skills and Procedures	4 Diagnostic nasendoscopy 4 Packing of nose 4 Removal of nasal packing 4 Cautery of nasal septum 4 Ethmoid Artery ligation 4 Sphenopalatine artery ligation 1 Maxillary artery ligation	Strongly recommended Nasal endoscopy SPA Ligation

Topic	**Nasal trauma and deformity**	**Areas in which simulation should be used to develop relevant skills**
Category	Rhinology	
Sub-category:	None	
Objective	*To understand the presenting features, diagnosis, complications and management of nasal trauma and deformity. This module gives some idea of the breadth and depth of required knowledge and surgical skills. This list should not be considered to be fully inclusive or exhaustive.*	
Knowledge	4 Know the anatomy of the nose, paranasal sinuses and facial skeleton. 4 Understanding of the mechanisms of trauma responsible for nasal and facial injuries. 4 Understanding of objective assessment of airway eg rhinomanometry 4 Knowledge of the appropriate imaging techniques 4 Knowledge of the specific complications of nasal trauma 4 Knowledge of the management of nasal trauma 4 Knowledge of the management of nasal deformity 4 Glasgow Coma Scale	
Clinical Skills	4 Ability to take a relevant history and perform an appropriate clinical examination 4 Knowledge of the relevant special investigations and correct interpretation eg rhinomanometry 4 Ability to adequately resuscitate the critically ill patient	
Technical	4 Fracture nose reduction	Strongly recommended

Skills and Procedures	4 Insertion septal button 4 Packing of nose 4 Management of traumatically induced epistaxis (see epistaxis section) 4 Septoplasty 4 Septorhinoplasty 1 Surgical repair septal perforation	Nasal endoscopy SPA Ligation Septorhinoplasty

Topic	**Nose and sinus infections**	**Areas in which simulation should be used to develop relevant skills**
Category	Rhinology	
Sub-category:	None	
Objective	*To understand the aetiology, pathophysiology, and microbiology. There should be detailed understanding of the presenting features, complications, diagnosis, and management of these infections. This module gives some idea of the breadth and depth of required knowledge and surgical skills. This list should not be considered to be fully inclusive or exhaustive.*	
Knowledge	4 Detailed knowledge of anatomy and physiology of the nose and paranasal sinuses 4 Know the microbiology of acute and chronic rhinosinusitis 4 understanding of special investigations to inform the diagnosis 4 Understanding of the management of acute and chronic rhinosinusitis. 4 Knowledge of the indications for, techniques of, and complications of surgical management 4 Knowledge of the complications of sinusitis and their management.	
Clinical Skills	4 Demonstrate an ability to take an appropriate history and perform a nasal examination with a speculum and endoscope. 4 Awareness of the indications for and ability to interpret imaging including CT and MRI 4 Awareness of indications for other special investigations including microbiology, immunology etc	
Technical Skills and Procedures	4 preparation of the nose for endoscopic surgery 4 nasendoscopy 2 antral washout – direct vision 2 inferior meatal antrostomy – direct vision + endoscopic 4 middle meatal antrostomy – endoscopic 4 nasal polypectomy – endoscopic including microdebrider 4 middle turbinate partial excision 4 uncinectomy – endoscopic 4 Anterior ethmoidectomy - endoscopic 2 Caldwell-Luc – direct vision 1 External ethmoidectomy 2 posterior ethmoidectomy – endoscopic 1 sphenoidotomy – endoscopic 1 opening the frontal recess – endoscopic 1 balloon sinuplasty 2 Surgical management of intra orbital bleeding	Strongly recommended Nasal endoscopy FESS (progression through training) Strongly recommended (For those specialising in Rhinology) Advanced Endoscopic dissection

Topic	Nose and sinus inflamation including allergy	Areas in which simulation should be used to develop relevant skills
Category	Rhinology	
Sub-category:	None	
Objective	*To understand the aetiology and pathophysiology of nasal & paranasal sinus inflammation. There should be detailed understanding of the presenting features, complications, diagnosis, and management of these infections. This module gives some idea of the breadth and depth of required knowledge and surgical skills. This list should not be considered to be fully inclusive or exhaustive.*	
Knowledge	4 Detailed knowledge of anatomy and physiology of the nose and paranasal sinuses 4 Understanding of the aetiologies underlying inflammation of the nose and sinuses. 3 Basic science of allergy 4 Know the role of allergy in the pathophysiology of inflammation of the nose and sinuses. 4 Understanding of the special investigations used in the assessment of nasal allergy. 4 Understanding of the imaging modalities to assess the nose and sinuses 4 Knowledge of the role of management of allergy, and drug treatment in nasal and sinus inflammation. 4 Knowledge of the indications for, techniques of and complications of surgical management 4 Knowledge of systemic conditions that can cause sinonasal inflammation 3 Understanding of scientific basis and methodology of desensitisation	
Clinical Skills	4 Ability to take an appropriate history and perform endoscopic examination of the nose and sinuses. 4 Ability to interpret the result of allergy testing including skin prick testing 4 Know which haematological investigations & radiological imaging are appropriate.	
Technical Skills and Procedures	4 preparation of the nose for endoscopic surgery 4 nasendoscopy 4 antral washout – direct vision 2 inferior meatal antrostomy – direct vision + endoscopic 2 middle meatal antrostomy – endoscopic 4 nasal polypectomy – endoscopic including microdebrider 4 turbinate surgery 4 uncinectomy – endoscopic 4 Anterior ethmoidectomy - endoscopic 2 Caldwell-Luc – direct vision 1 External ethmoidectomy 2 posterior ethmoidectomy – endoscopic 1 sphenoidotomy – endoscopic 1 opening the frontal recess – endoscopic 1 balloon sinuplasty 2 Surgical management of intra orbital bleeding	Strongly recommended Nasal endoscopy FESS (progression through training) Strongly recommended (For those specialising in Rhinology) Advanced endoscopic dissection

Topic	Congenital abnormalities
Category	Rhinology
Sub-category:	None
Objective	*To understand the aetiology, clinical features and management of congenital nasal abnormalities. To understand how these may be associated with other syndromes. This module gives some idea of the breadth and depth of required knowledge and surgical skills. This list should not be considered to be fully inclusive or exhaustive.*
Knowledge	4 Knowledge of the anatomy and physiology of the nose and paranasal sinuses. 4 Knowledge of the embryology of the nose and sinuses. 4 Knowledge of those conditions associated with congenital nasal abnormalities. 4 Understanding of how to manage congenital nasal abnormalities in both the elective & emergency settings. 4 understanding of imaging modalities appropriate to the investigation of congenital abnormality 2 Principles of genetics relating to congenital abnormalities
Clinical Skills	4 Ability to take an appropriate history from the parent and child and perform relevant general and specific rhinological examination. 4 Examination including endoscopic
Technical Skills and Procedures	4 Nasendoscopy 4 Examination under anaesthesia 2 Surgical management of choanal atresia

Topic	Facial pain
Category	Rhinology
Sub-category:	None
Objective	*To understand the aetiologies, characteristics and management of conditions presenting with facial pain, including those causes not arising in the upper aerodigestive tract*
Knowledge	4 Anatomy and physiology of the head and neck, including the face, TMJ, dentition and cervical spine 4 Understand the differential diagnosis of facial pain including organic and functional causes 4 Understand the various treatment modalities, both medical and surgical 3 Understanding of the pharmacology of drugs used in the management of facial pain 4 Awareness of the multidisciplinary approach to management
Clinical Skills	4 Ability to take a relevant history of facial pain 4 Ability to perform an appropriate ENT, neurological and locomotor examination 4 Understanding of the appropriate radiological investigations 4 Appropriate management to include onward referral for pharmacological, surgical and counselling therapies
Technical Skills and Procedures	4 Outpatient endoscopy of upper aerodigestive tract 4 Examination under anaesthesia 4 Biopsy - external nose 4 Biopsy – internal nose

Topic	Nasal polyps	**Areas in which simulation should be used to develop relevant skills**
Category	Rhinology	
Sub-category:	None	
Objective	*To understand the aetiologies, pathophysiology and clinical*	

	features of nasal polyps. There should be a detailed knowledge of the diagnostic features, management and complications. *This module gives some idea of the breadth and depth of required knowledge and surgical skills. This list should not be considered to be fully inclusive or exhaustive.*	
Knowledge	4 Anatomy of nose and paranasal sinuses 4 A detailed knowledge of current understanding of the aetiologies and conditions associated with nasal polyps. 4 Knowledge of the clinical features of nasal polyps 4 Understand the medical management options of nasal polyps 4 Understand the clinical significance of unilateral nasal polyps 4 Knowledge of the indications for, techniques of and complications of surgical management 4 Understanding of the management of intra orbital bleeding postop	
Clinical Skills	4 Ability to take an appropriate history and perform an examination including nasal endoscopy. 4 Awareness of and ability to interpret imaging	
Technical Skills and Procedures	4 preparation of the nose for endoscopic surgery 4 nasendoscopy 2 antral washout – direct vision 2 inferior meatal antrostomy – direct vision + endoscopic 4 middle meatal antrostomy – endoscopic 4 nasal polypectomy – endoscopic including microdebrider 4 turbinate surgery 4 uncinectomy – endoscopic 4 Anterior ethmoidectomy - endoscopic 2 Caldwell-Luc – direct vision 1 External ethmoidectomy 2 posterior ethmoidectomy – endoscopic 1 sphenoidotomy – endoscopic 1 opening the frontal recess – endoscopic 1 balloon sinuplasty 2 Surgical management of intra orbital bleeding	Strongly recommended Nasal endoscopy FESS (progression through training) Strongly recommended (For those specialising in Rhinology) Advanced endoscopic dissection)

Topic	**Granulomatous conditions**
Category	Rhinology
Sub-category:	None
Objective	*To understand the aetiology, classification, clinical features and management of granulomatous conditions of the nose. This module gives some idea of the breadth and depth of required knowledge and surgical skills. This list should not be considered to be fully inclusive or exhaustive.*
Knowledge	4 Understanding of the classification of nasal granulomatous conditions 4 Knowledge of the Pathophysiology of these conditions 4 Knowledge of the microbiology of specific nasal granulomatous conditions 4 Knowledge of the systemic and nasal features of granulomatous conditions eg sarcoidosis and Polyangitis with granulomatosis. 4 Understanding of methods of diagnosis. 4 Knowledge of management of these conditions. 4 Awareness of differential diagnosis
Clinical Skills	4 Ability to take a relevant history and perform an appropriate clinical examination 4 Knowledge of the relevant special investigations and correct interpretation of them.

Technical Skills and Procedures	4 diagnostic nasendoscopy 4 examination under anaesthesia 4 biopsy – external 4 biopsy – internal

Topic	**Sinonasal neoplasms including anterior skull base tumours**	**Areas in which simulation should be used to develop relevant skills**
Category	Sinonasal neoplasms	
Sub-category:	None	
Objective	*To understand the aetiology, clinical presentation and management of benign and malignant tumours of the nose and paranasal sinuses. This module gives some idea of the breadth and depth of required knowledge and surgical skills. This list should not be considered to be fully inclusive or exhaustive.*	
Knowledge	4Knowledge of the anatomy of the nose and paranasal sinuses. 3 Pituitary physiology 4 Knowledge of the distribution of cervical lymph nodes 4 Understanding of the pattern of spread of malignancy in the head and neck 4 Knowledge of the different histological types of neoplasm in the nose, paranasal sinuses & skull base. 4 Understanding of the principles of medical and surgical management of neoplasms of the nose and sinuses. 4 Knowledge of the complications of both the diseases and their management. 3 Understanding of the multidisciplinary approach to the management of sinonasal/ skull base tumours 3 Understanding of the multidisciplinary approach to the management of sinonasal/ skull base tumours including pituitary tumours	
Clinical Skills	4 Ability to take a relevant history, perform an appropriate examination and interpret clinical findings correctly 4 Demonstrate a rational approach to special investigations 4 Participation in a multi disciplinary team approach to management of sinonasal neoplasms	
Technical Skills and Procedures	4 Examination of nose under anaesthesia 4 Biopsy of nose - external 4 Biopsy of nose – internal 1 Anterior skull base approaches including endoscopic 2 Endoscopic medial maxillectomy 1 Lateral Rhinotomy 2 Endoscopic excision nasal and sinus tumours 1 Maxillectomy 1 midfacial degloving 1 Bicoronal flap approach 1 Endoscopic repair of anterior skull base csf leak	Strongly recommended Nasal endoscopy FESS (progression through training) Strongly recommended (For those specialising in Rhinology) Advanced endoscopic dissection

Topic	**Septorhinoplasty**	**Areas in which simulation should be used to develop relevant skills**
Category	Rhinology	

Sub-category:	Facial Plastics	
Objective	*To understand the presenting features, assessment, management and complications of nasal and septal deformity. This module gives some idea of the breadth and depth of required knowledge and surgical skills. This list should not be considered to be fully inclusive or exhaustive.*	
Knowledge	4 Understanding of the anatomy of the nose, paranasal sinuses and facial skeleton. 4 Understanding of the embryology of the nose 4 Understanding of the mechanisms of trauma responsible for nasal and facial injuries. 4 Understanding of methods of assessment of the facial skeleton 4 knowledge of surgical techniques including use of grafts 4 Knowledge of the specific complications of nasal surgery	
Clinical Skills	4 Ability to take a relevant history and perform an appropriate clinical examination 4 Ability to assess photographs and devise a surgical plan including onwards referral as appropriate	
Technical Skills and Procedures	4 Septoplasty 4 Septorhinoplasty including use of grafts 4 Appropriate dressing and packing of nose	Strongly recommended Septorhinoplasty

Topic	**Congenital abnormalities of the face**
Category	Rhinology
Sub-category:	Facial Plastics
Objective	*To understand the aetiology, clinical features and management of congenital facial abnormalities. To understand how these may be associated with other syndromes.* *This module gives some idea of the breadth and depth of required knowledge and surgical skills. This list should not be considered to be fully inclusive or exhaustive.*
Knowledge	4 Knowledge of the anatomy and physiology of the facial structures. 4 Knowledge of the embryology of the face including the nose, palate and neck. 4 Knowledge of those conditions associated with congenital facial abnormalities. 4 Understanding of how to manage congenital facial abnormalities in both the elective & emergency settings. 2 principles of genetics and counselling
Clinical Skills	4 Ability to take an appropriate history form the parent and child and perform relevant examinations. 4 Nasendoscopy if appropriate
Technical Skills and Procedures	4 Examination under anaesthesia 4 Excision facial skin lesion including reconstructive techniques 1 Septorhinoplasty in cleft patients

Topic	**Cosmetic Surgery**	**Areas in which simulation should be used to develop relevant skills**
Category	Rhinology	
Sub-category:	Facial Plastics	
Objective	*To understand the presentation and analysis of cosmetic deformity of the face. This involves a detailed understanding of the anatomy of the skin and deeper structures and knowledge of*	

	the different facial aesthetic units. This module gives some idea of the breadth and depth of required knowledge and surgical skills. This list should not be considered to be fully inclusive or exhaustive.	
Knowledge	4 Understanding of the anatomical areas and aesthetic units that make up the face. 4 Knowledge of relaxed skin tension lines 4 Understanding of the blood supply and innervation of the face. 4 Knowledge of the planes of dissection available. 4 Knowledge of the methods used to analyse facial features. 4 Knowledge of the various procedures used in cosmetic facial surgery. 4 Knowledge of the limitations and complications of cosmetic facial surgery	
Clinical Skills	4 Ability to take a relevant history and perform an appropriate clinical examination 4 Ability to assess facial deformity and devise a management plan	
Technical Skills and Procedures	4 Nasendoscopy 4 Resection of nasal lesion 2 Be able to reconstruct defects with local flaps 1 Be able to reconstruct defects using Distant flaps 4 Excision skin lesion 4 harvesting and use of split and full thickness skin grafts 1 Facelift 1 Tissue expansion techniques 1 Neuromuscular blockade	Strongly recommended Excision skin lesions Harvesting of grafts Local skin flaps Desirable (For Facial Plastics specialists) Blepharoplasty Dermal fillers Tissue expansion techniques

Topic	**Reconstruction**	**Areas in which simulation should be used to develop relevant skills**
Category	Rhinology	
Sub-category:	Facial Plastics	
Objective	*To understand the methods available for facial reconstruction including, skin, muscle, cartilage, bone and implants. This involves a detailed understanding of the anatomy of the skin and deeper structures and in particular the blood supply of the tissues involved. Knowledge of the basic types of skin grafts, local flaps, regional flaps and free flaps is necessary. This module gives some idea of the breadth and depth of required knowledge and surgical skills. This list should not be considered to be fully inclusive or exhaustive.*	
Knowledge	4 Understanding of the applied anatomy of the head and neck 4 Understanding of the blood supply and innervation of the head and neck and of local, regional and free grafts. 4 Knowledge of the different types of flap available and the indications for their use 4 Knowledge of the implants and prosthetic devices available.	
Clinical Skills	4 Ability to take a relevant history and perform an appropriate clinical examination 4 Ability to assess cosmetic and functional deficits and devise a management plan including onward referral as appropriate	
Technical	4 Resection of nasal lesion	Strongly recommended

Skills and Procedures	2 Reconstruction of nasal cosmetic units 2 Lip- wedge resection 4 Excision skin lesion 4 Suture skin 2 Reconstruction with axial and random pattern local flaps 4 Split and full thickness skin grafts 1 Tissue expansion techniques 1 Dermal fillers	Excision skin lesions Harvesting of grafts Local skin flaps Desirable (For Facial Plastics specialists) Blepharoplasty Dermal fillers Tissue expansion techniques

Topic	**Disorders of Olfaction**
Category	Rhinology
Sub-category:	Olfaction
Objective	*To understand the aetiology, clinical presentation and management of olfactory disorders. This module gives some idea of the breadth and depth of required knowledge and surgical skills. This list should not be considered to be fully inclusive or exhaustive.*
Knowledge	4 Know the anatomy of the olfactory nerve including intracranial connections. 4 Know the physiology of olfaction 4 Know the classification of olfactory dysfunction 4 Know the causes of olfactory dysfunction 4 Understand the scientific basis for the assessment of olfactory dysfunction 4 Know of the commonly used tests of olfaction 4 Know the anatomy and physiology of taste 4 Know the causes of taste dysfunction
Clinical Skills	4 Be competent at taking a comprehensive history and examination from a patient presenting with olfactory and/ or taste dysfunction. 4 Be competent at performing a formal assessment of olfaction using appropriate validated assessment techniques 4 Be competent at ordering and interpreting appropriate imaging to investigate olfactory dysfunction
Technical Skills and Procedures	4 Nasendoscopy 4 Examination of nose and postnasal space 4 Nasal biopsy

Skin Cancer

Topic	**Skin Cancer**	**Areas in which simulation should be used to develop relevant skills**
Category	Skin cancer	
Sub-category:		
Objective	*To understand the aetiology, clinical presentation and management of benign and malignant tumours of the skin. This module gives some idea of the breadth*	

	and depth of required knowledge and surgical skills. This list should not be considered to be fully inclusive or exhaustive.	
Knowledge	4 Know the anatomy and cellular composition of the skin. 4 Know the zones of the face and relaxed skin contour lines. 4 Know the physiology of skin. 4 Understand the principles of carcinogenesis 4 Know of the different types of skin cancer and their classification. 4 Know the presenting features and appearance of different types of skin cancer. 4 Know the causes and predisposing factors of skin cancer. 4 Know of the staging of different types of skin cancer. 4 Know of the treatment of different types of skin cancer. 4 Understand the rationale for the strategies to prevent skin cancer.	
Clinical Skills	4 Be able to take a comprehensive history and examination from a patient presenting with symptoms of skin cancer 4 Manage all patients within a multidisciplinary setting when indicated. 4 Be able to recommend correct treatment options to patients 4 Order appropriate imaging.	
Technical Skills and Procedures	4 Skin biopsy 4 Excision of skin cancer and primary closure 2 Excision of skin cancer and reconstruction with local axial or random pattern flaps or grafts 4 Harvesting and use of split and full thickness skin grafts 1 Be able to reconstruct defects using Distant flaps	Strongly recommended Excision skin lesions Harvesting of grafts Local skin flaps Desirable Distant, pedicled and free flaps

Topic	**Surgical Management of Epiphora**	**Areas in which simulation should be used to develop relevant skills**
Category	Surgical Management of Epiphora	
Sub-category:		
Objective	*To understand the aetiology and pathophysiology of epiphora. There should be detailed understanding of the presenting features, diagnosis, and management of this disorder. This module gives some idea of the breadth and depth of required knowledge and surgical skills. This list should not be considered to be fully inclusive or exhaustive.*	
Knowledge	4 Anatomy of the lacrimal system 4 Intranasal anatomy 4 Physiology of lacrimation 4 Causes of epiphora 4'Red Flag' symptoms	
Clinical Skills	4 Take a comprehensive history from a patient presenting with epiphora 3 Relevant ophthalmic examination	

	1 Syringing of lacrimal system and understanding of results 2 Dye disappearance test 3 Understand indications for relevant investigations 4 Team working with ophthalmologist	
Technical Skills and Procedures	4 Nasal endoscopy 4 EUA Nose 2 Endonasal DCR	Desirable Endonasal DCR

TRAINING INTERFACE MODULES

Cleft Lip and Palate

Overview

- This special interest module in cleft lip and palate surgery is aimed at trainees in the disciplines of plastic surgery, otolaryngology and maxillofacial surgery who wish to pursue a career with a major interest in cleft lip and palate surgery.
- The module gives the trainee access to high quality training interacting with three disciplines of surgery simultaneously.
- The training covers the essential requirements of the special interest; the breadth and depth of which will vary according to parent specialty of the trainee.
- It is open to applicants already in specialist surgical training and may be taken at any time after the intercollegiate examination has been successfully achieved and a satisfactory ARCP obtained.
- Entry is by application and selection against a published person specification.
- The appointment process is usually conducted at national level. Scotland is a full member of the scheme and the appointment process, although not the funding is fully integrated.

- Every effort is made to accommodate trainees within a reasonable distance of their base deanery but this is not guaranteed and the process is one of 'secondment'.

- It is recognised that trainees entering the programme will start from a variable base of competence depending upon their previous experience and achievements. The period of training, therefore, is somewhat dependent on the learning and training needs of the trainee. It will comprise a minimum of a year and a maximum of 2 years.

- It is anticipated that trainees enrolling in the module intend to apply for consultant posts in centres that provide a regional or sub-regional service in cleft lip and palate surgery.

- Those wishing further information should consult the JCST website www.jcst.org.uk.

The Purpose of Training in the Interface Discipline of cleft lip and palate surgery

- To train a small number of surgical trainees from the relevant surgical specialties in advanced techniques in the management of cleft lip and palate patients.

- To train surgeons in the relevant specialties to be effective, full members of an interdisciplinary team.

- To understand the soft and hard tissue deformities of the mid face and the commonest congenital oro-facial congenital disorder whose degree is variable.

- To collaborate with other medical and dental disciplines, and non-medical health professionals,

- To correct respiratory, hearing, feeding, speech and facial growth disorders and facial deformity.

- To be involved with early diagnosis and care of cleft patients and their families which may start before birth.

- To understand and be a part of multidisciplinary teams that span cleft lip and palate treatment from paediatric presentation through to adulthood.

- To cover the full range of primary and secondary cleft surgical procedures and some of the related procedures that the advanced trainee (and later the consultant) depending on their parent speciality (e.g. insertion of grommets, aspects of dental surgical management).

Description of Training in cleft lip and palate surgery

- This takes place in a number of placements throughout the UK, which have been approved through the JCST mechanism. At the time of writing in October 2008, there are seven approved posts in the United Kingdom.

- By the time that the appointment is taken up the trainee will have discussed his/her learning requirements with the lead surgeon for the module, who will act in the capacity of local programme director for the whole module.

- This dialogue will result in the construction of a learning agreement that will apply to the whole module and will outline the placements and the general direction of travel. The specific essential requirements are set down in the syllabus.

- During each placement, the trainee will relate to an Assigned Educational Supervisor (AES) in the usual way for the purposes of mentoring, monitoring and the end of placement summative report to the ARCP panel. The cleft lip and palate interface team provide an external mentor to ensure that progress is satisfactory.

- It may be appropriate for the lead surgeon role and the AES roles to be combined if the local geography and working permit.

- The lead surgeon will be responsible for all the liaison functions, i.e. with the Interface Group of the JCST, the ARCP panels both base and home, the relevant programme director in the trainee's specialty.

Regulation

- At the time of writing, the module is not recognised as a 'subspecialty' for the purposes of entry onto the Specialist Register, but as an area of 'Special Interest' within the parent specialty.

- The module is competence based and successful completion depends upon achieving the essential requirements for completion as laid out in the syllabus.

- Assessment during the module is through the ARCP process. This is carried out through the local (host) deanery or school of surgery on behalf of the (base) deanery with whom the trainee is registered. The host deanery will liaise carefully with the base deanery.

- Selection occurs through the parent deanery (Severn). These posts are advertised through the British Medical Journal and appointed by a committee involving the three parent specialties. The training programme director has to provide a structured report of the trainees' suitability for the post prior to interview. Appointments are usually made in January.

- The Interface Committee for the special interest will monitor the overall progress of trainees taking the module and the workings of the placements, on behalf of the JCST.

- CCT will be deferred until the essential syllabus for both the parent specialty and the interface modules have been successfully completed.

- Trainees judged to have completed the module successfully by their host deanery ARCP panel will be recommended for the CCT to their base deanery through the usual channels. The Chairman of the Interface Committee of the JCST will write to acknowledge this.

- The CCT will be issued in the specialty with which the trainee is registered.

- Those trainees judged not to have completed the requirements of the module successfully within the time frame set or sooner should their progress be unsatisfactory, will be informed of this by the host ARCP panel and referred back to their base deanery.

- Upon completion of the module, the trainee will transfer back to the base deanery in his/her specialty programme. Experience has shown that most trainees leave the module having completed the essential requirements and successfully achieved a consultant appointment.

The Scope and Standards of Practice for the Completion of the Training Module in cleft lip and palate surgery

Upon successful completion of this module, the surgeon will be able to:

- Comply with all the professional requirements of the CCT in the specialty with which he/she is registered. These are based on the domains outlined in CanMEDS and in Good Medical Practice of the GMC and are listed elsewhere.

- Provide effective counselling for patients and their relatives at the onset and presentation of cleft lip and palate patients, and for the duration of care.

- Deliver the care outlined in the purpose of interface training in cleft lip and palate surgery

- Act as an effective member of the MDT for cleft lip and palate patients.

Essential Syllabus

The core syllabus is common across all three specialties and by the end of the module the trainee will have the following**:**

- Basic sciences knowledge in relation to cleft lip and palate patients in particular the embryology and anatomy.

- The ability to initiate, perform and interpret appropriate investigative techniques for the management of cleft lip and palate patients.

- A working knowledge of multi-disciplinary teams which includes: multi-disciplinary clinics, the development of inter–personal skills with patients and families, and the inter-relationship with speech and language therapists, dental and prosthetic care, physiotherapists, dieticians, psychologists, specialist audiology services and paediatric developmental services.

- Knowledge of and clinical and technical skills in the principles of management of cleft lip and palate patients including both primary and subsequent treatments.

- The principles and practice of rehabilitation: includes restorative dental techniques, speech rehabilitation, swallowing and nutrition.

- Data Management
    - Understanding of data sets
    - Understanding of outcome measures

The essential operative competencies that the trainee will need to achieve by the end of the module are shown in the table below. The levels are as follows:

1. has observed
2. can do with assistance
3. can do whole but may need assistance
4. competent to do without assistance, including complications

Assessment strategy

Progress will be monitored through the ARCP (previously RITA by the parent specialty)

Basic knowledge will have been assessed by the specialty exit exam prior to entry

Knowledge and decision making skill will be assessed through reports generated throughout the training.

Summary assessment forms will be agreed between the Assigned Educational Supervisor and fellow every three months and will be returned to the interface panel (to be submitted later)

Surgical e-logbook summaries will be presented six monthly during training to the interface panel

Click on Workplace Based Assessments to view the assessment forms including DOPS and PBAs

Cleft Lip and Palate Topics

Topic	Basic sciences
Category	Cleft Lip and Palate Stage 1 Key Objectives to be achieved in the first 6 months
Sub-category:	Basic science as applied to Cleft surgery
Objective	*To understand basic sciences in relation to cleft lip and palate patients*
Knowledge	4 Process and timing of facial (including dental), branchial arch and otological development during pregnancy and their relationship to investigations and their limitations 3 Teratogenesis and genetics 4 Common syndromes 3 Relationship to other syndromes 4 Pathogenesis and aetiological risks 4 Normal anatomy and the variations found in cleft lip and palate patients 4 Cardio-respiratory physiology of newborn, energy requirements, growth, development milestones in the first year of life, IV fluid management, principles of resuscitation 4 Feeding mechanisms, swallowing, relation of infant feeding and later speech mechanisms, nasal and Eustachian tube and middle ear physiology 3 Speech and language development
Clinical Skills	History and Examination: 4 Applies above principles Data Interpretation: 4 Evaluates diagnostic imaging (CT and MRI) in light of the anatomy and its variations 4 Applies physiological principles to laboratory and other investigations to patient care To integrate the previous sections into patient management
Technical Skills and Procedures	N/A

Topic	Patient management and family care
Category	Cleft Lip and Palate Stage 1 Key Objectives to be achieved in the first 6 months
Sub-category:	
Objective	*To apply the principles of patient care, develop team working and liaise with the family and other carers*
Knowledge	4 Understanding the expertise and role of other disciplines in cleft management

	4 Fitness and principles of anaesthesia in relations to problems encountered here 4 Principles and techniques of primary and secondary cleft surgery of lip and palate, including unilateral alveolar bone graft 4 Ethical issues around management 4 Post-operative management, including introduction of feeding 3 Evidence based medicine and audit 3 Principles of biomedical research and clinical care
Clinical Skills	History and Examination: 4 Elicit relevant history including difficult circumstances 4 Elicit pregnancy history 4 Obtains information from the family 4 Examine the head and neck using diagnostic endoscopic equipment if necessary 4 Communicates effectively with patient and other members of the team Data Interpretation: 4 Interpret haematological, biochemical and other relevant investigations 4 Evaluate diagnostic imaging (CT and MRI) in light of the anatomy and its variations Patient Management: 4 Empathizes with family 4 Prioritise patient's needs 4 Assess patient needs prior to theatre 4 Fluid balance 4 Anti microbial and other drug therapy 4 Taking consent 4 Team working with medical and other workers such as dieticians, speech therapists 4 Records and presents data accurately
Technical Skills and Procedures	4 APLS/PALS 3 Diagnostic fibreoptic endoscopy 4 Applies basic principles of surgery and uses instruments and other modalities as listed in the logbook 3 Involved with research and audit

Topic	**Surgical skills**
Category	Cleft Lip and Palate Stage 1 Key Objectives to be achieved in the first 6 months
Sub-category:	
Objective	*To integrate knowledge and behaviour with the developing surgical skills*
Knowledge	4 Details and variations of the primary surgical procedures. These include surgical anatomy, pathological anatomy, techniques and timing, rationale of different sequences 4 Details and variations of the secondary surgical procedures. These include surgical anatomy, pathological anatomy, techniques and timing, rationale of different sequences 4 Preparation for bone grafting, correct assessment of evolution of secondary dentition, 3 Understands orthodontic investigations and treatment. 3 Understands planning, surgical principles in orthognathic appliances and their usage, including methods of distraction osteogenesis 4 Understands the surgery required to correct and repair the nasal deformities
Clinical Skills	Please refer to Patient management and family care
Technical Skills and Procedures	4 Operative skill to repair the lip, palate and appropriate other structures according to Unit protocol 4 Ability to make appropriate lip revision, ability to make appropriate fistula closure

	4 Assessing appropriateness of referral for speech investigations, assessing likely co-operation of patient, basic interpretation of results for repair of velo-pharyngeal dysfunction 3 Ability to undertake alveolar bone grafting and orthognathic surgery 4 Ability to undertake septorhinoplasty with and without augmentation

Topic	**Team working**
Category	Cleft Lip and Palate Stage 1 Key Objectives to be achieved in the first 6 months
Sub-category:	Multidisciplinary management
Objective	*None*
Knowledge	Understanding the expertise and role of other disciplines in cleft management
Clinical Skills	Effective communication with other disciplines Presentation of clinical cases
Technical Skills and Procedures	N/A

Topic	**Communication**
Category	Cleft Lip and Palate Stage 1 Key Objectives to be achieved in the first 6 months
Sub-category:	Multidisciplinary management
Objective	*None*
Knowledge	Methods and timing of involvement of other disciplines in cleft care
Clinical Skills	Appropriate involvement of other professionals
Technical Skills and Procedures	N/A

Topic	**Empathy and sensitivity, ethics, consent**
Category	Cleft Lip and Palate Stage 1 Key Objectives to be achieved in the first 6 months
Sub-category:	Multidisciplinary management
Objective	*None*
Knowledge	Range of patient and parent reaction to cleft deformity and its consequences Knowledge of ethical issues in cleft management
Clinical Skills	Identifying patients and parents concerns Take consent effectively for primary cleft operations Ability to discuss ethical issues and potential complications
Technical Skills and Procedures	N/A

Topic	**Antenatal diagnosis**
Category	Cleft Lip and Palate Stage 1 Key Objectives to be achieved in the first 6 months
Sub-category:	Multidisciplinary management
Objective	*None*
Knowledge	Possibilities and limitations of antenatal diagnosis Likelihood of undiagnosed coexistent abnormalities
Clinical Skills	Ability to ascertain details of antenatal diagnosis Ability to prioritise information

	Ability to use simple language in discussing diagnoses
Technical Skills and Procedures	N/A

Topic	**Organisation and planning**
Category	Cleft Lip and Palate Stage 1 Key Objectives to be achieved in the first 6 months
Sub-category:	Multidisciplinary management
Objective	*None*
Knowledge	Systematic approach to patient management
Clinical Skills	Starting with important tasks Improvement of efficiency Discussing prioritisation with colleagues in the team
Technical Skills and Procedures	N/A

Topic	**Data and record management**
Category	Cleft Lip and Palate Stage 1 Key Objectives to be achieved in the first 6 months
Sub-category:	Multidisciplinary management
Objective	*None*
Knowledge	Understand how data are recorded by different specialties in cleft management
Clinical Skills	Contribute accurate records Understand significance of data recorded by others
Technical Skills and Procedures	N/A

Topic	**Audit/Evidence based medicine**
Category	Cleft Lip and Palate Stage 1 Key Objectives to be achieved in the first 6 months
Sub-category:	Multidisciplinary management
Objective	*None*
Knowledge	Principles of EBM Important clinical trials in cleft management Ongoing audit in cleft management
Clinical Skills	Critically appraise evidence Competent use of paper and electronic data sources Ability to discuss evidence with parents and patients at appropriate level Ability to carry out audit project
Technical Skills and Procedures	N/A

Topic	**Research**
Category	Cleft Lip and Palate Stage 1 Key Objectives to be achieved in the first 6 months
Sub-category:	Multidisciplinary management
Objective	*None*
Knowledge	Place of research in aiding patient management Different methods of research and application of these
Clinical Skills	Involvement in departmental research project Using critical analysis skills to determine research questions
Technical Skills and Procedures	N/A

Topic	**Embryology**
Category	Cleft Lip and Palate Stage 2 Objectives to be Achieved within 18 months
Sub-category:	Core knowledge
Objective	*None*
Knowledge	Process and timing of facial, branchial arch and otological development Teratogenic effects
Clinical Skills	Ability to relate deformity/anomaly to embryology
Technical Skills and Procedures	N/A

Topic	**Genetics, syndromes**
Category	Cleft Lip and Palate Stage 2 Objectives to be Achieved within 18 months
Sub-category:	Core knowledge
Objective	*None*
Knowledge	Genetics of cleft lip and palate Cleft syndromes Common cranio-facial syndromes Cleft syndromes with risk of disability in other systems
Clinical Skills	Sensitive discussion of new findings Use of clinical genetics inputs
Technical Skills and Procedures	N/A

Topic	**Growth and development in infant/child nutrition**
Category	Cleft Lip and Palate Stage 2 Objectives to be Achieved within 18 months
Sub-category:	Core knowledge
Objective	*None*
Knowledge	Cardio-respiratory physiology of newborn Energy requirements Growth Development milestones in the first year of life IV fluid management Principles of resuscitation (APLS/PALS) Feeding mechanisms, swallowing, relation of infant feeding and later speech mechanisms, nasal and Eustachian tube and middle ear physiology
Clinical Skills	Use of growth charts, recognising growth/development exceptions in syndromic patients, appropriate referral of developmental delay, learning difficulties, childhood disability
Technical Skills and Procedures	N/A

Topic	**Speech Development**
Category	Cleft Lip and Palate Stage 2 Objectives to be Achieved within 18 months
Sub-category:	Core knowledge
Objective	*None*
Knowledge	Feeding mechanisms, swallowing, relation of infant feeding and later speech

	mechanisms, nasal and Eustachian tube and middle ear physiology Range of normal speech development mechanisms at risk in cleft, effect of otitis media with effusion, speech skills at school entry
Clinical Skills	Effective liaison with Speech Therapists, effective liaison with ENT, appropriate interventions in pre-school child and school child
Technical Skills and Procedures	N/A

Topic	**Peri-operative Management**
Category	Cleft Lip and Palate Stage 2 Objectives to be Achieved within 18 months
Sub-category:	Core knowledge
Objective	*None*
Knowledge	Range of normal pre-operative parameters in children, significant dangers for anaesthetics and operation, principles of post-operative fulid management, antibiotic policy
Clinical Skills	Appropriate examination, liaison with Anaesthetics and Ward staff, counselling of parents, post-operative fluids and feeding management, thresholds for Intensive Care interventions
Technical Skills and Procedures	N/A

Topic	**Antenatal management**
Category	Cleft Lip and Palate Stage 2 Objectives to be Achieved within 18 months
Sub-category:	Antenatal management
Objective	N/A
Knowledge	Possibilities and limitations of antenatal diagnosis, likelihood of undiagnosed coexistent abnormalities
Clinical Skills	Ability to ascertain details of antenatal diagnosis, ability to prioritise information, ability to use simple language in discussing diagnoses Ability to conduct ante-natal counselling, demonstrate appropriate liaison with Fetal Medicene Department
Technical Skills and Procedures	N/A

Topic	**Airway**
Category	Cleft Lip and Palate Stage 2 Objectives to be Achieved within 18 months
Sub-category:	Post natal management
Objective	*None*
Knowledge	Airway in Pierre Robin, choanal and laryngeal anomalies
Clinical Skills	Airway management in collaboration with other professionals
Technical Skills and Procedures	N/A

Topic	**Feeding**
Category	Cleft Lip and Palate Stage 2 Objectives to be Achieved within 18 months
Sub-category:	Post natal management
Objective	*None*
Knowledge	Energy requirements and preferred methods of feeding in clefts, feeding problems in syndromic and premature babies
Clinical Skills	Liaise with other professionals on optimisation of cleft patients' feeding
Technical Skills and Procedures	N/A

Topic	**Counselling**
Category	Cleft Lip and Palate Stage 2 Objectives to be Achieved within 18 months
Sub-category:	Post natal management
Objective	*None*
Knowledge	Understanding of techniques and priorities of informing parents of new patients
Clinical Skills	Counselling parents of new patients, ability to use simple language, ability to demonstrate priorities to parents
Technical Skills and Procedures	N/A

Topic	**Principles of pre-surgical orthodontics**
Category	Cleft Lip and Palate Stage 2 Objectives to be Achieved within 18 months
Sub-category:	Post natal management
Objective	*None*
Knowledge	Awareness of orthodontic preferences, awareness of situations indicating pre-surgical orthodontics
Clinical Skills	Appropriate discussion with Orthodontic colleagues
Technical Skills and Procedures	N/A

Topic	**Primary lip repair**
Category	Cleft Lip and Palate Stage 2 Objectives to be Achieved within 18 months
Sub-category:	Primary surgery
Objective	*None*
Knowledge	Surgical anatomy, pathological anatomy, techniques and timing, rationale of different sequences
Clinical Skills	N/A
Technical Skills and Procedures	Operative skill to repair the lip and appropriate other structures according to Unit protocol

Topic	**Primary Palate repair**
Category	Cleft Lip and Palate Stage 2 Objectives to be Achieved within 18 months
Sub-category:	Primary surgery
Objective	*None*
Knowledge	Surgical anatomy, pathological anatomy, techniques and timing, rationale of different sequences
Clinical Skills	N/A
Technical Skills and Procedures	Operative skill to repair the palate and appropriate other structures according to Unit protocol

Topic	**Lip revision and fistula closure**
Category	Cleft Lip and Palate Stage 2 Objectives to be Achieved within 18 months
Sub-category:	Secondary surgery
Objective	*None*
Knowledge	Appropriate assessment of lip/fistula disability, awareness of patient perceptions
Clinical Skills	None
Technical Skills and Procedures	Ability to make appropriate lip revision, ability to make appropriate fistula closure

Topic	**Investigation of velo-pharyngeal function**
Category	Cleft Lip and Palate Stage 2 Objectives to be Achieved within 18 months
Sub-category:	Secondary surgery
Objective	*None*
Knowledge	Indications for speech investigations, methods and limitations, radiation protection
Clinical Skills	N/A
Technical Skills and Procedures	Assessing appropriateness of referral for speech investigations, assessing likely co-operation of patient, basic interpretation of results Full interpretation of the results and formation of clinical plan

Topic	**Secondary palatal surgery, surgical management of VPI**
Category	Cleft Lip and Palate Stage 2 Objectives to be Achieved within 18 months
Sub-category:	Secondary surgery
Objective	*None*
Knowledge	Anatomy and physiology of palatal function and abnormalities after cleft closure, pathophysiology of VPI
Clinical Skills	N/A
Technical Skills and Procedures	Judgement on correct operations for secondary repair and control of VPI, skilful dissection of palate after previous repair, surgical skills in speech surgery, pharyngoplasty

Topic	**Alveolar bone graft**
Category	Cleft Lip and Palate Stage 2 Objectives to be Achieved within 18 months
Sub-category:	Secondary surgery

Objective	*None*
Knowledge	Preparation for bone grafting, correct assessment of evolution of secondary dentition, understanding of orthodontic investigations and treatment
Clinical Skills	None
Technical Skills and Procedures	Surgical skills in alveolar bone grafting, correct peri-operative management

Topic	**Rhinoplasty**
Category	Cleft Lip and Palate Stage 2 Objectives to be Achieved within 18 months
Sub-category:	Secondary surgery
Objective	*None*
Knowledge	Anatomy and pahthological anatomy of the cleft nose, understanding of corrective procedures
Clinical Skills	None
Technical Skills and Procedures	Demonstrate surgical skills in cleft rhinoplasty, management of cleft airway and nasal septum

Topic	**Cleft related orthognathic surgery**
Category	Cleft Lip and Palate Stage 2 Objectives to be Achieved within 18 months
Sub-category:	Secondary surgery
Objective	*None*
Knowledge	Understanding of anatomy and pathological anatomy, understanding of planning, surgical principles in orthognathic appliances and their usage, methods of distraction osteogenesis
Clinical Skills	None
Technical Skills and Procedures	Ability to perform orthognathic surgery under supervision

Topic	**Basic Otology and hearing assessment**
Category	Cleft Lip and Palate Stage 2 Objectives to be Achieved within 18 months
Sub-category:	Multidisciplinary teamworking
Objective	*None*
Knowledge	Interpretation of audiogram and tympanometry study, understanding the principles of brain stem evoked response audiometry
Clinical Skills	Ability to refer from appropriate history and audiogram
Technical Skills and Procedures	N/A

Topic	**Orthodontics**
Category	Cleft Lip and Palate Stage 2 Objectives to be Achieved within 18 months
Sub-category:	Multidisciplinary teamworking
Objective	N/A
Knowledge	Understanding of orthodontic role in cleft care, planning AGB, planning orthognathic surgery, orthodontic measurement of mid-facial growth
Clinical Skills	Appropriate liaison with Orthodontists

Technical Skills and Procedures	N/A

Topic	**Speech and language therapy**
Category	Cleft Lip and Palate Stage 2 Objectives to be Achieved within 18 months
Sub-category:	Multidisciplinary teamworking
Objective	*None*
Knowledge	Speech and language therapy input into cleft management, tools for examining speech development, surgical and orthodontic assistance to speech therapy
Clinical Skills	Appropriate liaison with Speech and language therapists, partaking in policy formation for patients concerning speech managementbg
Technical Skills and Procedures	N/A

Topic	**Paediatric and restorative dentistry**
Category	Cleft Lip and Palate Stage 2 Objectives to be Achieved within 18 months
Sub-category:	Multidisciplinary teamworking
Objective	*None*
Knowledge	Understanding of the role of Paediatric Dentists, understanding basics of oral and dental hygiene, understanding principles of restorative dentistry
Clinical Skills	Appropriate referral to Paediatric and Restorative Dentist
Technical Skills and Procedures	N/A

Topic	**Child and adolescent psychology**
Category	Cleft Lip and Palate Stage 2 Objectives to be Achieved within 18 months
Sub-category:	Multidisciplinary teamworking
Objective	*None*
Knowledge	Awareness of the role of Psychologists in childhood and adolescence, understanding of situations requiring psychology therapy
Clinical Skills	Care in selection of appropriate patients/families for referral
Technical Skills and Procedures	N/A

Topic	**Children with disabilities**
Category	Cleft Lip and Palate Stage 2 Objectives to be Achieved within 18 months
Sub-category:	Multidisciplinary teamworking
Objective	*None*
Knowledge	Understanding the role of Community Paediatrics and associated professionals, special needs teaching, awareness of communication disorders
Clinical Skills	Appropriate liaison with community agencies, ability to write relevant reports
Technical Skills and Procedures	N/A

Topic	**Ethical issues**
Category	Cleft Lip and Palate Stage 2 Objectives to be Achieved within 18 months
Sub-category:	Multidisciplinary teamworking
Objective	*None*
Knowledge	Understanding of consent in older children and adolescents, Gillick competence, ethics of new procedures
Clinical Skills	Ability to take consent from older children and adolescents, ability to communicate medical ethics to parents and older children
Technical Skills and Procedures	N/A

Topic	**General paediatric issues**
Category	Cleft Lip and Palate Stage 2 Objectives to be Achieved within 18 months
Sub-category:	Multidisciplinary teamworking
Objective	*None*
Knowledge	Understanding resuscitation of children Understanding issues of non-accidental injury and child protection
Clinical Skills	Maintenance of APLS/PALS skills Ability to recognise signs of NAI, risk factors, family pathology, awareness of NAI referral pathways to child protection
Technical Skills and Procedures	N/A

Topic	**Management of residual cleft deformity in adults**
Category	Cleft Lip and Palate Stage 2 Objectives to be Achieved within 18 months
Sub-category:	Multidisciplinary teamworking
Objective	*None*
Knowledge	Understanding of situation at cessation of facial growth, basic understanding of nasal septal deformity, understanding of adult self-image problems, understanding of adult communication problems
Clinical Skills	Ability to assemble appropriate professionals to solve adults' concerns
Technical Skills and Procedures	N/A

Topic	**Children with disabilities**
Category	Cleft Lip and Palate Stage 2 Objectives to be Achieved within 18 months
Sub-category:	Multidisciplinary teamworking
Objective	*None*
Knowledge	Understanding the role of Community Paediatrics and associated professionals, special needs teaching, awareness of communication disorders
Clinical Skills	Appropriate liaison with community agencies, ability to write relevant reports
Technical Skills and Procedures	N/A

Topic	**Rhinoplasty**

Category	Cleft Lip and Palate Stage 2 Objectives to be Achieved within 18 months
Sub-category:	Secondary surgery
Objective	*None*
Knowledge	Anatomy and pathological anatomy of the cleft nose, understanding of corrective procedures
Clinical Skills	None
Technical Skills and Procedures	Demonstrate surgical skills in cleft rhinoplasty, management of cleft airway and nasal septum

Head and Neck Oncological Topics

Basic Sciences	
Objective	To understand the anatomy, physiology and diagnostic and imaging science as applied to head and neck oncology
Knowledge	**Surgical Anatomy** 4 Thorough knowledge base in Anatomy as it pertains to surgery of the head and neck, including the relevant surgical anatomy of those areas of the human body used to provide grafts for free tissue transfer. **Genetics as it relates to the current knowledge of Head and Neck Cancer aetiology** 3 Genetics, oncogenes, Genomic & Genetic Analysis, Somatic alterations, significance of genetic mutations, alterations and deletions, together with proteomic analysis and the relevance of translational research. **Current concepts on the aetiology and Pathology of Cancer** 4 Risk factors, environmental, infective and genetic, and an understanding of the relevance of the accurate interpretation of the current literature in this evolving field. **Immunology** 3 The role of immune surveillance and cell recognition of self and non-self in relation to cancer. **Epidemiology of head and neck cancer** 4 Importance of epidemiology of Cancer in understanding the different prevalence both nationally and internationally, and its relevance to healthcare planning. **Surgical pathology** 4 Understanding of the importance of good inter-specialty communication between pathologist and clinician. Awareness of the various techniques available to assist in clinical diagnosis and treatment planning. **Normal physiology** 4 Voice, swallowing and respiration of the upper airway and cardio-respiratory physiology, energy requirements, metabolism and major surgery, physiology of free tissue transfer. **Clinical microbiology** 4 The relevance of asepsis and infection control; understanding the patterns of infection in Head and neck surgery; and a close clinical involvement with Microbiology in patient care. 3 Laser safety and laser physics.
Clinical skills	N/A
Technical skills and procedures	N/A

Oral Cavity	
Objective	To be competent in managing patients with oral cavity tumours and be familiar with the treatment options and rehabilitation following treatment of patients with malignant tumours
Knowledge	4 Aetiology of benign tumours of the oral cavity and teeth 4 Aetiology, epidemiology, pathology, natural history and treatment options for squamous cell carcinoma of the oral cavity and contiguous structures including metastatic disease. 4 Aetiology, epidemiology, pathology, natural history and treatment options for lymphoma of the oral cavity and contiguous structures including metastatic disease. 4 Aetiology, epidemiology, pathology, natural history and treatment options for minor salivary gland tumours of the oral cavity and contiguous structures including metastatic disease. 4 Aetiology, epidemiology, pathology, natural history and treatment options for Sarcoma of the oral cavity and contiguous structures including metastatic disease. 4 Aetiology, epidemiology, pathology, natural history and treatment options for Melanoma of the oral cavity and contiguous structures including metastatic disease. 4 Differential diagnosis and management of leukoplakic / erthyroleukoplakic lesions of the oral cavity 4 Surgical anatomy of the oral cavity and contiguous structures 4 UICC/AJC TNM Staging classification of oral malignancies 4 Physiology of swallowing 4 Principles of reconstructive surgery of the oral cavity 4 Diagnosis and management of osteoradionecrosis
Clinical skills	4 the appropriate use of investigations including imaging, examination and biopsy to stage the disease 4 The appropriate use of surgical access routes to tumour sites within the oral cavity and adjacent structures 4 The appropriate mode of tumour excision (including laser) compatible with safe margins of excision and maximising preservation of function. 4 The appropriate use of reconstructive techniques to maximise function including post operative care of flaps 4 Appropriate pre-treatment assessment of oral hygiene / health and appropriate pre emptive management thereof
Technical skills and procedures	2 Dental extractions 3 Partial glossectomy (incl. Use of laser) 2 Access surgery/mandibular split 2 Mandibulectomy (partial/total) 3 Tumour excision; floor of mouth, buccal, hard palate 2 Reconstructive surgery; appropriate selection of free/myocutaneous/local flaps 4 Correct use of different types of laser

Larynx	
Objective	To be competent in managing patients with laryngeal cancer and be familiar with the treatment options and rehabilitation following treatment of patients
Knowledge	4 Anatomy & embryology of the larynx 4 Physiology of speech & swallowing 4 Pathological conditions affecting the larynx including non squamous neoplastic conditions 4 Epidemiology and aetiology of laryngeal cancer 4 Presentation of laryngeal cancer 4 Treatment options for laryngeal cancer including organ preservation strategies and side effects of treatment 4 Rehabilitation of speech and voice disorders following treatment of laryngeal cancer 3 Molecular biology of laryngeal cancer 4 UICC / AJC TNM staging of laryngeal / neck cancer
Clinical skills	4 Full history and examination including in patients with difficulties with communication 4 Flexible nasopharyngoscopy 4 Preoperative assessment / management of co-morbid disease 4 Staging including use of appropriate special investigations 3 Assessment of speech and swallowing 3 Videolaryngoscopy / functional endoscopic sinus surgery (FESS) 4 Management of the postoperative patient 2 Management of tracheo-oesophageal valves
Technical skills and procedures	3 Microlaryngoscopy. Use of Hopkins rods for assessing laryngeal pathology 2 Transoral endoscopic resection of laryngeal tumours 2 Partial laryngeal resections (hemilaryngectomy, near total laryngectomy) 2 Total laryngectomy 2 Surgical voice restoration 4 Tracheostomy (open/percutaneous) 2 Vocal cord medialisation procedures 4 Neck dissection

Pharynx including oropharynx and hypopharynx	
Objective	To be competent in managing patients with oral and hypopharyngeal cancer and be familiar with the treatment options and rehabilitation following treatment of patients
Knowledge	4 Anatomy & embryology of the Pharynx 4 Physiology of swallowing 4 Pathological conditions affecting the Pharynx including non squamous neoplastic conditions 4 Epidemiology and aetiology of Pharyngeal cancer 4 Presentation of Pharyngeal cancer 4 Treatment options for Pharyngeal cancer incl. Organ preservation strategies and side effects of therapy 3 Molecular biology of Pharyngeal cancer 4 UICC / AJC TNM staging of Pharyngeal / neck cancer
Clinical skills	4 Full history and examination including in patients with difficulties with communication 4 Flexible nasopharyngoscopy 4 Preoperative assessment / management of co-morbid disease 4 Staging including use of appropriate special investigations 3 Assessment of speech and swallowing 3 Videolaryngoscopy / FESS 4 Management of the postoperative patient 2 Management of tracheo-oesophageal valves
Technical skills and procedures	3 Panendoscopy including radical tonsillectomy / rigid and flexible oesophagoscopy 3 Transoral endoscopic laser resection of Pharyngeal tumours 3 Partial Pharyngeal resections and access surgery 3 Total Pharyngolaryngectomy 3 Reconstruction with local flaps, free vascularised flaps or gastric transposition 4 Tracheostomy (open/percutaneous) 3 Placement of gastrostomy feeding tubes 4 Neck dissection

Nasopharynx	
Objective	To be competent in managing patients with nasopharyngeal cancer and be familiar with the treatment options and rehabilitation following treatment of patients
Knowledge	4 Anatomy & embryology of the nasopharynx 3 Nasal physiology 4 Pathological conditions affecting the nasopharynx 4 Epidemiology and aetiology (including virology) of nasopharyngeal cancer 4 Presentation of nasopharyngeal cancer 4 Treatment options for nasopharyngeal cancer including chemoradiotherapy 4 Risks, benefits and side effects of various treatments 4 Rehabilitation during and after treatment 3 Recurrent nasopharyngeal cancer 4 UICC / AJC TNM staging of nasopharyngeal cancer
Clinical skills	4 Full history and examination including in patients with difficulties with communication 4 Flexible nasopharyngoscopy 4 Preoperative assessment / management of co-morbid disease 4 Staging including use of appropriate special investigations 4 Pre treatment assessment including fine needle aspiration / microtrephine / trucut techniques 4 Staging including use of appropriate special investigations and panendoscopy 3 Assessment of swallowing / nasal regurgitation + hyper/hyponasality 3 Management including the complications of chemotherapy 4 Management of the postoperative patient.
Technical skills and procedures	4 Examination and biopsy of postnasal space 2 Insertion ventilation tube through the tympanic membrane 2 insertion of gastrostomy tubes (various methods) 2 Access for resection of recurrent cancer 4 Neck dissection

Salivary glands	
Objective	To be competent in managing patients with major and minor salivary gland cancers and be familiar with the treatment options and rehabilitation following treatment of patients
Knowledge	4 Anatomy & embryology of major & minor salivary glands including Vth, VIIth - XIIth, cranial nerves 4 Salivary gland physiology 4 Salivary glandpathology 4 Epidemiology and aetiology of salivary gland cancer 4 Presentation of salivary gland cancer 4 Principles of treatment of patients with salivary gland cancer 4 UICC / AJC TNM staging of nasopharyngeal cancer
Clinical skills	4 Full history and examination of salivary glands and associated cranial nerves 4 Preoperative assessment including co-morbidities and dentition 4 Staging incl. use of appropriate special investigations and panendoscopy / EUA 4 Management of the postoperative patient and complications specific to salivary gland surgery
Technical skills and procedures	4 FNAC / incisional biopsy of oral lesions 4 Set up and use of intraoperative facial nerve monitor 4 Submandibular gland excision 4 Superficial parotidectomy 4 Total parotidectomy 4 Extended parotidectomy with neck dissection and flap reconstruction 3 Minor salivary gland excision 3 Facial reanimation procedures including nerve grafting techniques 3 Access surgery for parapharyngeal space 2 Access for resection of recurrent cancer 4 Neck dissection

Tumours of the nose and paranasal sinuses	
Objective	To be competent in managing patients with cancer of the nose and paranasal sinuses and be familiar with the treatment options and rehabilitation following treatment of patients with cancer of the nose and paranasal sinuses.
Knowledge	4 Anatomy and embryology of the nose and paranasal sinuses and related structures 4 Cross sectional and radiological anatomy of nose, sinuses and surrounding structures 4 Nasal physiology 3 Microbiology of the nose and paranasal sinuses and principles of management of chronic rhinosinusitis 3 Pathology of the nose and paranasal sinuses 4 TNM / AJC TNM Classification of cancers of nose and paranasal sinuses 4 Treatment options for cancer of the nose and paranasal sinuses incl. non surgical options 4 Notifiable diseases of the nose and sinuses 3 Management of CSF rhinorrhoea, aerocephaly, raised intracranial pressure and intracranial / intraorbital haemorrhage 2 Principles of orbito facial prostheses including implant supported prostheses 2 Principles of preoperative embolisation
Clinical skills	4 Full history and examination including with patients with difficulties with communication 3 Ophthalmic examination 4 Preoperative assessment including neurological and mental assessment 4 Staging incl. use of appropriate special investigations CT / MRI / MRA / angiography 2 Lumbar puncture +/- fluoroscein instillation 4 Management of the postoperative patient 3 Osseo integrated abutment placement
Technical skills and procedures	4 Rigid / flexible nasal endoscopy 2 Endoscopic excision of cancers 3 Medial maxillectomy 3 Total maxillectomy 2 Orbital exenteration 2 Le Fort access surgery including midface degloving 2 Rhinectomy 3 Craniofacial resection techniques including fascial and dermal fat graft harvest 3 Scalp flap rotation and free flap reconstruction after orbito maxillary surgery 2 Obturator manufacture / fitting / aftercare 3 Bone stabilisation using miniplate systems and wiring techniques 3 Vessel ligation surgery to control epistaxis

Thyroid gland	
Objective	To understand the managing patients with thyroid cancer and the relationship to benign diseases of the thyroid gland be familiar with the treatment options and rehabilitation following treatment of patients
Knowledge	4 Anatomy & embryology of the thyroid / parathyroid glands 4 Thyroid and parathyroid physiology 4 Thyroid / parathyroid pathology / immunology 4 TNM / AJC TNM Classification of thyroid cancer 4 Presentation of thyroid / parathyroid / cancer 4 Treatment options incl.non surgical options 4 Principles of post operative management and monitoring (TSH suppression, Tg and Calcium monitoring) 4 Thy1 - 5 grading of FNA samples 4 British thyroid Association Guidelines for management of thyroid masses 2 Management of medullary cell ca / multiple endocrine neoplasia
Clinical skills	4 Full history and examination including with patients with difficulties with communication 4 Assessment of thyroid status 4 FNA / microtrephine techniques including U/S guided sampling 4 Preoperative assessment including airway assessment and vocal cord check 4 Staging including use of appropriate special investigations 4 Management of the postoperative patient
Technical skills and procedures	4 FNAC and core biopsy 2 Partial thyroidectomy 2 Total thyroidectomy 2 Parathyroidectomy 4 Neck dissection including central nodes 2 Mediastinal exploration including sternotomy

Skin tumours	
Objective	To be competent in managing patients with skin tumours and be familiar with the treatment options and rehabilitation following treatment of patients.
Knowledge	4 Anatomy & embryology of the face and ears 4 Pathological conditions affecting the skin including non squamous neoplastic condidtions 4 Epidemiology and aetiology of skin cancer 4 Understanding of Moh's surgical techniques 4 UICC / AJC TNM staging of skin cancer
Clinical skills	4 Full history and examination including in patients with difficulties with communication 4 Preoperative assessment / management of co-morbid disease 4 Staging including use of appropriate special investigations 4 Management of the postoperative patient
Technical skills and procedures	4 Excision of skin tumours 4 Local flaps for reconstruction 4 Neck dissection 3 Sentinel lymph node biopsy

Working within the multi-disciplinary team	
Objective	By the end of the fellowship the trainee will be able to work within an MDT; Develop a management plan for a patient with HNC and understand the governance arrangements of MDT working; Understand the patient journey in HNC and be familiar with data management; Demonstrate an ability to participate in high quality research and audit pertaining to HNC.
Knowledge	See Professional Behaviour and Leadership Skills syllabus
Clinical skills	4 Word effectively with other members of an MDT 3 Participate in data entry and analysis 3 Participate actively in audit and research projects 3 Develop and design new audit and research proposals 4 Draw up a management plan for patients with a diagnosis of HNC
Technical skills and procedures	N/A

Patient Management	
Objective	To be competent at diagnosing and assessing patients presenting with symptoms of HNC, and developing a holistic professional relationship with patients and their families.
Knowledge	4 Presentation of HNC 4 Preoperative assessment of patients prior to diagnostic & therapeutic procedures 4 General medical, nutritional and psychological conditions affecting patients with HNC 4 Appropriate investigations and interventions by other healthcare professionals in team, i.e. swallowing & speech assessment, dietetics, dental, CNS and psychological intervention 4 Advanced communication skills. Role of other team members in communication with patients and their families 4 Influence of co-morbidity on prognosis and management 4 TNM staging of HNC 3 Anaesthesia for H&N surgery
Clinical skills	4 Relevant clinical history 4 Full examination, ie oral/dental examination, ear, nose and throat examination, neck, examination of areas of the body acting as donor sites for tissue transfer 4 Demonstrate ability to communicate well with, and appropriately involve other members of the core and extended team 4 Take informed consent for diagnostic & therapeutic procedures 4 Work safely & effectively with the anaesthetist in the management of the shared airway 4 Order and interpret appropriate investigations
Technical skills and procedures	4 Flexible and rigid nasopharyngoscopy 4 Direct laryngoscopy, pharyngoscopy, EPNS, rigid oesophagoscopy 4 Microlaryngoscopy, bronchoscopy 4 FNAC, trucut, nasogastric tube 2 Videostroboscopy techniques 2 FESS 2 PEG placement 2 Ultrasound guided FNA 4 Assessment for flaps (e.g. Allens test, doppler) 3 Endotracheal intubation

Emergency management	
Objective	By the end of the module the trainee will be proficient in managing emergencies in Head & Neck Oncology.
Knowledge	4 Presenting features of airway compromise 4 Flap failure 4 Postoperative complications; haematoma, bleeding, infection, cardio-respiratory complications, airway compromise 4 Acute complications of chemotherapy and radiotherapy
Clinical skills	4 Safe and prompt recognition of emergencies 4 Effective liaision with other professionals, e.g. anaesthetists, intensivists, physicians, oncologists 4 Shared airway management 4 Recognition of flap failure; arterial vs venous compromise 4 Recognition of herald bleed / appropriate management of blow out
Technical skills and procedures	4 Tracheostomy 4 Evacuation of haematoma / control of bleeding 3 Flap rescue

Professional Behaviour and Leadership Syllabus

Approved 22 July 2015, for implementation in August 2016

Overview

Click here to download a PDF copy of the 2010 syllabus.

Professional behaviour and leadership skills are integral to the specialty specific syllabuses relating to clinical practice. It is not possible to achieve competence within the specialty unless these skills and behaviours are evident. Professional behaviour and leadership skills are evidenced through clinical practice. By the end of each stage of training, the trainee must be able to demonstrate progress in acquiring these skills and demonstrating these behaviours across a range of situations as detailed in the syllabus.

Under each category heading there are learning objectives in the domains of knowledge, skills and behaviour together with example behaviours. These objectives underpin the activities that are found in the syllabus.

All the workplace based assessments contain elements which assess professional behaviour and leadership skills as illustrated in the matrix below.

WPBA	Good Clinical Care	Communicator	Teaching & Training	Keeping up to date	Manager	Promoting good health	Probity & ethics
CBD	✔✔	✔		✔	✔✔	✔	✔
MSF	✔✔	✔✔	✔	✔	✔	✔	✔✔
CEX	✔✔	✔✔		✔	✔	✔	
PBA	✔✔	✔✔		✔	✔	✔	✔
DOPS	✔✔	✔		✔		✔	✔

Covered ✔✔	Partly covered ✔	Not covered

Click on Workplace Based Assessments to view the assessment forms.

GOOD CLINICAL CARE

	Professional Behaviour and Leadership	Mapping to Leadership Curriculum	Assessment technique	Areas in which simulation should be used to develop relevant skills
Category	**Good Clinical Care**, to include: • History taking (GMP Domains: 1, 3, 4) • Physical examination (GMP Domains: 1, 2,4) • Time management and decision making (GMP Domains: 1,2,3) • Clinical reasoning (GMP Domains: 1,2, 3, 4) • Therapeutics and safe prescribing (GMP Domains: 1, 2, 3) • Patient as a focus of clinical care (GMP Domains: 1, 3, 4) • Patient safety (GMP Domains: 1, 2, 3) • Infection control (GMP Domains: 1, 2, 3)	**Area 4.1**		
Objective	To achieve an excellent level of care for the individual patient • To elicit a relevant focused history (See modules 2, 3, 4,5) • To perform focused, relevant and accurate clinical examination (See modules 2,3,4,5) • To formulate a diagnostic and therapeutic plan for a patient based upon the clinic findings (See modules 2,3,4,5) • To prioritise the diagnostic and therapeutic plan (See modules 2,3,4,5) • To communicate a diagnostic and therapeutic plan appropriately (See modules 2,3,4,5) To produce timely, complete and legible clinical records to include case-note records, handover notes, and operation notes To prescribe, review and monitor appropriate therapeutic interventions relevant to clinical practice including non – medication based therapeutic and preventative indications (See module 1,2,3,4,5) To prioritise and organise clinical and clerical duties in order to optimise patient care To make appropriate clinical and clerical decisions in order to optimise the effectiveness of the clinical team resource. To prioritise the patient's agenda encompassing their beliefs, concerns expectations and needs To prioritise and maximise patient safety:	**Area 4.1**	Mini CEX, CBD, Mini PAT, MRCS and Specialty FRCS	Strongly recommended Patient safety Desirable: Human factors

	• To understand that patient safety depends on
	  ○ The effective and efficient organisation of care
	  ○ Health care staff working well together
	  ○ Safe systems, individual competency and safe practice
	• To understand the risks of treatments and to discuss these honestly and openly with patients
	• To systematic ways of assessing and minimising risk
	• To ensure that all staff are aware of risks and work together to minimise risk
	
	To manage and control infection in patients, including:
	• Controlling the risk of cross-infection
	• Appropriately managing infection in individual patients
	• Working appropriately within the wider community to manage the risk posed by communicable diseases			

Knowledge	**Patient assessment** • Knows likely causes and risk factors for conditions relevant to mode of presentation • Understands the basis for clinical signs and the relevance of positive and negative physical signs • Recognises constraints and limitations of physical examination • Recognises the role of a chaperone is appropriate or required • Understand health needs of particular populations e.g. ethnic minorities • Recognises the impact of health beliefs, culture and ethnicity in presentations of physical and psychological conditions **Clinical reasoning** • Interpret history and clinical signs to generate hypothesis within context of clinical likelihood • Understands the psychological component of disease and illness presentation • Test, refine and verify hypotheses • Develop problem list and action plan • Recognise how to use expert advice, clinical guidelines and algorithms • Recognise and appropriately respond to sources of information accessed by patients • Recognises the need to determine the best value and most effective treatment both for the individual patient and for a patient cohort **Record keeping**			

	• Understands local and national guidelines for the standards of clinical record keeping in all circumstances, including handover • Understanding of the importance of high quality and adequate clinical record keeping and relevance to patient safety and to litigation • Understand the primacy for confidentiality **Time management** • Understand that effective organisation is key to time management • Understand that some tasks are more urgent and/or more important than others • Understand the need to prioritise work according to urgency and importance • Maintains focus on individual patient needs whilst balancing multiple competing pressures • Outline techniques for improving time management **Patient safety** • Outline the features of a safe working environment • Outline the hazards of medical equipment in common use • Understand principles of risk assessment and management • Understanding the components of safe working practice in the personal, clinical and organisational settings • Outline local procedures and protocols for optimal practice e.g. GI bleed protocol, safe prescribing • Understands the investigation of significant events, serious untoward incidents and near misses **Infection control** • Understand the principles of infection control • Understands the principles of preventing infection in high risk groups • Understand the role of Notification of diseases within the UK • Understand the role of the Health Protection Agency and Consultants in Health Protection	**Area 4.1**		
Skills	**Patient assessment** • Takes a history from a patient with appropriate use of standardised questionnaires and with appropriate input from other parties including family members, carers and other health professionals • Performs an examination relevant to the presentation and risk factors that is valid, targeted and time efficient and which			

	actively elicits important clinical findings • Give adequate time for patients and carers to express their beliefs ideas, concerns and expectations • Respond to questions honestly and seek advice if unable to answer • Develop a self-management plan with the patient • Encourage patients to voice their preferences and personal choices about their care **Clinical reasoning** • Interpret clinical features, their reliability and relevance to clinical scenarios including recognition of the breadth of presentation of common disorders • Incorporates an understanding of the psychological and social elements of clinical scenarios into decision making through a robust process of clinical reasoning • Recognise critical illness and respond with due urgency • Generate plausible hypothesis(es) following patient assessment • Construct a concise and applicable problem list using available information • Construct an appropriate management plan in conjunction with the patient, carers and other members of the clinical team and communicate this effectively to the patient, parents and carers where relevant **Record keeping** • Producing legible, timely and comprehensive clinical notes relevant to the setting • Formulating and implementing care plans appropriate to the clinical situation, in collaboration with members of an interdisciplinary team, incorporating assessment, investigation, treatment and continuing care • Presenting well documented assessments and recommendations in written and/or verbal form **Time management** • Identifies clinical and clerical tasks requiring attention or predicted to arise • Group together tasks when this will be the most effective way of working • Organise, prioritise and manage both team-members and workload effectively and flexibly **Patient safety** • Recognise and practise within limits of own	**Area 4.1**		

	professional competence • Recognise when a patient is not responding to treatment, reassess the situation, and encourage others to do so • Ensure the correct and safe use of medical equipment • Improve patients' and colleagues' understanding of the side effects and contraindications of therapeutic intervention • Sensitively counsel a colleague following a significant untoward event, or near incident, to encourage improvement in practice of individual and unit • Recognise and respond to the manifestations of a patient's deterioration or lack of improvement (symptoms, signs, observations, and laboratory results) and support other members of the team to act similarly **Infection control** • Recognise the potential for infection within patients being cared for • Counsel patients on matters of infection risk, transmission and control • Actively engage in local infection control procedures • Prescribe antibiotics according to local guidelines and work with microbiological services where appropriate • Recognise potential for cross-infection in clinical settings • Practice aseptic technique whenever relevant			
Behaviour	• Shows respect and behaves in accordance with Good Medical Practice • Ensures that patient assessment, whilst clinically appropriate considers social, cultural and religious boundaries • Support patient self-management • Recognise the duty of the medical professional to act as patient advocate • Ability to work flexibly and deal with tasks in an effective and efficient fashion • Remain calm in stressful or high pressure situations and adopt a timely, rational approach • Show willingness to discuss intelligibly with a patient the notion and difficulties of prediction of future events, and benefit/risk balance of therapeutic intervention • Show willingness to adapt and adjust approaches according to the beliefs and preferences of the patient and/or carers • Be willing to facilitate patient choice • Demonstrate ability to identify one's own biases and inconsistencies in clinical reasoning • Continue to maintain a high level of safety awareness and consciousness			

	• Encourage feedback from all members of the team on safety issues • Reports serious untoward incidents and near misses and co-operates with the investigation of the same. • Show willingness to take action when concerns are raised about performance of members of the healthcare team, and act appropriately when these concerns are voiced to you by others • Continue to be aware of one's own limitations, and operate within them • Encourage all staff, patients and relatives to observe infection control principles • Recognise the risk of personal ill-health as a risk to patients and colleagues in addition to its effect on performance			
Examples and descriptors for Core Surgical Training	**Patient assessment** • Obtains, records and presents accurate clinical history and physical examination relevant to the clinical presentation, including an indication of patient's views • Uses and interprets findings adjuncts to basic examination appropriately e.g. internal examination, blood pressure measurement, pulse oximetry, peak flow • Responds honestly and promptly to patient questions • Knows when to refer for senior help • Is respectful to patients by o Introducing self clearly to patients and indicates own place in team o Checks that patients comfortable and willing to be seen o Informs patients about elements of examination and any procedures that the patient will undergo **Clinical reasoning** • In a straightforward clinical case develops a provisional diagnosis and a differential diagnosis on the basis of the clinical evidence, institutes an appropriate investigative and therapeutic plan, seeks appropriate support from others and takes account of the patients wishes **Record keeping** • Is able to format notes in a logical way and writes legibly • Able to write timely, comprehensive, informative letters to patients and to GPs **Time management** • Works systematically through tasks and attempts to prioritise • Discusses the relative importance of tasks with more senior colleagues. • Understands importance of communicating			

	progress with other team members **Patient safety** • Participates in clinical governance processes • Respects and follows local protocols and guidelines • Takes direction from the team members on patient safety • Discusses risks of treatments with patients and is able to help patients make decisions about their treatment • Ensures the safe use of equipment • Acts promptly when patient condition deteriorates • Always escalates concerns promptly **Infection control** • Performs simple clinical procedures whilst maintaining full aseptic precautions • Follows local infection control protocols • Explains infection control protocols to students and to patients and their relatives • Aware of the risks of nosocomial infections.	**Area 4.1**		

Examples and descriptors for CCT	**Patient assessment**
	• Undertakes patient assessment (including history and examination) under difficult circumstances. Examples include:
	  ○ Limited time available (Emergency situations, Outpatients, ward referral),
	  ○ Severely ill patients
	  ○ Angry or distressed patients or relatives
	• Uses and interprets findings adjuncts to basic examination appropriately e.g. electrocardiography, spirometry, ankle brachial pressure index, fundoscopy, sigmoidoscopy
	• Recognises and deals with complex situations of communication, accommodates disparate needs and develops strategies to cope
	• Is sensitive to patients cultural concerns and norms
	• Is able to explain diagnoses and medical procedures in ways that enable patients understand and make decisions about their own health care.
	
	Clinical reasoning
	• In a complex case, develops a provisional diagnosis and a differential diagnosis on the basis of the clinical evidence, institutes an appropriate investigative and therapeutic plan, seeks appropriate support from others and takes account of the patients wishes
	
	Record keeping			

	• Produces comprehensive, focused and informative records which summarise complex cases accurately **Time management** • Organises, prioritises and manages daily work efficiently and effectively • Works with, guides, supervises and supports junior colleagues • Starting to lead and direct the clinical team in effective fashion **Patient safety** • Leads team discussion on risk assessment, risk management, clinical incidents • Works to make organisational changes that will reduce risk and improve safety • Promotes patients safety to more junior colleagues • Recognises and reports untoward or significant events • Undertakes a root cause analysis • Shows support for junior colleagues who are involved in untoward events **Infection control** • Performs complex clinical procedures whilst maintaining full aseptic precautions • Manages complex cases effectively in collaboration with infection control specialists	**Area 4.1**		

	Professional Behaviour and Leadership	Mapping to Leadership Curriculum	Assessment technique	Areas in which simulation should be used to develop relevant skills
Category	**Being a good communicator** To include: • Communication with patients (GMP Domains: 1, 3, 4) • Breaking bad news (GMP Domains: 1, 3, 4) • Communication with colleagues (GMP Domains: 1, 3)	N/A		
Objective	**Communication with patients** • To establish a doctor/patient relationship characterised by understanding, trust, respect, empathy and confidentiality • To communicate effectively by listening to patients, asking for and respecting their views about their health and responding to their concerns and preferences • To cooperate effectively with healthcare professionals involved in patient care • To provide appropriate and timely information to patients and their families		PBA, DOPS, Mini CEX, Mini PAT and CBD	Desirable: Human factors

	Breaking bad news • To deliver bad news according to the needs of individual patients **Communication with Colleagues** • To recognise and accept the responsibilities and role of the doctor in relation to other healthcare professionals. • To communicate succinctly and effectively with other professionals as appropriate • To present a clinical case in a clear, succinct and systematic manner			
Knowledge	**Communication with patients** • Understands questioning and listening techniques • Understanding that poor communication is a cause of complaints/ litigation **Breaking bad news** • In delivering bad news understand that: o The delivery of bad news affects the relationship with the patient o Patient have different responses to bad news o Bad news is confidential but the patient may wish to be accompanied o Once the news is given, patients are unlikely to take in anything else o Breaking bad news can be extremely stressful for both parties o It is important to prepare for breaking bad news **Communication and working with colleagues** • Understand the importance of working with colleagues, in particular: o The roles played by all members of a multi-disciplinary team o The features of good team dynamics o The principles of effective inter-professional collaboration o The principles of confidentiality			
Skills	**Communication with patients** • Establish a rapport with the patient and any relevant others (e.g. carers) • Listen actively and question sensitively to guide the patient and to clarify information • Identify and manage communication barriers, tailoring language to the individual patient and others and using interpreters when indicated • Deliver information compassionately, being alert to and managing their and your emotional response (anxiety, antipathy etc.) • Use, and refer patients to appropriate written and other evidence based information sources			

	• Check the patient's understanding, ensuring that all their concerns/questions have been covered • Make accurate contemporaneous records of the discussion • Manage follow-up effectively and safely utilising a variety if methods (e.g. phone call, email, letter) • Provide brief advice on health and self care e.g. use of alcohol and drugs. • Ensure appropriate referral and communications with other healthcare professional resulting from the consultation are made accurately and in a timely manner **Breaking bad news** • Demonstrate to others good practice in breaking bad news • Recognises the impact of the bad news on the patient, carer, supporters, staff members and self • Act with empathy, honesty and sensitivity avoiding undue optimism or pessimism **Communication with colleagues** • Communicate with colleagues accurately, clearly and promptly • Utilise the expertise of the whole multi-disciplinary team • Participate in, and co-ordinate, an effective hospital at night or hospital out of hours team • Communicate effectively with administrative bodies and support organisations • Prevent and resolve conflict and enhance collaboration			
Behaviour	**Communication with patients** • Approach the situation with courtesy, empathy, compassion and professionalism • Demonstrate and inclusive and patient centred approach with respect for the diversity of values in patients, carers and colleagues **Breaking bad news** • Behave with respect, honest ant empathy when breaking bad news • Respect the different ways people react to bad news **Communication with colleagues** • Be aware of the importance of, and take part in, multi-disciplinary teamwork, including adoption of a leadership role • Foster an environment that supports open and transparent communication between team members • Ensure confidentiality is maintained during communication with the team • Be prepared to accept additional duties in			

	situations of unavoidable and unpredictable absence of colleagues Act appropriately on any concerns about own or colleagues' health e.g. use of alcohol and/or other drugs.			
Examples and descriptors for Core Surgical Training	• Conducts a simple consultation with due empathy and sensitivity and writes accurate records thereof • Recognises when bad news must be imparted. • Able to break bad news in planned settings following preparatory discussion with seniors • Accepts his/her role in the healthcare team and communicates appropriately with all relevant members thereof			
Examples and descriptors for CCT	• Shows mastery of patient communication in all situations, anticipating and managing any difficulties which may occur • Able to break bad news in both unexpected and planned settings • Fully recognises the role of, and communicates appropriately with, all relevant team members • Predicts and manages conflict between members of the healthcare team • Beginning to take leadership role as appropriate, fully respecting the skills, responsibilities and viewpoints of all team members			

	Professional Behaviour and Leadership	Mapping to Leadership Curriculum	Assessment technique	Areas in which simulation should be used to develop relevant skills
Category	**Teaching and Training** (GMP Domains: 1, 3)	N/A		
Objective	• To teach to a variety of different audiences in a variety of different ways • To assess the quality of the teaching • To train a variety of different trainees in a variety of different ways • To plan and deliver a training programme with appropriate assessments		Mini PAT, Portfolio assessment at ARCP	Strongly recommended Teaching and Assessment Desirable: Presentation skills Reflective practice
Knowledge	• Understand relevant educational theory and principles relevant to medical education • Understand the structure of an effective appraisal interview			

	• Understand the roles to the bodies involved in medical education • Understand learning methods and effective learning objectives and outcomes • Differentiate between appraisal, assessment and performance review • Differentiate between formative and summative assessment • Understand the role, types and use of workplace-based assessments • Understand the appropriate course of action to assist a trainee in difficulty			
Skills	• Critically evaluate relevant educational literature • Vary teaching format and stimulus, appropriate to situation and subject • Provide effective feedback and promote reflection • Conduct developmental conversations as appropriate eg: appraisal, supervision, mentoring • Deliver effective lecture, presentation, small group and bed side teaching sessions • Participate in patient education • Lead departmental teaching programmes including journal clubs • Recognise the trainee in difficulty and take appropriate action • Be able to identify and plan learning activities in the workplace			
Behaviour	• In discharging educational duties respect the dignity and safety of patients at all times • Recognise the importance of the role of the physician as an educator • Balances the needs of service delivery with education • Demonstrate willingness to teach trainees and other health workers • Demonstrates consideration for learners • Acts to endure equality of opportunity for students, trainees, staff and professional colleagues • Encourage discussions with colleagues in clinical settings to share understanding • Maintains honesty, empathy and objectivity during appraisal and assessment			
Examples and descriptors for Core Surgical Training	• Prepares appropriate materials to support teaching episodes • Seeks and interprets simple feedback following teaching • Supervises a medical student, nurse or colleague through a simple procedure • Plans, develops and delivers small group teaching to medical students, nurses or colleagues			

Examples and descriptors for CCT	• Performs a workplace based assessment including giving appropriate feedback • Devises a variety of different assessments (eg MCQs, WPBAs) • Appraises a medical student, nurse or colleague • Acts as a mentor to a medical student, nurses or colleague • Plans, develops and delivers educational programmes with clear objectives and outcomes • Plans, develops and delivers an assessment programme to support educational activities			

	Professional Behaviour and Leadership	Mapping to Leadership Curriculum	Assessment technique	Areas in which simulation should be used to develop relevant skills
Category	**Keeping up to date and understanding how to analyse information** Including • *Ethical research* (GMP Domains: 1) • Evidence and guidelines (GMP Domains: 1) • Audit (GMP Domains: 1, 2) • Personal development	**Area 1.3**		
Objective	• To understand the results of research as they relate to medical practise • To participate in medical research • To use current best evidence in making decisions about the care of patients • To construct evidence based guidelines and protocols • To complete an audit of clinical practice • At actively seek opportunities for personal development • To participate in continuous professional development activities	**Area 1.3** **Area 1.3**	Mini PAT, CBD, Portfolio assessment at ARCP, MRCS and specialty FRCS	
Knowledge	• Understands GMC guidance on good practice in research • Understands the principles of research governance • Understands research methodology including qualitative, quantitative, bio-statistical and epidemiological research methods • Understands of the application of statistics as applied to medical practise • Outline sources of research funding • Understands the principles of critical appraisal • Understands levels of evidence and quality of evidence • Understands guideline development together with their roles and limitations • Understands the different methods of obtaining			

	data for audit • Understands the role of audit in improving patient care and risk management • Understands the audit cycle • Understands the working and uses of national and local databases used for audit such as specialty data collection systems, cancer registries etc • To demonstrate knowledge of the importance of best practice, transparency and consistency	**Area 1.3**		
Skills	• Develops critical appraisal skills and applies these when reading literature • Devises a simple plan to test a hypothesis • Demonstrates the ability to write a scientific paper • Obtains appropriate ethical research approval • Uses literature databases • Contribute to the construction, review and updating of local (and national) guidelines of good practice using the principles of evidence based medicine • Designs, implements and completes audit cycles • Contribute to local and national audit projects as appropriate • To use a reflective approach to practice with an ability to learn from previous experience • To use assessment, appraisal, complaints and other feedback to discuss and develop an understanding of own development needs	**Area 1.3** **Area 1.3**		
Behaviour	• Follows guidelines on ethical conduct in research and consent for research • Keep up to date with national reviews and guidelines of practice (e.g. NICE) • Aims for best clinical practice at all times, responding to evidence based medicine while recognising the occasional need to practise outside clinical guidelines • Recognise the need for audit in clinical practice to promote standard setting and quality assurance • To be prepared to accept responsibility • Show commitment to continuing professional development	**Area 1.3** **Area 1.3**		
Examples and descriptors for Core Surgical Training	• Defines ethical research and demonstrates awareness of GMC guidelines • Differentiates audit and research and understands the different types of research approach e.g. qualitative and quantitative • Knows how to use literature databases • Demonstrates good presentation and writing skills • Participates in departmental or other local journal club • Critically reviews an article to identify the level of evidence • Attends departmental audit meetings • Contributes data to a local or national audit • Identifies a problem and develops standards for	**Area 1.3**		

	a local audit • Describes the audit cycle and take an audit through the first steps • Seeks feedback on performance from clinical supervisor/mentor/patients/carers/service users	**Area 1.3**		
Examples and descriptors for CCT	• Demonstrates critical appraisal skills in relation to the published literature • Demonstrates ability to apply for appropriate ethical research approval • Demonstrates knowledge of research organisation and funding sources • Demonstrates ability to write a scientific paper • Leads in a departmental or other local journal club • Contributes to the development of local or national clinical guidelines or protocols • Organise or lead a departmental audit meeting • Lead a complete clinical audit cycle including development of conclusions, the changes needed for improvement, implementation of findings and re-audit to assess the effectiveness of the changes • Seeks opportunity to visit other departments and learn from other professionals	**Area 1.3** **Area 1.3**		

	Professional Behaviour and Leadership	Mapping to Leadership Curriculum	Assessment technique	Areas in which simulation should be used to develop relevant skills
Sub-category:	**Manager** including • Self Awareness and self management (GMP Domains: 1) • Team-working (GMP Domains: 1, 3) • Leadership (GMP Domains: 1, 2, 3) • Principles of quality and safety improvement (GMP Domains: 1, 3, 4) • Management and NHS structure (GMP Domains: 1)	**Area 1.1 and 1.2** **Area 2** **Area 4.2, 4.3, 4.4** **Area 3**		
Objective	**Self awareness and self management** • To recognise and articulate one's own values and principles, appreciating how these may differ from those of others • To identify one's own strengths, limitations and the impact of their behaviour	**Area 1.1 and 1.2**	Mini PAT and CBD	Desirable: Patient safety Human factors

	• To identify their own emotions and prejudices and understand how these can affect their judgement and behaviour • To obtain, value and act on feedback from a variety of sources • To manage the impact of emotions on behaviour and actions • To be reliable in fulfilling responsibilities and commitments to a consistently high standard • To ensure that plans and actions are flexible, and take into account the needs and requirements of others • To plan workload and activities to fulfil work requirements and commitments with regard to their own personal health			
	Team working • To identify opportunities where working with others can bring added benefits • To work well in a variety of different teams and team settings by listening to others, sharing information, seeking the views of others, empathising with others, communicating well, gaining trust, respecting roles and expertise of others, encouraging others, managing differences of opinion, adopting a team approach	**Area 2**	Mini PAT, CBD and Portfolio assessment during ARCP	
	Leadership • To develop the leadership skills necessary to lead teams effectively. These include: • Identification of contexts for change • Application of knowledge and evidence to produce an evidence based challenge to systems and processes • Making decision by integrating values with evidence • Evaluating impact of change and taking corrective action where necessary	**Area 5** **Area 4.2, 4.3 and 4.4**	Mini PAT, CBD and Portfolio assessment during ARCP	
	Principles of quality and safety improvement • To recognise the desirability of monitoring performance, learning from mistakes and adopting no blame culture in order to ensure high standards of care and optimise patient safety • To critically evaluate services • To identify where services can be improved • To support and facilitate innovative service improvement	**Area 3**	Mini PAT, CBD and Portfolio assessment during ARCP	
	Management and NHS culture • To organise a task where several competing priorities may be involved • To actively contribute to plans which achieve service goals • To manage resources effectively and safely • To manage people effectively and safely • To manage performance of themselves and others • To understand the structure of the NHS and the		Mini PAT, CBD and Portfolio assessment during ARCP	

	management of local healthcare systems in order to be able to participate fully in managing healthcare provision			
Knowledge	**Self awareness and self management** • Demonstrate knowledge of ways in which individual behaviours impact on others; • Demonstrate knowledge of personality types, group dynamics, learning styles, leadership styles • Demonstrate knowledge of methods of obtaining feedback from others • Demonstrate knowledge of tools and techniques for managing stress • Demonstrate knowledge of the role and responsibility of occupational health and other support networks • Demonstrate knowledge of the limitations of self professional competence **Team working** • Outline the components of effective collaboration and team working • Demonstrate knowledge of specific techniques and methods that facilitate effective and empathetic communication • Demonstrate knowledge of techniques to facilitate and resolve conflict • Describe the roles and responsibilities of members of the multidisciplinary team • Outline factors adversely affecting a doctor's and team performance and methods to rectify these • Demonstrate knowledge of different leadership styles **Leadership** • Understand the responsibilities of the various Executive Board members and Clinical Directors or leaders • Understand the function and responsibilities of national bodies such as DH, HCC, NICE, NPSA, NCAS; Royal Colleges and Faculties, specialty specific bodies, representative bodies; regulatory bodies; educational and training organisations • Demonstrate knowledge of patient outcome reporting systems within surgery, and the organisation and how these relate to national programmes. • Understand how decisions are made by individuals, teams and the organisation • Understand effective communication strategies within organisations • Demonstrate knowledge of impact mapping of service change, barriers to change, qualitative methods to gather the experience of patients and carers **Quality and safety improvement** • Understand the elements of clinical governance and its relevance to clinical care	**Areas 1.1 and 1.2** **Area 2** **Area 5** **Area 4.2, 4.3, 4.4**		

	• Understands significant event reporting systems relevant to surgery
	• Understands the importance of evidence-based practice in relation to clinical effectiveness
	• Understand risks associated with the surgery including mechanisms to reduce risk
	• Outline the use of patient early warning systems to detect clinical deterioration
	• Keep abreast of national patient safety initiatives including National Patient Safety Agency , NCEPOD reports, NICE guidelines etc
	• Understand quality improvement methodologies including feedback from patients, public and staff
	• Understand the role of audit, research, guidelines and standard setting in improving quality of care
	• Understand methodology of creating solutions for service improvement
	• Understand the implications of change
	
	Management and NHS Structure
	• Understand the guidance given on management and doctors by the GMC
	• Understand the structure of the NHS and its constituent organisation
	• Understand the structure and function of healthcare systems as they apply to surgery
	• Understand the principles of:
	  • Clinical coding
	  • Relevant legislation including Equality and Diversity, Health and Safety, Employment law, European Working Time Regulations
	  • National Service Frameworks
	  • Health regulatory agencies (e.g., NICE, Scottish Government)
	  • NHS Structure and relationships
	  • NHS finance and budgeting
	  • Consultant contract
	  • Commissioning, funding and contracting arrangements
	  • Resource allocation
	  • The role of the independent sector as providers of healthcare
	  • Patient and public involvement processes and role
	  • Understand the principles of recruitment and appointment procedures
	• Understand basic management techniques
		Area 3		

Skills	**Self awareness and self management** • Demonstrate the ability to maintain and routinely practice critical self awareness, including able to discuss strengths and weaknesses with supervisor, recognising external influences and changing behaviour accordingly • Demonstrate the ability to show awareness of and sensitivity to the way in which cultural and religious beliefs affect approaches and decisions, and to respond respectfully	**Area 1.2 and 1.2**		

	• Demonstrate the ability to recognise the manifestations of stress on self and others and know where and when to look for support • Demonstrate the ability to□□alance personal and professional roles and responsibilities, prioritise tasks, having realistic expectations of what can be completed by self and others **Team working** • Preparation of patient lists with clarification of problems and ongoing care plan • Detailed hand over between shifts and areas of care • Communicate effectively in the resolution of conflict, providing feedback • Develop effective working relationships with colleagues within the multidisciplinary team • Demonstrate leadership and management in the following areas: o Education and training of junior colleagues and other members of the team o Deteriorating performance of colleagues (e.g. stress, fatigue) o Effective handover of care between shifts and teams • Lead and participate in interdisciplinary team meetings • Provide appropriate supervision to less experienced colleagues • Timely preparation of tasks which need to be completed to a deadline **Leadership** • Discuss the local, national and UK health priorities and how they impact on the delivery of health care relevant to surgery • Identify trends, future options and strategy relevant to surgery • Compare and benchmark healthcare services • Use a broad range of scientific and policy publications relating to delivering healthcare services • Prepare for meetings by reading agendas, understanding minutes, action points and background research on agenda items • Work collegiately and collaboratively with a wide range of people outside the immediate clinical setting • Evaluate outcomes and re-assess the solutions through research, audit and quality assurance activities • Understand the wider impact of implementing change in healthcare provision and the potential for opportunity costs **Quality and safety improvement** • Adopt strategies to reduce risk e.g. Safe surgery	**Area 2** **Area 5** **Area 4.2, 4.3, 4.4**		

	• Contribute to quality improvement processes e.g.
	  ○ Audit of personal and departmental performance
	  ○ Errors / discrepancy meetings
	  ○ Critical incident and near miss reporting
	  ○ Unit morbidity and mortality meetings
	  ○ Local and national databases
	• Maintenance of a personal portfolio of information and evidence
	• Creatively question existing practise in order to improve service and propose solutions
	
	Management and NHS Structures
	• Manage time and resources effectively
	• Utilise and implement protocols and guidelines
	• Participate in managerial meetings
	• Take an active role in promoting the best use of healthcare resources
	• Work with stakeholders to create and sustain a patient-centred service
	• Employ new technologies appropriately, including information technology
	• Conduct an assessment of the community needs for specific health improvement measures
		Area 3		

Behaviour	**Self awareness and self management** • To adopt a patient-focused approach to decisions that acknowledges the right, values and strengths of patients and the public • To recognise and show respect for diversity and • differences in others • To be conscientious, able to manage time and delegate • To recognise personal health as an important issue **Team working** • Encourage an open environment to foster and explore concerns and issues about the functioning and safety of team working • Recognise limits of own professional competence and only practise within these. • Recognise and respect the skills and expertise of others • Recognise and respect the request for a second opinion • Recognise the importance of induction for new members of a team • Recognise the importance of prompt and accurate information sharing with Primary Care team following hospital discharge **Leadership** • Demonstrate compliance with national guidelines that influence healthcare provision • Articulate strategic ideas and use effective influencing skills • Understand issues and potential solutions before acting	**Area 1.1 and 1.2** **Area 2** **Area 5**		

	• Appreciate the importance of involving the public and communities in developing health services • Participate in decision making processes beyond the immediate clinical care setting • Demonstrate commitment to implementing proven improvements in clinical practice and services • Obtain the evidence base before declaring effectiveness of changes **Quality and safety improvement** • Participate in safety improvement strategies such as critical incident reporting • Develop reflection in order to achieve insight into own professional practice • Demonstrates personal commitment to improve own performance in the light of feedback and assessment • Engage with an open no blame culture • Respond positively to outcomes of audit and quality improvement • Co-operate with changes necessary to improve service quality and safety **Management and NHS Structures** • Recognise the importance of equitable allocation of healthcare resources and of commissioning • Recognise the role of doctors as active participants in healthcare systems • Respond appropriately to health service objectives and targets and take part in the development of services • Recognise the role of patients and carers as active participants in healthcare systems and service planning • Show willingness to improve managerial skills (e.g. management courses) and engage in management of the service	**Area 4.2, 4.3, 4.4** **Area 3**		
Examples and descriptors for Core Surgical Training	**Self awareness and self management** • Obtains 360° feedback as part of an assessment • Participates in peer learning and explores leadership styles and preferences • Timely completion of written clinical notes • Through feedback discusses and reflects on how a personally emotional situation affected communication with another person • Learns from a session on time management **Team working** • Works well within the multidisciplinary team and recognises when assistance is required from the relevant team member • Invites and encourages feedback from patients • Demonstrates awareness of own contribution to patient safety within a team and is able to outline the roles of other team members. • Keeps records up-to-date and legible and relevant to the safe progress of the patient.	**Area 1.1 and 1.2** **Area 2**		

	• Hands over care in a precise, timely and effective manner • Supervises the process of finalising and submitting operating lists to the theatre suite **Leadership** • Complies with clinical governance requirements of organisation • Presents information to clinical and service managers (eg audit) • Contributes to discussions relating to relevant issues e.g. workload, cover arrangements using clear and concise evidence and information **Quality and safety improvement** • Understands that clinical governance is the over-arching framework that unites a range of quality improvement activities • Participates in local governance processes • Maintains personal portfolio • Engages in clinical audit • Questions current systems and processes **Management and NHS Structures** • Participates in audit to improve a clinical service • Works within corporate governance structures • Demonstrates ability to manage others by teaching and mentoring juniors, medical students and others, delegating work effectively, • Highlights areas of potential waste	**Area 5** **Area 4.2, 4.3, 4.4** **Area 3**		

Examples and descriptors for CCT	**Self awareness and self management**
	• Participates in case conferences as part of multidisciplinary and multi agency team
	• Responds to service pressures in a responsible and considered way
	• Liaises with colleagues in the planning and implementation of work rotas
	
	Team working
	• Discusses problems within a team and provides an analysis and plan for change
	• Works well in a variety of different teams
	• Shows the leadership skills necessary to lead the multidisciplinary team
	• Beginning to leads multidisciplinary team meetings
	  ○ Promotes contribution from all team members
	  ○ Fosters an atmosphere of collaboration
	  ○ Ensures that team functioning is maintained at all times.
	  ○ Recognises need for optimal team dynamics
	  ○ Promotes conflict resolution
	• Recognises situations in which others are better equipped to lead or where delegation is appropriate
	
	Leadership
		Area 1.1 and 1.2
		
		Area 2
		
		Area 5		

	• Shadows NHS managers • Attends multi-agency conference • Uses and interprets departments performance data and information to debate services • Participates in clinical committee structures within an organisation **Quality and safety improvement** • Able to define key elements of clinical governance • Demonstrates personal and service performance • Designs audit protocols and completes audit cycle • Identifies areas for improvement and initiates improvement projects • Supports and participates in the implementation of change • Leads in review of patient safety issue • Understands change management **Management and NHS Structure** • Can describe in outline the roles of primary care, including general practice, public health, community, mental health, secondary and tertiary care services within healthcare • Participates fully in clinical coding arrangements and other relevant local activities • Can describe the relationship between PCTs/Health Boards, General Practice and Trusts including relationships with local authorities and social services • Participate in team and clinical directorate meetings including discussions around service development • Discuss the most recent guidance from the relevant health regulatory agencies in relation to the surgical specialty • Describe the local structure for health services and how they relate to regional or devolved administration structures • Discusses funding allocation processes from central government in outline and how that might impact on the local health organisation	**Area 4.2, 4.3, 4.4** **Area 3**		

	Professional Behaviour and Leadership	Mapping to Leadership Curriculum	Assessment technique	**Areas in which simulation should be used to develop relevant skills**
Sub-category:	**Promoting good health** (GMP Domains: 1, 2, 3)			

Objective	• To demonstrate an understanding of the determinants of health and public policy in relation to individual patients • To promote supporting people with long term conditions to self-care • To develop the ability to work with individuals and communities to reduce levels of ill health and to remove inequalities in healthcare provision • To promote self care	N/A	MRCS, specialty FRCS, CBD, Mini PAT	
Knowledge	• Understand guidance documents relevant to the support of self care • Recognises the agencies that can provide care and support out with the hospital • Understand the factors which influence the incidence and prevalence of common conditions including psychological, biological, social, cultural and economic factors • Understand the screening programmes currently available within the UK • Understand the possible positive and negative implications of health promotion activities • Demonstrate knowledge of the determinants of health worldwide and strategies to influence policy relating to health issues • Outline the major causes of global morbidity and mortality and effective, affordable interventions to reduce these			
Skills	• Adapts assessment and management accordingly to the patients social circumstances • Assesses patient's ability to access various services in the health and social system and offers appropriate assistance • Ensures appropriate equipment and devices are discussed and where appropriate puts the patient in touch with the relevant agency • Facilitating access to appropriate training and skills to develop the patients' confidence and competence to self care • Identifies opportunities to promote change in lifestyle and to prevent ill health • Counsels patients appropriately on the benefits and risks of screening and health promotion activities			
Behaviour	• Recognises the impact of long term conditions on the patient, family and friends • Put patients in touch with the relevant agency including the voluntary sector from where they can access support or equipment relevant to their care • Show willingness to maintain a close working relationship with other members of the multi-disciplinary team, primary and community care • Recognise and respect the role of family, friends and carers in the management of the patient with a long term condition • Encourage where appropriate screening to facilitate early intervention			
Examples and	• Understands that "quality of life" is an important goal of care and that this may have different meanings			

descriptors for Core Surgical Training	for each patient • Promotes patient self care and independence • Helps the patient to develop an active understanding of their condition and how they can be involved in self management • Discusses with patients those factors which could influence their health			
Examples and descriptors for CCT	• Demonstrates awareness of management of long term conditions • Develops management plans in partnership with the patient that are pertinent to the patients long term condition • Engages with relevant external agencies to promote improving patient care • Support small groups in a simple health promotion activity • Discuss with small groups the factors that have an influence on their health and describe steps they can undertake to address these • Provide information to an individual about a screening programme offering specific guidance in relation to their personal health and circumstances concerning the factors that would affect the risks and benefits of screening to them as an individual.			

	Professional Behaviour and Leadership	Mapping to Leadership Curriculum	Assessment technique	Areas in which simulation should be used to develop relevant skills
Sub-category:	**Probity and Ethics** To include • Acting with integrity • Medical Error • Medical ethics and confidentiality (GMP Domains: 1, 2, 3, 4) • Medical consent (GMP Domains: 1, 3, 4) • Legal framework for medical practise (GMP Domains: 1, 2, 3)	Area 1.4		
Objective	• To uphold personal, professional ethics and values, taking into account the values of the organisation and the culture and beliefs of individuals • To communicate openly, honestly and inclusively • To act as a positive role model in all aspects of communication • To take appropriate action where ethics and values are compromised • To recognise and respond the causes of medical error • To respond appropriately to complaints • To know, understand and apply appropriately the principles, guidance and laws regarding medical ethics and confidentiality as they apply to surgery • To understand the necessity of obtaining valid consent from the patient and how to obtain • To understand the legal framework within which healthcare is provided in the UK • To recognise, analyse and know how to deal with unprofessional behaviours in clinical practice, taking into account local and national regulations • Understand ethical obligations to patients and colleagues • To appreciate an obligation to be aware of personal good health	Area 1.4	Mini PAT and CBD, PBA, DOPS, MRCS, specialty FRCS	Desirable: Human factors
Knowledge	• Understand local complaints procedure • Recognise factors likely to lead to complaints • Understands the differences between system and individual errors • Outline the principles of an effective apology • Knows and understand the professional, legal and ethical codes of the General Medical Council and any other codes to which the physician is bound • Understands of the principles of medical ethics • Understands the principles of confidentiality • Understands the Data Protection Act and	Area 1.4		

	Freedom of Information Act • Understands the principles of Information Governance and the role of the Caldicott Guardian • Understands the legal framework for patient consent in relation to medical practise • Recognises the factors influencing ethical decision making including religion, personal and moral beliefs, cultural practices • Understands the standards of practice defined by the GMC when deciding to withhold or withdraw life-prolonging treatment • Understands the UK legal framework and GMC guidelines for taking and using informed consent for invasive procedures including issues of patient incapacity			
Skills	• To recognise, analyse and know how to deal with unprofessional behaviours in clinical practice taking into account local and national regulations • To create open and nondiscriminatory professional working relationships with colleagues awareness of the need to prevent bullying and harassment • Contribute to processes whereby complaints are reviewed and learned from • Explains comprehensibly to the patient the events leading up to a medical error or serious untoward incident, and sources of support for patients and their relatives • Deliver an appropriate apology and explanation relating to error • Use and share information with the highest regard for confidentiality both within the team and in relation to patients • Counsel patients, family, carers and advocates tactfully and effectively when making decisions about resuscitation status, and withholding or withdrawing treatment • Present all information to patients (and carers) in a format they understand, checking understanding and allowing time for reflection on the decision to give consent • Provide a balanced view of all care options • Applies the relevant legislation that relates to the health care system in order to guide one's clinical practice including reporting to the Coroner's/Procurator Officer, the Police or the proper officer of the local authority in relevant circumstances • Ability to prepare appropriate medical legal statements for submission to the Coroner's Court, Procurator Fiscal, Fatal Accident Inquiry and other legal proceedings • Be prepared to present such material in Court	Area 1.4 Area 1.4		
Behaviour	• To demonstrate acceptance of professional regulation • To promote professional attitudes and values • To demonstrate probity and the willingness to be truthful and to admit errors • Adopt behaviour likely to prevent causes for	Area 1.4 Area 1.4 Area 1.4		

	complaints • Deals appropriately with concerned or dissatisfied patients or relatives • Recognise the impact of complaints and medical error on staff, patients, and the National Health Service • Contribute to a fair and transparent culture around complaints and errors • Recognise the rights of patients to make a complaint • Identify sources of help and support for patients and yourself when a complaint is made about yourself or a colleague • Show willingness to seek advice of peers, legal bodies, and the GMC in the event of ethical dilemmas over disclosure and confidentiality • Share patient information as appropriate, and taking into account the wishes of the patient • Show willingness to seek the opinion of others when making decisions about resuscitation status, and withholding or withdrawing treatment • Seeks and uses consent from patients for procedures that they are competent to perform while o Respecting the patient's autonomy o Respecting personal, moral or religious beliefs o Not exceeding the scope of authority given by the patient o Not withholding relevant information • Seeks a second opinion, senior opinion, and legal advice in difficult situations of consent or capacity • Show willingness to seek advice from the employer, appropriate legal bodies (including defence societies), and the GMC on medico-legal matters			
Examples and descriptors for Core Surgical Training	• Reports and rectifies an error if it occurs • Participates in significant event audits • Participates in ethics discussions and forums • Apologises to patient for any failure as soon as an error is recognised • Understands and describes the local complaints procedure • Recognises need for honesty in management of complaints • Learns from errors • Respect patients' confidentiality and their autonomy • Understand the Data Protection Act and Freedom of Information Act • Consult appropriately, including the patient, before sharing patient information • Participate in decisions about resuscitation status, withholding or withdrawing treatment • Obtains consent for interventions that he/she is competent to undertake • Knows the limits of their own professional capabilities	Area 1.4 Area 1.4 Area 1.4		

The Assessment System

Assessment and feedback

Overview of the assessment system

The curriculum adopts the following GMC definitions:

Assessment

A systematic procedure for measuring a trainee's progress or level of achievement, against defined criteria to make a judgement about a trainee.

Assessment system

An integrated set of assessments which is in place for the entire postgraduate training programme and which is blueprinted against and supports the approved curriculum.

Purpose of the assessment system

The purpose of the assessment system is to:

- Determine whether trainees are meeting the standards of competence and performance specified at various stages in the curriculum for surgical training.
- Provide systematic and comprehensive feedback as part of the learning cycle.
- Determine whether trainees have acquired the common and specialty-based knowledge, clinical judgement, operative and technical skills, and generic professional behaviour and leadership skills required to practise at the level of Certification in the designated surgical specialty.
- Address all the domains of Good Medical Practice and conform to the principles laid down by the GMC.

Components of the assessment system

The individual components of the assessment system are:

- Workplace-based assessments covering knowledge, clinical judgement, technical skills and professional behaviour and attitudes. These are complemented by the surgical logbook of procedures to support the assessment of operative skills
- Examinations held at key stages; during the early years of training and towards the end of specialty training
- The Learning Agreement and the Assigned Educational Supervisors' report
- An Annual Review of Competence Progression (ARCP)

In order to be included in the assessment system, the assessments methods selected have to meet the following criteria.

- **Valid** - To ensure face validity, the workplace based assessments comprise direct observations of workplace tasks. The complexity of the tasks increases in line with progression through the training programme. To ensure content validity all the assessment instruments have been blueprinted against all the standards of Good Medical Practice.
- **Reliable** - In order to increase reliability, there will be multiple measures of outcomes. ISCP assessments make use of several observers' judgements, multiple assessment methods (triangulation) and take place frequently. The planned, systematic and permanent programme of assessor training for trainers and Assigned Educational Supervisors (AESs) through the postgraduate deaneries/LETBs is intended to gain maximum reliability of placement reports.
- **Feasible** - The practicality of the assessments in the training and working environment has been taken into account. The assessment should not add a significant amount of time to the workplace

task being assessed and assessors should be able to complete the scoring and feedback part of the assessment in 5-10 minutes.

- **Cost-effectiveness** – Once staff have been trained in the assessment process and are familiar with the ISCP website, the only significant additional costs should be any extra time taken for assessments and feedback and the induction of new Assigned Educational Supervisors. The most substantial extra time investment will be in the regular appraisal process for units that did not previously have such a system.
- **Opportunities for feedback** – All the assessments, both those for learning and of learning, include a feedback element. Structured feedback is a fundamental component of high quality assessment and should be incorporated throughout workplace based assessments.
- **Impact on learning** - The workplace-based assessments are all designed to include immediate feedback as part of the process. A minimum number of three appraisals with the AES per clinical placement are built into the training system. The formal examinations all provide limited feedback as part of the summative process. The assessment process thus has a continuous developmental impact on learning. The emphasis given to reflective practice within the portfolio also impacts directly on learning.

Assessment and feedback

Types of assessment

The assessment blueprint and framework

The Overarching Blueprint demonstrates that the curriculum is consistent with the four domains of Good Medical Practice: Knowledge, skills and performance; *Safety and quality; Communication, partnership and teamwork; Maintaining trust*. The specialty-specific syllabuses specify the knowledge, skills and performance required for different stages of training and have patient safety as their principal consideration. The professional behaviour and leadership skills syllabus specifies the standards for patient safety; communication, partnership and team-working and maintaining trust. The standards have been informed by the Academy Common Competency Framework and the Academy and NHS Leadership Competency Framework.

Curriculum assessment runs throughout training as illustrated in the Assessment Framework (PDF: 16kb) and is common to all disciplines of surgery.

Types of assessment

Assessments can be categorised as *for* learning or *of* learning, although there is a link between the two.

Assessment *for* Learning - is primarily aimed at aiding learning through constructive feedback that identifies areas for development. Alternative terms are Formative or Low-stakes assessment. Lower reliability is acceptable for individual assessments as they can and should be repeated frequently. This increases their reliability and helps to document progress. Such assessments are ideally undertaken in the workplace.

Assessments for learning are used in the curriculum as part of a developmental or on-going teaching and learning process and mainly comprise workplace-based assessments. They provide the trainee with educational feedback from skilled clinicians that should result in reflection on practice and an improvement in the quality of care. Assessments are collated in the trainee's learning portfolio. These are regularly reviewed during each placement, providing evidence that inform the judgement of the Assigned Educational Supervisors' (AES) reports to the Training Programme Director and the Annual Review of Competence Progression (ARCP). Assessments for learning therefore contribute to summative judgements of the trainee's progress.

Assessment *of* Learning - is primarily aimed at determining a level of competence to permit progression through training or for certification. Such assessments are undertaken infrequently (e.g. examinations) and must have high reliability as they often form the basis of decisions. Alternative terms are summative or high-stakes assessments [GMC].

Assessments of learning in the curriculum are focussed on the waypoints in the specialty syllabuses. For the most part these comprise the examinations and structured AES end of placement reports which, taken in the round, cover the important elements of the syllabus and ensure that no gaps in achievement are allowed to develop. They are collated at the ARCP panel, which determines progress or otherwise.

The balance between the two assessment approaches principally relates to the relationship between competence and performance. Competence (can do) is necessary but not sufficient for performance (does), and as trainees' experience increases so performance-based assessment in the workplace becomes more important.

Assessment and feedback

Workplace Based Assessment (WBA)

The purpose of WBA

The primary purpose of WBA is to provide short loop feedback between trainers and their trainees – a formative assessment to support learning. They are designed to be mainly trainee driven but may be triggered or guided by the trainer. The number of types and intensity of each type of WPBA in any one assessment cycle will be initially determined by the Learning Agreement fashioned at the beginning of a training placement and regularly reviewed. The intensity may be altered to reflect progression and trainee need. For example a trainee in difficulty would undertake more frequent assessments above an agreed baseline for all trainees. In that sense WPBAs meet the criterion of being adaptive.

WBAs are designed to:

- **Provide feedback to trainers and trainees as part of the learning cycle**

The most important use of the workplace-based assessments is in providing trainees with feedback that informs and develops their practice (formative). Each assessment is completed only for the purpose of providing meaningful feedback on one encounter. The assessments should be viewed as part of a process throughout training, enabling trainees to build on assessor feedback and chart their own progress. Trainees should complete more than the minimum number identified.

- **Provide formative guidance on practice**

Surgical trainees can use different methods to assess themselves against important criteria (especially that of clinical reasoning and decision-making) as they learn and perform practical tasks. The methods also encourage dialogue between the trainee and Assigned Educational Supervisor (AES), Clinical Supervisors (CS) and other trainers.

- **Encompass the assessment of skills, knowledge, behaviour and attitudes during day-to-day surgical practice**

WBA is trainee led; the trainee chooses the timing, the case and assessor under the guidance of the AES via the Learning Agreement. It is the trainee's responsibility to ensure completion of the required number of the agreed type of assessments by the end of each placement.

- **Provide a reference point on which current levels of competence can be compared with those at the end of a particular stage of training**

The primary aim is for trainees to use assessments throughout their training programmes to demonstrate their learning and development. At the start of a level it would be normal for trainees to have some assessments which are less than satisfactory because their performance is not yet at the standard for the completion of that level. In cases where assessments are less than satisfactory, trainees should repeat assessments as often as required to show progress.

- **Inform the AES's (summative) assessment at the completion of each placement**

Although the principal role of WBA is formative, the summary evidence will be used to inform the nnual review process and will contribute to the decision made as to how well the trainee is progressing.

- **Contribute towards a body of evidence held in the trainee's learning portfolio and be made available for the Annual Review of Competence Progression (ARCP)**

At the end of a period of training, the trainee's portfolio will be reviewed. The accumulation of formative assessments will be one of a range of indicators that inform the decision as to satisfactory completion of training at the ARCP.

Guidance on good practice use of the Workplace Based assessments (WBAs)

The assessment methods used are:

- CBD (Case Based Discussion)
- CEX (Clinical Evaluation Exercise)
- PBA (Procedure-based Assessment)
- DOPS (Direct Observation of Procedural Skills in Surgery)
- Multi Source Feedback (Peer Assessment Tool)
- Assessment of Audit
- Observation of Teaching

Assessment of Audit (AoA)

The AoA reviews a trainee's competence in completing an audit. Like all workplace-based assessments, it is intended to support reflective learning through structured feedback. It was adapted for surgery from an instrument originally developed and evaluated by the UK Royal Colleges of Physicians.

The assessment can be undertaken whenever an audit is presented or otherwise submitted for review. It is recommended that more than one assessor takes part in the assessment, and this may be any surgeon with experience appropriate to the process. Assessors do not need any prior knowledge of the trainee or their performance to date, nor do the assessors need to be the trainee's current Assigned Educational Supervisor.

Verbal feedback should be given immediately after the assessment and should take no more than 5 minutes to provide. A summary of the feedback with any action points should be recorded on the Assessment of Audit form and uploaded into the trainee's portfolio.

The Assessment of Audit guidance notes provide a breakdown of competences evaluated by this method.

Case Based Discussion (CBD)

The CBD was originally developed for the Foundation training period and was contextualised to the surgical environment. The method is designed to assess clinical judgement, decision-making and the application of medical knowledge in relation to patient care in cases for which the trainee has been directly responsible. The method is particularly designed to test higher order thinking and synthesis as it allows assessors to explore deeper understanding of how trainees compile, prioritise and apply knowledge. The CBD is not focused on the trainees' ability to make a diagnosis nor is it a viva-style assessment. The CBD should be linked to the trainee's reflective practice.

The CBD process is a structured, in-depth discussion between the trainee and the trainee's assessor (normally the Assigned Educational Supervisor) about how a clinical case was managed by the trainee; talking through what occurred, considerations and reasons for actions. By using clinical cases that offer a challenge to the trainee, rather than routine cases, the trainee is able to explain the complexities involved and the reasoning behind choices they made. It also enables the discussion of the ethical and legal framework of practice. It uses patient records as the basis for dialogue, for systematic assessment and structured feedback. As the actual record is the focus for the discussion, the assessor can also evaluate the quality of record keeping and the presentation of cases.

Most assessments take no longer than 15-20 minutes. After completing the discussion and filling in the assessment form, the assessor should provide immediate feedback to the trainee. Feedback would normally take about 5 minutes.

Clinical Evaluation Exercise (CEX) and Clinical Evaluation Exercise for Consent (CEXC)

The CEX/C is a method of assessing skills essential to the provision of good clinical care and to facilitate feedback. It assesses the trainee's clinical and professional skills on the ward, on ward rounds, in Accident and Emergency or in outpatient clinics. It was designed originally by the American Board of Internal Medicine and was contextualised to the surgical environment.

Trainees will be assessed on different clinical problems that they encounter from within the curriculum in a range of clinical settings. Trainees are encouraged to choose a different assessor for each assessment but one of the assessors must be the trainee's current Assigned Educational Supervisor. Each assessor must have expertise in the clinical problem.

The assessment involves observing the trainee interact with a patient in a clinical encounter. The areas of competence covered include: consent (CEXC), history taking, physical examination, professionalism, clinical judgement, communication skills, organisation/efficiency and overall clinical care. Most encounters should take between 15-20 minutes.

Assessors do not need to have prior knowledge of the trainee. The assessor's evaluation is recorded on a structured form that enables the assessor to provide developmental verbal feedback to the trainee immediately after the encounter. Feedback would normally take about 5 minutes.

Direct Observation of Procedural Skills (DOPS)

The DOPS is used to assess the trainee's technical, operative and professional skills in a range of basic diagnostic and interventional procedures, or parts of procedures, during routine surgical practice in order to facilitate developmental feedback. The method is a surgical version of an assessment tool originally developed and evaluated by the UK Royal Colleges of Physicians.

The DOPS is used in simpler environments and can take place in wards or outpatient clinics as well as in the operating theatre. DOPS is set at the standard for Core Surgical Training (CT1/ST1 and CT2/ST2) although some specialties may also use specialty level DOPS in higher specialty training.

The DOPS form can be used routinely every time the trainer supervises a trainee carrying out one of the specified procedures, with the aim of making the assessment part of routine surgical training practice. The procedures reflect the index procedures in each specialty syllabus which are routinely carried out in the trainees' workplace.

The assessment involves an assessor observing the trainee perform a practical procedure within the workplace. Assessors do not need to have prior knowledge of the trainee. The assessor's evaluation is recorded on a structured form that enables the assessor to provide verbal developmental feedback to the trainee immediately afterwards. Trainees are encouraged to choose a different assessor for each assessment but one of the assessors must be the current Assigned Educational Supervisor. Most procedures take no longer than 15-20 minutes. The assessor will provide immediate feedback to the trainee after completing the observation and evaluation. Feedback would normally take about 5 minutes.

The DOPS form is completed for the purpose of providing feedback to the trainee. The overall rating on any one assessment can only be completed if the entire procedure is observed. A judgement will be made on completion of the placement about the overall level of performance achieved in each of the assessed surgical procedures

Multi-Source Feedback (MSF)

Surgical trainees work as part of a multi-professional team with other people who have complementary skills. Trainees are expected to understand the range of roles and expertise of team members in order to communicate effectively to achieve high quality service for patients. The MSF, also known as peer and 360° assessment, is a method of assessing professional competence within a team-working environment and providing developmental feedback to the trainee.

Trainees should complete the MSF once a year. The trainee's Assigned Educational Supervisor (AES) may request further assessments if there are areas of concern at any time during training.

The MSF comprises a self-assessment and assessments of a trainee's performance from a range of co-workers. It uses up to 12 raters with a minimum of 8. Raters are chosen by the trainee and will always include the AES and a range of colleagues covering different grades and environments (e.g. ward, theatre, outpatients) but not patients.

The MSF process should be started in time for raters to submit their online assessments and the generation of the trainee's personalised feedback for discussion with the AES before the end of the placement, and for a further MSF to be performed before the end of the training year, if required. The MSF should, therefore, be undertaken:

- in the 3rd month of the first four-month placement in a training year
- in the 5th month of the first six-month placement in a training year
- in the 5th month of a one-year placement

The competences map across to the standards of Good Medical Practice and to the core objectives of the ISCP. The method enables serious concerns, such as those about a trainee's probity and health, to be highlighted in confidence to the AES, enabling appropriate action to be taken.

Feedback is in the form of a peer assessment chart that enables comparison of the self-assessment with the collated views received from co-workers for each of the 16 competences including a global rating, on a 3-point scale. Trainees are not given access to individual assessments, however, raters' written comments are listed verbatim. The AES should meet with the trainee to discuss the feedback on performance in the MSF. The AES makes comments and signs off the trainee's MSF assessment and can also recommend a repeat MSF.

Observation of Teaching (OoT)

The OoT provides formative feedback to trainees as part of the on-going culture of reflective learning that workplace-based assessment seeks to develop. It was adapted from the Teaching Observation Tool developed by the Joint Royal Colleges of Physicians' Training Board (JRCPTB) for use in surgery. It assesses instances of formal teaching delivered by the trainee as and when they arise.

The form is intended for used when teaching by a trainee is directly observed by the assessor. This must be in a formal situation where others are gathered specifically to learn from the speaker, and does not include bedside teaching or other occasions of teaching in the presence of a patient. Assessors may be any surgeon with suitable experience to review the teaching event; it is likely that these will be consultants for trainees in higher specialty levels.

Possible areas for consideration to aid assessment and evaluation are included in the guidance notes below. It should be noted that these are suggestions for when considering comments and observations rather than mandatory competences.

Procedure Based Assessment

The PBA assesses the trainee's technical, operative and professional skills in a range of specialty procedures or parts of procedures during routine surgical practice up to the level of certification. PBAs provide a framework to assess practice and facilitate feedback in order to direct learning. The PBA was originally developed by the Orthopaedic Competence Assessment Project (OCAP) for Trauma and Orthopaedic surgery and was further developed by the Specialty Advisory Committees for surgery for use in all the surgical specialties.

The assessment method uses two principal components:

- A series of competences within 5 domains. Most of the competences are common to all procedures, but a relatively small number of competences within certain domains are specific to a particular procedure.
- A global assessment that is divided into 8 levels of global rating. The highest rating is the ability to perform the procedure to the standard expected of a specialist in practice within the NHS (the level required for certification or equivalent).

The assessment form is supported by a worksheet consisting of descriptors outlining desirable and undesirable behaviours that assist the assessor in deciding whether or not the trainee has reached a satisfactory standard for certification, on the occasion observed, or requires development.

The procedures chosen should be representative of those that the trainee would normally carry out at that training level and will be one of an indicative list of index procedures relevant to the specialty. The trainee generally chooses the timing and makes the arrangements with the assessor. The assessor will normally be the trainee's, Clinical Supervisor or another surgical consultant trainer. One of the assessors must be the trainee's current Assigned Educational Supervisor. Some PBAs may be assessed by senior trainees depending upon their level of training and the complexity of the procedure. Trainees are encouraged to request assessments on as many procedures as possible with a range of different assessors.

Assessors do not need to have prior knowledge of the trainee. The assessor will observe the trainee undertaking the agreed sections of the PBA in the normal course of workplace activity (usually scrubbed). Given the priority of patient care, the assessor must choose the appropriate level of supervision depending on the trainee's stage of training. Trainees will carry out the procedure, explaining what they intend to do throughout. The assessor will provide verbal prompts, if required, and intervene if patient safety is at risk.

The practicalities of Workplace Based Assessment

Introduction

'I have no time to do this'

The clips located here are intended to illustrate the utility and versatility of the work based assessment tools (WPBA). They show that no more than ten minutes are required for any of these tools to be used meaningfully. They can be undertaken as a planned or as an opportunistic exercise. Any interaction with a trainee and trainer can be converted into a learning opportunity and then be evidenced for the benefit of the trainee and trainer as a WPBA.

The primary purpose of workplace-based assessments is for learning through constructive short loop feedback between trainers and their trainees that identifies areas for development. Collectively they are used as part of the Annual Review of Competence Progression (ARCP) which is a summative process. However, individually the tools are designed to develop trainees and are formative assessment tools which can:

- Trigger conversations between trainee and trainer;
- Enable observation and discussion of clinical practice;
- Record good practice and outline areas for development of knowledge, skills, judgement and professional behaviour;
- Formulate action plans for development;
- Enable trainees to analyse pattern recognition.

The tools are **not** intended to:

- Score trainees;
- Summate progress globally;
- Predict future performance;
- Be completed without a face to face feedback conversation.

These assessments can be divided into:

1. Observational tools

The purpose of the CEX, DOPS and PBA tools is to encourage trainee practice within a supported environment, followed by a developmental conversation (feedback) to identify elements of good practice and areas for development. Such development should be discussed in terms of follow up actions that will extend the trainee's technical proficiency and clinical skills.

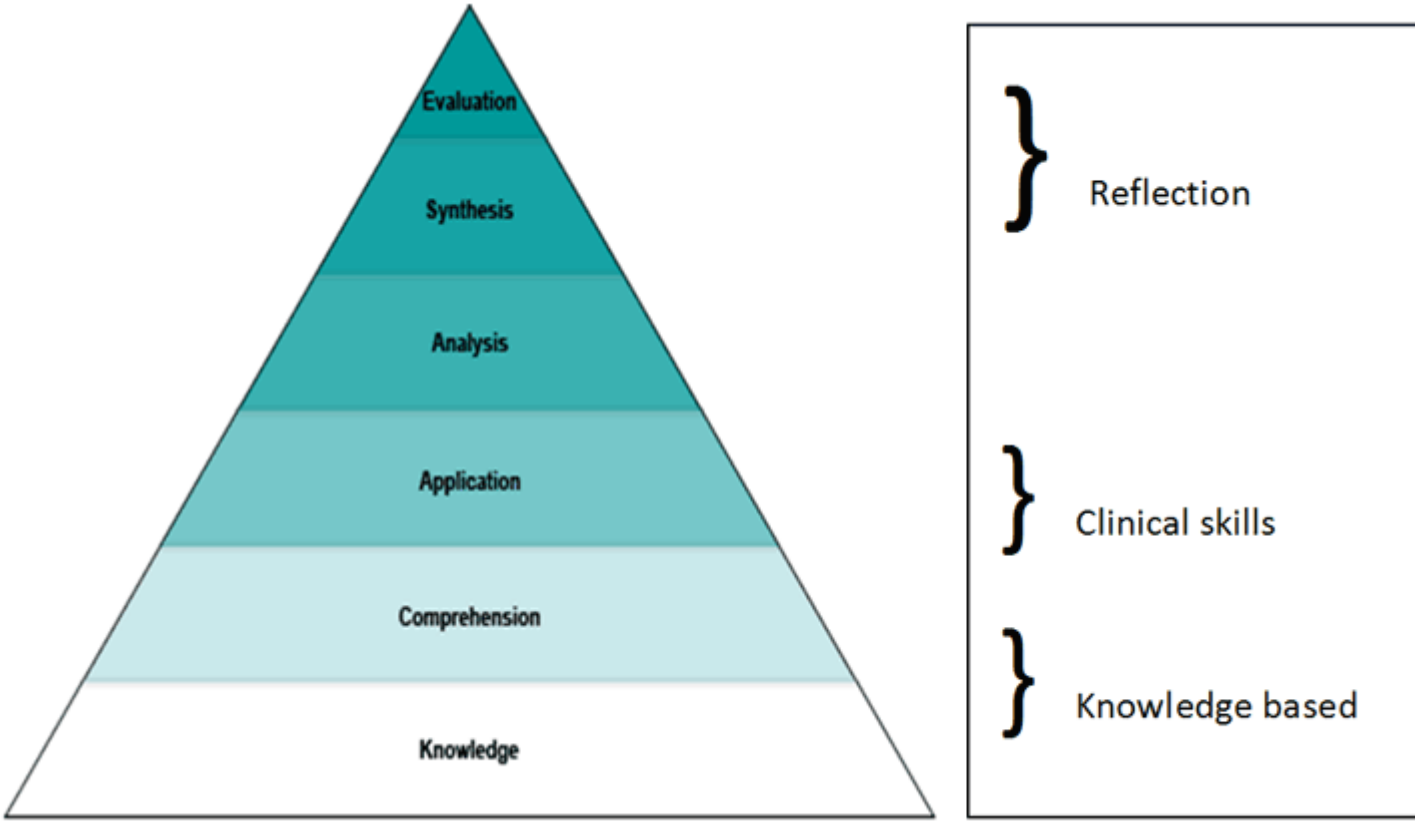
2. Discussion tools

The CBD can record any conversation that reviews a trainee's practice or their thoughts about practice. From an office based, time protected tutorial to the short conversation that happens in the theatre coffee room, or even the corridor, a CBD allows trainers to explore the thinking of their trainees, and to share understanding and professional thinking.

CBDs focus on knowledge and understanding and occur at different levels of Bloom's taxonomy (see figure below). A CBD that looks at knowledge addresses the knowledge base of the trainee e.g. a trainee might be asked for the classification of shock. The trainer could take the discussion beyond the classification to look at how that knowledge relates to the understanding of the patient's condition and the symptoms manifested by the patient. Application relates to the use of knowledge and understanding in practice and so the trainee may be asked to consider the possible treatment options for that patient. Analysis and synthesis are higher order levels of the thinking or cognitive function and CBDs that look at a situation reflectively, to break it down and consider what elements helped or hindered patient care, can be invaluable to trainees in reviewing and making sense of their experiences and in extending their critical thinking. At the evaluation level trainees

may well be engaging in discussions that relate to service improvement and changes in practice at a group level rather than an individual one.

Blooms Taxonomy



3. Insight tools

The Multi Source Feedback collects the trainee's self-assessment together with the subjective views of the trainee from a specified range of colleagues (consultants, specialty doctors, senior nurses and other healthcare providers.) The benefit of the MSF lies in the conversation between trainer and trainee to review and discuss the overview of the collated comments.

Practicalities

Trainers are under the pressure of training multiple trainees all at differing levels of competence and therefore with different training needs. EWTR and the constraints of managing a service as well as training require that we use our time smarter rather than working longer hours for both trainees and trainers. One educational opportunity whether in an operating theatre, on call or in a clinic can be developed into a targeted learning opportunity for individual but also multiple trainees.

The following videos will demonstrate how one case can:

1. allow targeted learning for multiple trainees
2. be alongside our normal surgical practice
3. make use of wastage time during our surgical practice
4. produce multiple items of evidence of trainee development for their portfolio

Each scenario demonstrated ensures that:

1. **Although the trainer facilitates the discussion, the recording of the case is undertaken by the trainee**
2. **Each discussion concludes with an action plan that tasks the trainee with further development**

Observational Tools

The purpose of the CEX, DOPS and PBA tools is to encourage trainee practice within a supported environment, followed by a developmental conversation (feedback) to identify elements of good practice and areas for development. Such development should be discussed in terms of follow up actions that will extend the trainee's technical proficiency and clinical skills.

The following clips demonstrate the versatility of surgical practice. An operation can be divided into several stages all of which can be used to develop trainees at differing levels of competence as well as developing teaching and training skills in the more senior trainees. The clips also demonstrate the use of DOPS and PBAs within a surgical team.

PBA/DOPS

Here a consultant is asked to provide feedback to two trainees on their DOPS (insertion of a catheter) and a PBA (laparoscopic port insertion) before the procedure begins and so this is trainee triggered. It is also possible that a list is designated as a training list and therefore all cases can be used in this way. It is important that trainees or trainers request that such tools be used prior to the procedure. DOPS, PBAs and CEXs are all observational tools and so if the observer is not aware that they are required to observe and provide feedback until after the event the quality of the observation and feedback will be compromised. Note that the consultant requested that the forms be available for her to use whilst observing and providing feedback to the trainees. This is to guide her in her evaluation and also to record comments for the trainees to document subsequently on the ISCP web-based forms.

The following clips are the discussions that occur in the coffee room after completing a laparoscopic cholecystectomy for a FY2, CTI and ST3.

Discussion Tools

The CBD can record any conversation that reviews a trainee's practice or their thoughts about practice. From an office based, time protected tutorial to the short conversation that happens in the theatre coffee room, or even the corridor, CBD allows trainers to explore the thinking of their trainees, and to share understanding and professional thinking.

CBDs that look at information are addressing the knowledge base of the trainee. This may be asking trainees for the classification of shock. A trainer could take the discussion beyond the classification to look at how that knowledge relates to the understanding of the patient's condition and the symptoms manifested by the patient. Application relates to the use of knowledge and understanding in practice and so the trainee may be asked to consider the possible treatment options for that patient. Analysis and synthesis are higher order levels of the thinking or cognitive function and CBDs that look at a situation reflectively, to break it down and consider what elements helped or hindered patient care, can be invaluable to trainees in reviewing and making sense of their experiences and in extending their critical thinking. At the evaluation level trainees may well be engaging in discussions that relate to service improvement and changes in practice at a group level rather than an individual one.

In the clips we see three CBDs focusing on the same case. The first looks at the knowledge base underpinning the case. The second looks at the clinical skills used by a CT2 - that is the application of knowledge and understanding. The third one looks at Reflection by the registrar involved in the case.

Overall Summary of case

A 23 year old man had arrived in Accident and Emergency (A&E) after being involved in a road traffic accident (RTA). He had been riding a bike and had been hit from the left hand side by a car, had got up and was shaken but sore. He was brought to A&E by ambulance and triaged by A&E. He was seen three hours later by the A&E SHO and fast tracked to SAU by a surgical CT1 at handover time. The incoming CT2 flagged him up as a case that should be reviewed by the Registrar on call. The CT2 had seen the patient in SAU as he had been transferred. Suspicious of a splenic injury with the clinical findings, he had requested a CT scan. The CT scan was carried out and was not reported for several hours. The patient was stable and so there was no real urgency but was discussed in the corridor with the consultant on call who had been angered by the clinical scenario and requested that the report be made readily available. The ST3 was busy on call and asked the CT2 to chase the report. Finally the scan result was available at 6pm just as the patient deteriorated and the ST3/ST5 was called urgently as blood pressure was falling. The patient needed urgent review and theatre that evening for a splenectomy. The procedure was carried out by an ST5 with consultant supervision.

Insight Tools

The Multi Source Feedback collects the trainee's self-assessment together with subjective views of the trainee from a specified range of colleagues (consultants, specialty doctors, senior nurses and other Health care providers.) The benefit of the MSF lies in the conversation between trainer and trainee to review and discuss the overview of the collated comments.

The Multi Source Feedback (previously known as Mini PAT) tool is used to provide a 360 degree range of feedback across a spectrum of professional domains which are closely related to the GMC duties of a good doctor. Trainees fill in their self-rating form and they ask a range of people for their ratings too, anonymously. When the data are collated electronically the Assigned Educational Supervisor will meet with the trainee to discuss the overview of the data.

The following two clips show two trainees, (played by the same actor) discussing their feedback with their Assigned Educational Supervisor.

In both clips the AES approaches the conversation in a similar way, explaining what she would like to discuss and then looking first at the strengths of the trainee and where these correlate to the strengths perceived by the other raters, before moving on to any developmental areas and finally compiling an action plan for further development.

Examinations

Examinations are held at two key stages: during initial training and towards the end of specialty training.

MRCS

The Membership Examination of the Surgical Royal Colleges of Great Britain and in Ireland (MRCS) is designed for candidates in the generality part of their specialty training. The purpose of the MRCS is to determine that trainees have acquired the knowledge, skills and attributes required for the completion of core training in surgery and, for trainees following the Intercollegiate Surgical Curriculum Programme, to determine their ability to progress to higher specialist training in surgery.
The MRCS examination has two parts: Part A (written paper) and Part B Objective Structured Clinical Examination (OSCE).

Part A (written paper)

Part A of the MRCS is a machine-marked, written examination using multiple-choice Single Best Answer and Extended Matching items. It is a four hour examination consisting of two papers, each of two hours' duration, taken on the same day. The papers cover generic surgical sciences and applied knowledge, including the core knowledge required in all surgical specialties as follows:

Paper 1 - Applied Basic Science
Paper 2 - Principles of Surgery-in-General

The marks for both papers are combined to give a total mark for Part A. To achieve a pass the candidate is required to demonstrate a minimum level of knowledge in each of the two papers in addition to achieving or exceeding the pass mark set for the combined total mark for Part A.

Part B (OSCE)

The Part B (OSCE) integrates basic surgical scientific knowledge and its application to clinical surgery. The purpose of the OSCE is to build on the test of knowledge encompassed in the Part A examination and test how candidates integrate their knowledge and apply it in clinically appropriate contexts using a series of stations reflecting elements of day-to-day clinical practice.

Further information can be obtained from www.intercollegiatemrcsexams.org.uk

DO-HNS and MRCS(ENT)

Otolaryngology trainees at CT1/2 level in ENT themed core surgical training posts should undertake Part A of the MRCS and the Part 2 (OSCE) of the Diploma in Otolaryngology – Head and Neck Surgery (DO-HNS) in order to acquire the Intercollegiate MRCS(ENT) Diploma. From August 2013, the MRCS(ENT) examination will be a formal exit requirement from Core Surgical Training for Otolaryngology trainees. It is also a mandatory requirement for entry into higher specialty training in ENT. The DO-HNS examination exists as a separate entity but is not a requirement for ST3 unless paired with the MRCS as explained above.

The purpose of the Diploma in Otolaryngology – Head and Neck Surgery (DO-HNS) is to test the breadth of knowledge, the clinical and communication skills and the professional attributes considered appropriate by the Colleges for a doctor intending to undertake practice within an otolaryngology department in a trainee position. It is also intended to provide a test for those who wish to practise within another medical specialty, but have an interest in the areas where that specialty interacts with the field of otolaryngology. It is also relevant for General Practitioners wishing to offer a service in minor ENT surgery.

FRCS

The Intercollegiate Specialty Examination (FRCS) is a summative assessment in each of the ten surgical specialties. It is a mandatory requirement for certification and entry to the Specialist Register. It forms part of

the overall assessment system for UK and Irish surgical trainees who have participated in a formal surgical training programme leading to UK certification or a Certificate of Eligibility for Specialist Registration via the Combined Programme (CESR CP) or, in the Republic of Ireland, a Certificate of Completion of Specialist Training (CCST).

Section 1 is a written test composed of two Multiple Choice Questions papers; Paper 1: Single Best Answer [SBA] and Paper 2: Extended Matching Items [EMI]. Candidates must meet the required standard in Section 1 in order to gain eligibility to proceed to Section 2.

Section 2 is the clinical component of the examination. It consists of a series of carefully designed and structured interviews on clinical topics, some being scenario-based and some being patient-based. Further information can be obtained from www.intercollegiate.org.uk

Feedback

All the assessments in the curriculum, both those *for* learning and *of* learning, include a feedback element. Workplace based assessments are designed to include immediate feedback for learning as part of two-way dialogue towards improving practice. Formal examinations provide limited feedback as part of the summative process. Assigned Educational Supervisors are able to provide further feedback to each of their trainees through the regular planned educational review and appraisal that features at the beginning, middle and end of each placement. Feedback is based on the evidence contained in the portfolio.

Educational feedback:

- Enhances the validity of the assessment and ensures trainees receive constructive criticism on their performance.
- Is given by skilled clinicians, thereby enhancing the learning process.

Constructive formative feedback should include three elements:

- An outline of the strengths the trainee displayed,
- Suggestions for development,
- Action plan for improvement.

Feedback is complemented by the trainee's reflection on his/her practice with the aim of improving the quality of care.

The Annual Review of Competence Progression (ARCP)

Purpose of the ARCP (adapted from the Gold Guide):

The ARCP is a formal Deanery/LETB process which scrutinises each surgical trainee's suitability to progress to the next stage of, or complete, the training programme. It follows on from the appraisal process and bases its recommendations on the evidence that has been gathered in the trainee's learning portfolio during the period between ARCP reviews. The ARCP records that the required curriculum competences and experience are being acquired, and that this is at an appropriate rate. It also provides a coherent record of a trainee's progress. The ARCP is not in itself an assessment exercise of clinical or professional competence.

The ARCP should normally be undertaken on at least an annual basis for all trainees in surgical training. Some Deaneries/Local Education and Training Boards (LETBs) plan to arrange two ARCPs each year in the early years of training. An ARCP panel may be convened more frequently if there is a need to deal with progression issues outside the normal schedule.

The surgical Specialty Advisory Committees (SACs) use the opportunity afforded, through their regional Liaison Member on the panel, to monitor the quality of training being delivered by the programme and/or its components.

Further information on this process can be found in the Reference Guide to Postgraduate Specialty Training in the UK.

Preparation for the ARCP

The trainee's learning portfolio provides the evidence of progress. It is the trainee's responsibility to ensure that the documentary evidence is complete in good time for the ARCP.

The SAC representatives on ARCP Panels will monitor trainees' progress throughout their training to assess whether they are on course to obtain certification or a Certificate of Eligibility for Specialist Registration via a Combine Programme; CESR(CP). Particular attention will be paid in the final two years of training to ensure that any remedial action can be taken, if necessary, to enable individual trainees to successfully complete their training.

The ARCP Panel

Please note that during the time of the panel meeting, members of an ARCP panel will have access to the portfolios of the trainees they review. Panel members are appointed by the Deanery/LETB and are likely to include the following:

- Postgraduate Dean / Associate Director / Associate Dean
- Training Programme Director
- Chair of the Specialty Training Committee
- College/Faculty representatives (e.g. liaison member from the surgical specialty SAC)
- Assigned Educational Supervisors (who have not been directly responsible for the trainee's placements)
- Associate Directors/Deans
- Academic representatives (for academic programmes, who have not been directly responsible for the trainee's placements)
- A representative from an employing authority
- Lay/patient representative
- External trainer
- Representative from an employing organisation

ARCP Outcomes

The ARCP panel will make one of the following recommendations about each trainee based on the evidence put before them:

Satisfactory progress

1. Achieving progress and competences at the expected rate

Unsatisfactory progress

2. Development of specific competences required – additional training time not required
3. Inadequate progress by the trainee – additional training time required
4. Released from training programme with or without specified competences

Insufficient evidence

5. Incomplete evidence presented – additional training time may be required

Recommendation for completion of the training programme (core or higher)

6. Gained all required competences for the programme

(Similar outcomes are made for those in Locum Appointment for Training (LAT) / Fixed-term Specialty Training Appointment (FTSTA) / Out of programme (OOP) and Top-up training).

The training system

Roles and responsibilities

Schools of Surgery/LETBs/Deaneries

Schools of Surgery or their equivalent have been created nationally within each Postgraduate Medical Deanery and/or Local Education and Training Board (LETB) and the Scottish Surgical Specialties Training Board (SSSTB) within NHS Education for Scotland (NES). They provide the structure for educational, corporate and financial governance and co-ordinate the educational, organisational and quality management activities of surgical training programmes. The Schools draw together the representatives and resources of Deaneries/LETBs/SSTB, JCST, trusts, NHS service providers and other relevant stakeholders in postgraduate medical education and training. They ensure the implementation of curricula and assessment methodologies with associated training requirements for educational supervision. In the Republic of Ireland, these roles are undertaken by the Medical Council, HSE National Doctors Training and Planning (NDTP) and the Royal College of Surgeons in Ireland (RCSI).

Who is Involved in training?

The key roles involved in teaching and learning are Training Programme director (TPD), Assigned Educational Supervisor (AES), Clinical Supervisor (CS), Assessor and Trainee.

Training Programme Director

The majority of Training Programme Directors (TPDs) manage specialty programmes; there are, however, a number TPDs who manage Core Surgical Training programmes TPD (CST).

TPDs are responsible for:

- Organising, managing and directing the training programmes, ensuring that the programmes meet curriculum requirements;
- Identifying and supporting local faculty (i.e. AES, CS) including organising their induction and training where necessary;
- Overseeing progress of individual trainees through the levels of the curriculum; ensuring that appropriate levels of supervision, training and support are in place;
- Helping the Postgraduate Dean and AES manage trainees who are running into difficulties by identifying remedial placements and resources where required;
- Working with delegated Specialty Advisory Committee (SAC) representatives (SAC Liaison Members) and College representatives (e.g. college tutors) to ensure that programmes deliver the specialty curriculum;
- Ensuring that Deanery/LETB administrative support are knowledgeable about curriculum delivery and are able to work with SACs, trainees and trainers;
- Administering and chairing the Annual Review of Competence Progression meetings (ARCP).

Assigned Educational Supervisor

Educational supervision is a fundamental conduit for delivering teaching and training in the NHS. It takes advantage of the experience, knowledge and skills of expert clinicians / consultant trainers and their familiarity with clinical situations. It ensures interaction between an experienced clinician and a trainee. This is the desired link between the past and the future of surgical practice, to guide and steer the learning process of the trainee. Clinical supervision is also vital to ensure patient safety and the high quality service of trainees. The curriculum requires trainees reaching the end of their training to demonstrate competence in clinical supervision before Certification. The Joint Committee on Surgical Training (JCST) also acknowledges that the process of gaining competence in supervision must start at an early stage in training with trainees supervising more junior trainees. The example set by the educational supervisor is the most powerful influence upon the standards of conduct and practice of a trainee.

In the UK, the GMC's plan for recognition and approval of trainers will take full effect from 31 July 2016. In addition to the GMC's statutory requirements for approval of GP trainers, postgraduate deans and medical schools will formally recognise medical trainers who are named Assigned Educational Supervisors and named Clinical Supervisors.

The Assigned Educational Supervisor (AES) is responsible for between 1 and 4 trainees at any time. The number will depend on factors such as the size of the unit and the availability of support such as a Clinical Supervisors (CSs) or Clinical Tutors (CTs). The role of the Assigned Educational Supervisor is to:

- Have overall educational and supervisory responsibility for the trainee in a given placement;
- Ensure that an induction to the unit (where appropriate) has been carried out;
- 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 that the trainee has appropriate day-to-day supervision appropriate to their stage of training;
- Act as a mentor to the trainee and help with both professional and personal development;
- Agree a Learning Agreement, setting, agreeing, recording and monitoring the content and educational objectives of the placement;
- Discuss the trainee's progress with each trainer with whom a trainee spends a period of training and involve them in the formal report to the annual review process;
- Undertake regular formative/supportive appraisals with the trainee (typically one at the beginning, middle and end of a placement) and ensure that both parties agree to the outcome of these sessions and keep a written record;
- Ensure a record is kept in the portfolio of any serious incidents for concerns and how they have been resolved;
- Regularly inspect the trainee's learning portfolio and ensure that the trainee is making the necessary clinical and educational progress;
- Inform trainees of their progress and encourage trainees to discuss any deficiencies in the training programme, ensuring that records of such discussions are kept;
- Ensure patient safety in relation to trainee performance by the early recognition and management of those doctors in distress or difficulty;
- Keep the Training Programme Director informed of any significant problems that may affect the trainee's training;
- Provide an end of placement AES report for the Annual Review of Competence Progression (ARCP).

In order to become an AES, a trainer must be familiar with the curriculum and have a demonstrated an interest and ability in teaching, training, assessing and appraising. They must have appropriate access to teaching resources and time for training allocated to their job plan (approx. 0.25 PA per trainee). AESs must have undertaken training in a relevant Training the Trainers course/programme offered by an appropriate educational institution and must keep up-to-date with developments in training. They must have access to the support and advice of their senior colleagues regarding any issues related to teaching and training and to keep up-to-date with their own professional development.

Clinical Supervisor

Clinical supervisors (CS) are responsible for delivering teaching and training under the delegated authority of the AES. They:

- Carry out assessments as requested by the AES or the trainee. This will include delivering feedback to the trainee and validating assessments;
- Ensure patient safety in relation to trainee performance;
- Liaise closely with other colleagues, including the AES, regarding the progress and performance of the trainee with whom they are working during the placement;
- Keep the AES informed of any significant problems that may affect the trainee's training;
- Provide regular CS Reports which contribute to the AES's end of placement report for the ARCP.

The training of CSs should be similar to that of the AES.

Assessor

Assessors will carry out a range of assessments and provide feedback to the trainee and the AES, which will support judgements made about a trainee's overall performance. Assessments during training will usually be carried out by clinical supervisors (consultants) and other members of the surgical team, including (for the MSF). Those who are not medically qualified may also be tasked with this role.

Those carrying out assessments must be appropriately qualified in the relevant professional discipline and trained in the methodology of workplace based assessment (WBA). This does not apply to MSF raters.

Trainee

The trainee is required to take responsibility for his/her learning and to be proactive in initiating appointments to plan, undertake and receive feedback on learning opportunities. The trainee is responsible for ensuring that

- a Learning Agreement is carried out in each placement;
- opportunities to discuss progress are identified;
- assessments are undertaken and validated by assessors in good time;
- evidence is systematically recorded in the learning portfolio.

Teaching

The detail of clinical placements will be determined locally by Training Programme Directors (TPD). In order to provide sufficient teaching and learning opportunities, the placements need to be in units that:

- Are able to provide sufficient clinical resource;
- Have sufficient trainer capacity.

The JCST has developed a series of Quality Indicators (QIs) to help identify good and poor quality training placements. The QIs are measured through the JCST trainee survey.

The PDs and AESs define the parameters of practice and monitor the delivery of training to ensure that the trainee has exposure to:

- A sufficient range and number of cases in which to develop the necessary technical skills (according to the stage of training) and professional judgement (to know when to carry out the procedure and when to seek assistance);
- Managing the care of patients in the case of common conditions that are straightforward, patients who display well known variations to common conditions, and patients with ill-defined problems;
- Detailed feedback.

Development of professional practice can be supported by a wide variety of teaching and learning processes, including role modelling, coaching, mentoring, reflection, and the maximising of both formal and informal opportunities for the development of expertise on the job. Learning opportunities need to be related to changing patterns of healthcare delivery.

The training system

Training roles

Training roles will exist, with minor, locally agreed variation, in all Deaneries/LETBs/Schools and are a requirement of the ISCP.

In accordance with GMC and curriculum standards:

- There must be an adequate number of appropriately qualified and experienced staff in place to deliver an effective training programme.
- Trainers must have the time within their job plan to support the role.
- Subject areas of the curriculum must be taught by staff with relevant specialist expertise and knowledge.
- Individuals undertaking educational roles must undergo a formal programme of training and be subject to regular review.
- Training programmes should include practise exercises covering an understanding of the curriculum, workplace-based assessment methodology and how to give constructive feedback. They should also include equality and diversity training.

The main surgical training roles fall into one of two broad categories:

- Those to do with managing individual trainees (i.e. Clinical Supervisor, Assigned Educational Supervisor, Training Programme Director)
- Those to do with managing the system. Included within these roles would be important aspects such as the provision of common learning resources and quality control of the training being provided. Training Programme Directors would fall into this category.

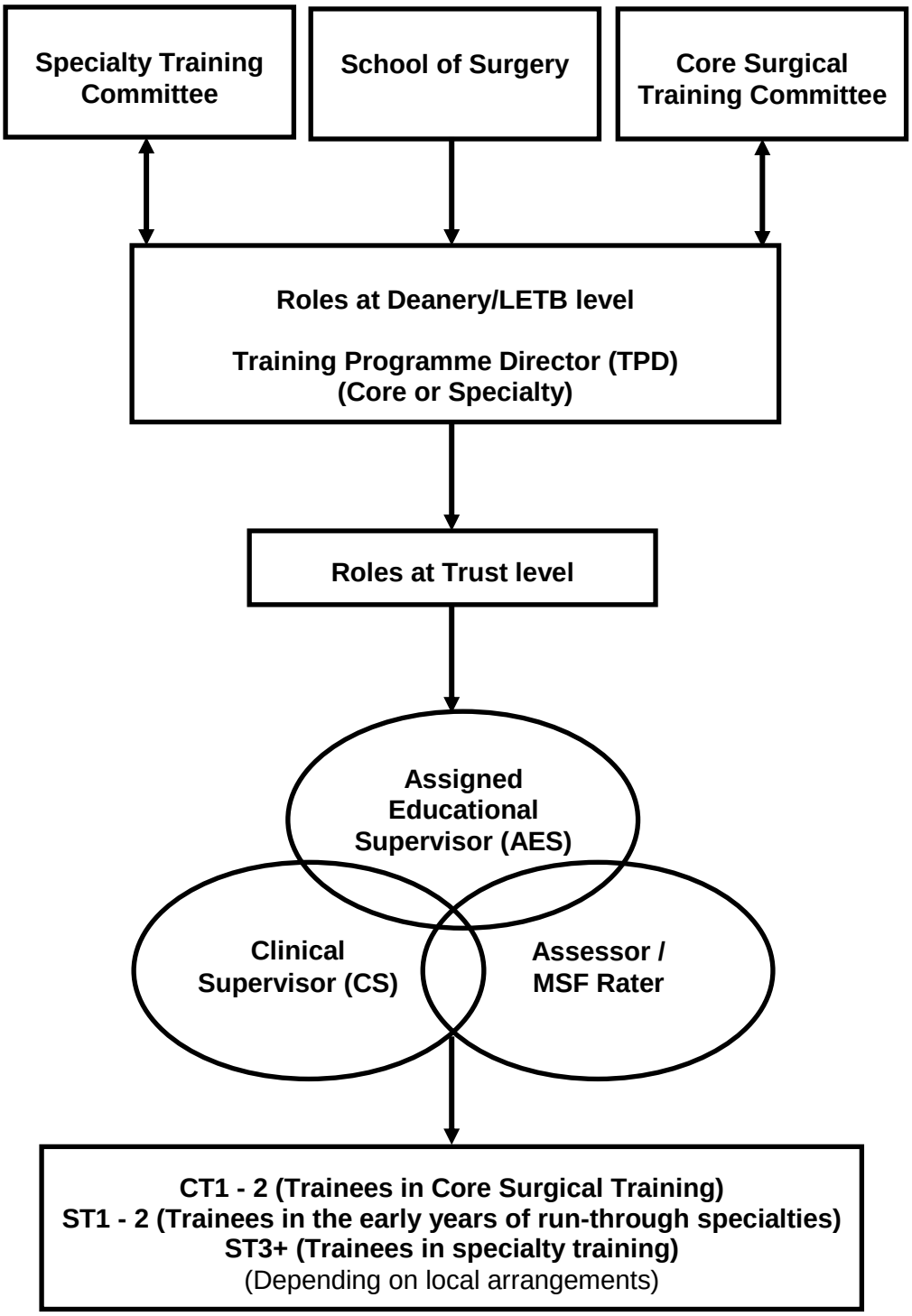
It may be entirely appropriate for a surgeon involved in training to hold more than one role (e.g. Assigned Educational Supervisor, Clinical Supervisor and Assessor) where the workload is manageable and the trainee continues to receive training input from several sources. The role of assessor is not intended to be used as a formal title, but describes a function that will be intrinsic to many of the roles described in the ISCP.

The ISCP requires adherence to a common nomenclature for the trainers who are working directly with the trainee and these are highlighted on the website. These roles are Training Programme Director (core surgical training or specialty training), Assigned Educational Supervisor, Clinical Supervisor, Trainee and Assessor. This is to support the interactive parts of the website, access levels etc. and it is strongly recommended that Deaneries/LETBs use the titles outlined here in the interests of uniformity.

There is great variation in the number of trainees being managed at the various levels within Deaneries/LETBs/Schools of Surgery. This is particularly the case during the early years of training. For this reason, many Deaneries/LETBs will find that the Training Programme Director roles may have to be subdivided. It is recommended that the suffix or prefix ‘deputy’ is used in conjunction with the main title rather than devising a completely new title. This will make clear the general area in which the surgeon is working and should help to avoid confusion.

Wherever possible these roles are harmonised with the Gold Guide but there may be minor variations in nomenclature and tasks that reflect the intercollegiate approach to surgical specialty training.

Training Governance Structure



Multi-professional team

The Training System

Quality assurance of the training system

The General Medical Council (GMC) has overall responsibility for the quality assurance of medical education and training in the UK, as outlined in its Quality Improvement Framework (QIF) but it delegates some responsibility in this respect to the Postgraduate Medical Deaneries and/or Local Education and Training Boards (LETBs) and their Schools of Surgery, the Joint Committee on Surgical Training (JCST) and Local Education Providers (LEPs). In the Republic of Ireland, these roles are undertaken by the Medical Council (MC) and by the Royal College of Surgeons in Ireland (RCSI).

Deaneries and LETBs are responsible for the quality management of training programmes and posts and must implement processes to ensure training within their region meets national standards and is implemented in accordance with the GMC-approved curricula. LEPs deliver training and are responsible for its quality control. In the Republic of Ireland, this is overseen by the MC and the RSCI.

As part of its role in the quality management of surgical training, the JCST has developed its own quality assurance strategy based upon its quality indicators, trainee surveys, Certification Guidelines and the annual specialty report. For more information on the quality assurance of surgical training, please visit the Quality assurance page on the JCST website.

Quality Indicators

- The JCST, in conjunction with the Schools of Surgery, has developed a series of quality indicators (QIs) in order to assess the quality of surgical training placements in each of the surgical specialties and at core level.
- The QIs, which are measured through the JCST trainee survey, enable good and poor quality training placements to be identified so appropriate action may be taken.

The QIs for each surgical specialty and core surgical training are available to download from the JCST Quality Indicators page of the JCST website.

JCST trainee survey

- The JCST launched the trainee survey in November 2011, which was developed in conjunction with the Schools of Surgery.
- The survey is run through the ISCP website and trainees are notified through their ISCP account of when they should complete it. This should be towards the end of each placement and prior to their ARCP.
- Confirmation of completion of all relevant surveys will be part of the evidence assessed at the trainees' ARCP.

For more information on the trainee survey, please visit the JCST Trainee Survey page of the JCST website.

Certification Guidelines

- Each SAC has produced a series of guidelines to identify what trainees applying for Certification will normally be expected to have achieved during their training programme. The guidelines cover such aspects of training as: clinical and operative experience; operative competency; research; quality improvement; and management and leadership.
- Trainees and trainers should use the guidelines to inform decisions about the experiences that trainees need to gain during their 5/6 year programme.
- Trainees will be monitored against the guidelines throughout their training programmes to ensure they are receiving appropriate exposure to all aspects of training.

For more information and to download a copy of the guidelines for each specialty, please visit the Certification Guidelines page of the JCST website.

Annual Specialty Report

The JCST submits an Annual Specialty Report (ASR) to the GMC to provide both a national overview of the status of surgical training and an update on any major developments.

For more information on the ASR, please visit the GMC Quality Improvement Framework (QIF) page.

Teaching and Learning

Principles of surgical education

The balance between didactic teaching and learning in clinical practice will change as the trainee progresses through the training programme, with the former decreasing and the latter increasing.

A number of people from a range of professional groups will be involved in teaching. In accordance with GMC standards, subject areas of the curriculum must be taught by staff with relevant specialist expertise and knowledge. Specialist skills and knowledge are usually taught by consultants and more advanced trainees; whereas the more generic aspects of practice can also be taught by the wider multi-disciplinary team. The Assigned Educational Supervisor (AES) is key as he/she agrees with each trainee how he/she can best achieve his or her learning objectives within a placement.

Establishing a learning partnership creates the professional relationship between the teacher (AES, CS or assessor) and the learner (trainee) that is essential to the success of the teaching and learning programme.

The learning partnership is enhanced when:

- The teacher understands:
    - Educational principles, values and practices and has been appropriately trained;
    - The role of professional behaviour, judgement, leadership and team-working in the trainee's learning process;
    - The specialty component of the curriculum;
    - Assessment theory and methods.
- The learner:
    - Understands how to learn in the clinical practice setting, recognising that everything they see and do is educational;
    - Recognises that although observation has a key role to play in learning, action (doing) is essential;
    - Is able to translate theoretical knowledge into surgical practice and link surgical practice with the relevant theoretical context.
    - Uses reflection to improve and develop practice (see self-directed learning);
- There is on-going dialogue in the clinical setting between teacher and the learner;
- There are adequate resources to provide essential equipment and facilities;
- There is adequate time for teaching and learning.

Trainee-led learning

The ISCP encourages a learning partnership between the trainee and AES in which learning is trainee-led and trainer-guided. Trainees are expected to take a proactive approach to learning and development and towards working as a member of a multi-professional team. Trainees are responsible for:

- Utilising opportunities for learning throughout their training;
- Triggering assessments and appraisal meetings with their trainers, identifying areas for observation and feedback throughout placements;
- Maintaining an up to date learning portfolio;
- Undertaking self and peer assessment;
- Undertaking regular reflective practice.

Learning opportunities

There are many learning opportunities available to trainees to enable them to develop their knowledge, clinical and professional judgement, technical and operative ability and conduct as a member of the profession of surgery. The opportunities broadly divide into three areas:

- Learning from practice otherwise known as learning on-the-job or in the workplace. This can be informal and opportunistic or planned and structured
- Learning from formal situations
- Self-directed learning

Learning from practice

The workplace provides learning opportunities on a daily basis for surgical trainees, based on what they see and what they do. Whilst in the workplace, trainees will be involved in supervised clinical practice, primarily in a hospital environment in wards, clinics or theatre. The trainees' role in these contexts will determine the nature of the learning experience.

Learning will start with observation of a trainer (not necessarily a doctor) and will progress to assisting a trainer; the trainer assisting/supervising the trainee and then the trainee managing a case independently but with access to expert help. The level of supervision will decrease and the level of complexity of cases will increase as trainees become proficient in the appropriate technical skills and are able to demonstrate satisfactory professional judgement. Continuous systematic feedback, both formal and informal, and reflection on practice are integral to learning from practice, and will be assisted by assessments for learning (formative assessment methods) such as surgical Direct Observation of Procedural Skills in Surgery (DOPS), Procedure Based Assessment (PBA), Clinical Evaluation Exercise (CEX) and Case Based Discussion (CBD), each of which has been developed for the purpose.

Trainees are required to keep a surgical logbook to support the assessment of operative skills, using corresponding supervision levels:

Assisting (A):

The trainer completes the procedure from start to finish
The trainee performs the approach and closure of the wound
The trainer performs the key components of the procedure

Supervised - trainer scrubbed (S-TS):

The trainee performs key components of the procedure (as defined in the relevant PBA) with the trainer scrubbed

Supervised - trainer unscrubbed (S-TU):

The trainee completes the procedure from start to finish
The trainer is unscrubbed and is:
- in the operating theatre throughout
- in the operating theatre suite and regularly enters the operating theatre during the procedure (70% of the duration of the procedure)

Performed (P):

The trainee completes the procedure from start to finish
The trainer is present for <70% of the duration of the procedure
The trainer is not in the operating theatre and is:
- scrubbed in the adjacent operating theatre
- not in the operating suite but is in the hospital

Training more junior trainee (T):

A non-consultant grade surgeon training a junior trainee

Observed (O):

Procedure observed by an unscrubbed trainee

In the Workplace – Informal

Surgical learning is largely experiential in its nature with any interaction in the workplace having the potential to become a learning episode. The curriculum encourages trainees to manage their learning and to reflect on practice. Trainees are encouraged to take advantage of clinical cases, audit and the opportunities to shadow peers and consultants.

In the Workplace - Planned and Structured

Theatre (training) lists

Training lists on selected patients enable trainees to develop their surgical skills and experience under supervision. The lists can be carried out in a range of settings, including day case theatres, main theatres endoscopy suites and minor injuries units.

Each surgical procedure can be considered an integrated learning experience and the formative workplace assessments provide feedback to the trainee on all aspects of their performance, from pre-operative planning and preparation, to the procedure itself and subsequent post-operative management.

The syllabus is designed to ensure that teaching is systematic and based on progression. The level of supervision will decrease and the level of complexity of cases will increase as trainees become proficient in the appropriate technical skills and are able to demonstrate satisfactory professional judgement. By Certification time trainees will have acquired the skills and judgement necessary to provide holistic care for patients normally presenting to their specialty and referral to other specialists as appropriate. Feedback on progress is facilitated by the DOPS and PBA.

Clinics (Out Patients)

Trainees build on clinical examination skills developed during the Foundation Programme. There is a progression from observing expert clinical practice in clinics to assessing patients themselves, under direct observation initially and then independently, and presenting their findings to the trainer. Trainees will assess new patients and will review/follow up existing patients.

Feedback on performance will be obtained primarily from the CEX and CBD workplace assessments together with informal feedback from trainers and reflective practice.

Ward Rounds (In Patient)

As in the other areas, trainees will have the opportunity to take responsibility for the care of in-patients appropriate to their level of training and need for supervision. The objective is to develop surgeons as effective communicators both with patients and with other members of the team. This will involve taking consent, adhering to protocols, pre-operative planning and preparation and post-operative management.

Progress will be assessed by MSF, CBD, CEX, DOPS and PBA.

Learning from formal situations

Work based practice is supplemented by an educational programme of courses, local postgraduate teaching sessions arranged by the Specialty Training Committees (STCs) or Schools of Surgery and regional, national and international meetings. Courses have a role at all levels, for example basic surgical skills courses using skills centres and specialty skills programmes. These focus on developing specific skills using models, tissue in skills labs and deceased donors as appropriate and are delivered by the colleges, specialty associations and locally by Deaneries/LETBs.

It is recognised that there is a clear and increasingly prominent role for off the job learning through specific intensive courses to meet specific learning goals. Trainees must show evidence that they have gained competence in the management of trauma through a valid certificate of the Advanced Trauma Life Support (ATLS®), Advanced Paediatric Life Support (APLS) or equivalent, at the completion of core training. In the following specialties, trainees need to show that this certificate of competence is being maintained up to Certification.

- Neurosurgery
- Oral and Maxillofacial Surgery
- Paediatric Surgery (APLS)
- Plastic Surgery
- Trauma and Orthopaedic Surgery

Learning from simulation

Simulation in this context means any reproduction or approximation of a real event, process, or set of conditions or problems e.g. taking a history in clinic, performing a procedure or managing post-operative care. Trainees have the opportunity of learning in the same way as they would in the real situation but in a patient-safe environment. Simulation can be used for the development of both individuals and teams.

Simulation training is often classified as either high or low fidelity. The fidelity of simulation refers to how accurately or closely the simulation resembles the situation being reproduced. The realism of the simulation may reflect the environment in which simulation takes place, the instruments used or the emotional and behavioural features of the real situation. Simulation training does not necessarily depend on the use of expensive equipment or complex environments e.g. it may only require a suturing aid or a role play.

Simulation training has several purposes:

- supporting learning and keeping up to date;
- addressing specific learning needs;
- situational awareness of human factors which can influence people and their behaviour;
- enabling the refining or exploration of practice in a patient-safe environment;
- promoting the development of excellence;
- improving patient care.

The use of simulation in surgical training should be regarded as part of a blended approach to managing teaching and learning concurrent with supervised clinical practice. The use of simulation on its own cannot replace supervised clinical practice and experience or authorise a doctor to practice unsupervised.

Provision of feedback and performance debriefing are integral and essential parts of simulation-based training. Feedback can be assisted by workplace-based assessments and recorded in the learning portfolio. Simulation training should broadly follow the same pattern of learning opportunities offering insight into the development of technical skills, team-working, leadership, judgement and professionalism.

Self-directed learning

Self-directed learning is encouraged. Trainees are encouraged to establish study groups, journal clubs and conduct peer review; there will be opportunities for trainees to learn with peers at a local level through postgraduate teaching and discussion sessions; and nationally with examination preparation courses. Trainees are expected to undertake personal study in addition to formal and informal teaching. This will include using study materials and publications and reflective practice. Trainees are expected to use the developmental feedback they get from their trainers in appraisal meetings and from assessments to focus further research and practice.

Reflective practice is a very important part of self-directed learning and is a vital component of continuing professional development. It is an educational exercise that enables trainees to explore with rigour, the complexities and underpinning elements of their actions in surgical practice in order to refine and improve them.

Reflection in the oral form is very much an activity that surgeons engage in already and find it useful and developmental. Writing reflectively adds more to the oral process by deepening the understanding of surgeons about their practice. Written reflection offers different benefits to oral reflection which include: a record for later review, a reference point to demonstrate development and a starting point for shared discussion.

Some of this time will be taken as study leave. In addition there are the web based learning resources which are on the ISCP website and specialty association websites.

Supervision

In accordance with the requirements of Good Medical Practice, the ultimate responsibility for the quality of patient care and the quality of training lies with the supervisor. Supervision is designed to ensure the safety of the patient by encouraging safe and effective practice and professional conduct. The level of supervision will change in line with the trainee's progression through the stages of the curriculum, enabling trainees to develop independent learning. Those involved in the supervision of trainees must undertake appropriate training.

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

Clinical Supervisors and other trainers must have the relevant qualifications, experience and training to undertake the role. There is an expectation that supervision and feedback are part of the on-going relationship between trainees and their trainers and assessors, and that it will take place informally on a daily basis.

The syllabus content details the level of knowledge, clinical, technical/operative and professional skills expected of a trainee at any given stage of training. The surgical logbook provides a record of the trainee's operative experience and supervision levels corresponding to the operative levels of: *Observed (O); Assisting (A); Supervised - trainer scrubbed (S-TS); Supervised - trainer unscrubbed (S-TU); Performed (P) and Training a more junior trainee (T).*

Trainees must work at a level commensurate with their experience and competence, and this should be explicitly set down by the Assigned Educational Supervisor in the Learning Agreement. There is a gradual reduction in the level of supervision required until the level of competence for independent practice is acquired.

In keeping with Good Medical Practice and Good Clinical Care, trainees have a responsibility to recognise and work within the limits of their professional competence and to consult with colleagues as appropriate. The development of good judgement in clinical practice is a key requirement of the curriculum. The content of the curriculum dealing with professional behaviour emphasises the responsibilities of the trainee to place the well-being and safety of patients above all other considerations. Throughout the curriculum, great emphasis is laid on the development of good judgement and this includes the ability to judge when to seek assistance and advice. Appropriate consultation with trainers and colleagues for advice and direct help is carefully monitored and assessed.

The Learning Agreement

The Learning Agreement is a written statement of the mutually agreed learning goals and strategies negotiated between a trainee (learner) and the trainee's Assigned Educational Supervisor (AES). It is agreed at the initial objective setting meeting and covers the period of the placement. The agreement is based on the learning needs of the individual trainee undertaking the learning as well as the formal requirements of the curriculum. The web-based Learning Agreement form is accessed through the secure area of the website and is completed on-line. The AES and trainee complete the Learning Agreement together and are guided by the Training Programme Director's (TPD's) Global Objective. A blank Learning Agreement Form (for illustrative purposes only) is available in the Help area of the website.

Training Programme Director's (TPD's) Global Objective

The TPD's global objective is a statement which the TPD can set for the trainee's training year, informing placement objectives. The broad global objectives, derived from the syllabuses, are included in the Learning Agreement and highlight what the trainee should achieve during a period that may encompass several placements. They normally cover the period between the annual reviews.

The global objective for early years training would normally cover the following components:

- Run-through programmes: the common surgical syllabus, specialty-specific competences in the chosen specialty and professional behaviour and leadership skills for the stage.
- Themed programmes: the common surgical syllabus, specialty-specific competences in a number of complementary specialties and professional behaviour and leadership skills for the stage.
- Un-themed, broad-based programmes: the common surgical syllabus, sampling of specialty-specific competences in a number of specialties (topping up in specific specialties later in the stage) and professional behaviour and leadership skills for the stage.

For those wishing to pursue an academic surgical career, a proportion of competences might emphasise additional academic pursuits including research and teaching.

Together, the global and placement objectives are the means used by the TPD, AES and trainee to ensure curriculum coverage.

The content of the Learning Agreement will be influenced by the:

- Requirements set by the surgical specialty in its syllabus for the stage of training;
- Learner's previous experience;
- Learner's knowledge and skills;
- Learner's personal aspirations set down in a Personal Development Plan;
- Local circumstances of the placement.

Although the Learning Agreement is a statement of expected outcomes there is equal emphasis on learning opportunities and how the outcomes can be met. Trainees use it to keep track of which objectives have been completed and which have not; AESs use it to set down the educational strategies that are suited to the experiential learning appropriate to the placement, to monitor progress and make a summative report to the annual review. TPDs use it to oversee the process and to ensure that the correct training is delivered appropriate to the achievement of learning outcomes.

Each stage in the process allows the trainee and the AES to make individual comments on the training and appraisal process and to sign it off. The trainee also has the right of appeal to the TPD through the process. The trainee will meet the AES at the start of each placement to agree the learning and development plan and at mid-point and end of placement to review and report on progress. The frequency of meetings can be increased if required. The Learning Agreement provides a mechanism for the trainee and AES to meet and discuss feedback and guidance.

Stages in the Learning Agreement

There are three stages to the Learning Agreement that should be completed in sequence: Objective Setting; Interim Review; and Final Review.

In the Objective Setting stage, the trainee and the AES:

- Agree the learning objectives for the placement according to the trainee's needs and the learning that can be delivered in the placement and with reference to the TPD's global objective;
- Identify learning opportunities in the workplace such as in theatre, ward, clinic and simulated settings;
- Agree on the workplace-based assessments that can be undertaken to obtain formative feedback and demonstrate progress matched to areas of the syllabus e.g. DOPS for central venous line insertion;
- Identify the resources required so that the trainee can achieve his/her learning objectives, for example, time in clinic and theatre, equipment, reflective practice, trainers;
- Identify formal learning opportunities, activities or events in the educational programme, that the trainee should attend e.g. seminars, presentations, peer reviews.
- Consider the examinations the trainee is required to take whilst in the placement and courses the trainee plans to attend.
- Consider opportunities for audit and quality improvement activities, research and other projects.

Once these aspects have been agreed, the trainee and the AES sign off the Learning Agreement.

Although the objective setting stage of the Learning Agreement is the agreed plan for the placement, it can be modified during training if circumstances change and this can be recorded during the interim or final review.

Interim Review occurs at the mid-point of the placement. This stage is encouraged even for 4-month placements to check that progress is in line with the placement objectives. In the event that difficulties are being experienced, focussed training and repeat assessments should be initiated. The objectives for progress and further action plans agreed at the meeting are recorded on the Interim Review form and are signed off by the trainee and AES.

Final Review occurs towards the end of the placement. The trainee and AES review what the trainee has learned in the placement against the placement objectives set down in the Learning Agreement. Evidence would typically include the following:

- Workplace-based assessments and feedback (these should occur frequently with a range of assessors)
- Surgical logbook
- Audit and quality improvement
- Courses and seminars
- Examinations
- Meetings and conferences
- Patient feedback
- Presentations and posters
- Projects
- Publications
- Reflective practice (includes self MSF, reflective CBD, reflections in the journal and workplace-based assessment)
- Research
- Teaching

Each tool captures elements of judgment in action and maps to standards of Good Medical Practice. Over the training period they reveal the trainee's particular strengths, areas for development and progress.

Assigned Educational Supervisor's Report: The AES is responsible for synthesising the portfolio evidence at the end of the placement. The process of judging the evidence also involves the Trainee's Clinical Supervisors. The AES's evidence-based report is written in terms of the trainee's progress and specific learning outcomes and is facilitated by the learning portfolio. The report will be a key document for the Annual Review of Competence Progression (ARCP).

The TPD takes a holistic view of progress over the whole training period.

The Learning Portfolio

The trainee's portfolio has been designed to store evidence of the trainee's competence and fitness to practise. It serves as a repository of evidence that a trainee is progressing and meeting all the requirements of the curriculum. The portfolio is the vehicle used by the Annual Review of Competence Progression (ARCP) to recommend the trainee's continuing training or Certification.

The portfolio is organised into discrete sections, each designed to help trainees along the training pathway. The main sections of the portfolio include the Learning Agreement from each placement, reports from the trainee's Assigned Educational Supervisor (AES) and Clinical Supervisors (CSs); workplace-based assessment (WBA), a summary of the surgical logbook, other evidence of workplace activity and the ARCP.

The trainee is solely responsible for the contents of the portfolio both in terms of quality and veracity. Submission of information known to be false, if discovered, will have very serious consequences. All entries to the portfolio must respect the confidentiality of colleagues and patients and should not contain names or numbers to identify patients or staff. Portfolio evidence must be collected and documented systematically by the trainee as they progress through each placement.

Trainees must record all assessments that are conducted during the training period. WBA is considered to be formative and those that are of a less than satisfactory standard, if reflected upon appropriately, need not necessarily be seen as negative because they provide developmental feedback to drive learning and so improve practice. Where assessments have been unsatisfactory they should be repeated after focussed training until successful. The portfolio should enable the AES at the end of placement to assess the trainee in the round.

As part of the their professional obligations, trainees are also required to sign an educational contract which defines, in terms of education and training, their relationships, duties and obligations. It also makes explicit the basic framework the trainee can expect from each placement and what is expected by the AES in return. Statements of health and probity statement are also obligatory because doctors must have integrity and honesty and must take care of their own health and well-being so as not to put patients at risk.