

# Otolaryngology Curriculum

4 August 2021 (VERSION 2 / JULY 2023)

THE INTERCOLLEGIATE  
SURGICAL CURRICULUM PROGRAMME

*Educating the surgeons of the future*

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## Acknowledgements

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You can also find the curriculum on the ISCP website at [www.iscp.ac.uk](http://www.iscp.ac.uk)

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# 1 Introduction

The Otolaryngology curriculum provides the approved United Kingdom (UK) framework for the training of doctors to the level of independent consultant practice in Otolaryngology surgery, addressing the requirements of patients, the population and the strategic health services. The curriculum will also be followed for training in Otolaryngology in the Republic of Ireland. General Medical Council (GMC) approval of the curriculum pertains to UK training programmes while those in the Republic of Ireland are governed by the Royal College of Surgeons in Ireland (RCSI) and the Medical Council of Ireland.

## 2 Purpose

### 2.1 Purpose of the curriculum

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The purpose of the curriculum is to produce, at certification, consultant Otolaryngology surgeons with the generic and specialty-specific professional capabilities needed to manage patients presenting with the full range of acute conditions and general elective conditions as well as to develop a special interest within Otolaryngology. Trainees are entrusted to undertake the role of the general Otolaryngology Specialty Registrar (StR) during training and are qualified at certification to apply for consultant posts in Otolaryngology in the United Kingdom or Republic of Ireland. This section of the curriculum defines the scope of practice of Otolaryngology, what has to be learnt, the levels of performance expected to complete training, how the curriculum is delivered and how it is assessed.

Patient safety and competent practice are both essential and the curriculum has been designed so that the learning experience itself should not negatively affect patient safety. Patient safety is the first priority of training demonstrated through safety-critical content, expected levels of performance, critical progression points, required breadth of experience and levels of trainer supervision needed for safe and professional practice. Upon satisfactory completion of training programmes trainees are expected to be able to work safely and competently in the defined area of practice and to be able to manage or mitigate relevant risks effectively. A feature of the curriculum is that it promotes and encourages excellence through the setting of high-level outcomes, supervision levels for excellence, and tailored assessment and feedback, allowing trainees to progress at their own rate.

Training is divided into three phases, and the second two phases are covered in this curriculum. The first phase refers to core surgical training or the first two years of surgical training (indicative) for run-through trainees (core equivalent) and is covered by the separate core surgical training curriculum. In the second phase trainees must achieve competence in the knowledge required in the generality of the specialty required for certification, and in the third phase they must continue the acquisition of general and emergency Otolaryngology technical skills to achieve technical competence. In addition, trainees must achieve competence in one area of special interest, defined as an advanced area of training in a particular area of the specialty. Service providers and patients benefit from consultant otolaryngologists who are trained in the generality of the specialty but who also have special interest skills to provide more specialist care. The curriculum ensures that trainees at certification, have both a special interest skill and good general emergency and elective skills.

Seven special interest areas are offered:

1. Otolaryngology
2. Rhinology
3. Head and Neck
4. Thyroid and Parathyroid
5. Laryngology
6. Paediatric Otolaryngology
7. General Otolaryngology as a Special Interest

This purpose statement has been endorsed by the GMC's Curriculum Oversight Group and confirmed as meeting the needs of the health services of the countries of the UK.

## **2.2 Rationale and development of a new curriculum**

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*The Shape of Training (SoT) review*<sup>1</sup> and *Excellence by design: standards for postgraduate curricula*<sup>2</sup> provided opportunities to reform postgraduate training. The Otolaryngology curriculum will produce a workforce fit for the needs of patients, producing doctors who are more patient-focused, more general and who have more flexibility in their career structure. The GMC's introduction of updated standards for curricula and assessment processes laid out in *Excellence by Design* requires all medical curricula to be based on high-level outcomes. The high-level outcomes in this curriculum are called Capabilities in Practice (CiPs) and integrate parts of the syllabus to describe the professional tasks within the scope of specialty practice. At the centre of each of these groups of tasks are Generic Professional Capabilities<sup>3</sup> (GPCs), interdependent essential capabilities that underpin professional medical practice and are common to all who practise medicine. The GPCs are in keeping with Good Medical Practice (GMP)<sup>4</sup>. Equipping all trainees with these transferable capabilities should result in a more flexible, adaptable workforce.

All the shared CiPs are transferable to other surgical specialties and some may be transferable to non-surgical specialties. In addition, core knowledge and skills gained in any surgical specialty training programme are transferable for entry into Otolaryngology. Trainees who choose to move to or from a different speciality training programme having previously gained skills transferable to Otolaryngology, therefore, may be able to have a shorter than usual training pathway in their new training programme. While most of the specialty syllabus is not transferable because the knowledge and detailed technical skills are specific to Otolaryngology, some limited areas of the syllabus may be transferable e.g. Thyroid and Parathyroid surgery could be transferred to the Endocrine Surgery special interest within General Surgery. This flexible approach, with acquisition of transferable capabilities, allows surgical training to adapt to current and future patient and workforce needs and change in the requirements of surgery with the advent of new treatments and technologies.

## **2.3 The training pathway and duration of training**

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Trainees enter Otolaryngology training via a national selection process at either phase 2 after core surgical training (CT1-2) or through the run-through programme from phase 1. Training is delivered in three phases, phase 1 (two years, of core surgical training or Otolaryngology themed run-through training), phase 2 (four years) and phase 3 (one or two years). Trainees who demonstrate

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<sup>1</sup> [Shape of training: Securing the future of excellent patient care](#)

<sup>2</sup> [Excellence by design: standards for postgraduate curricula](#)

<sup>3</sup> [Generic professional capabilities framework](#)

<sup>4</sup> [Good Medical Practice](#)

exceptionally rapid development in knowledge, technical skills and acquisition of capabilities can complete training more rapidly than this indicative time. There may also be a small number of trainees who develop more slowly and require an extension of training in line with *A Reference Guide for Postgraduate Foundation and Specialty Training in the UK (The Gold Guide)*<sup>5</sup>. Trainees who opt for training less than full time (LTFT) have their indicative training time extended on a pro-rata basis.

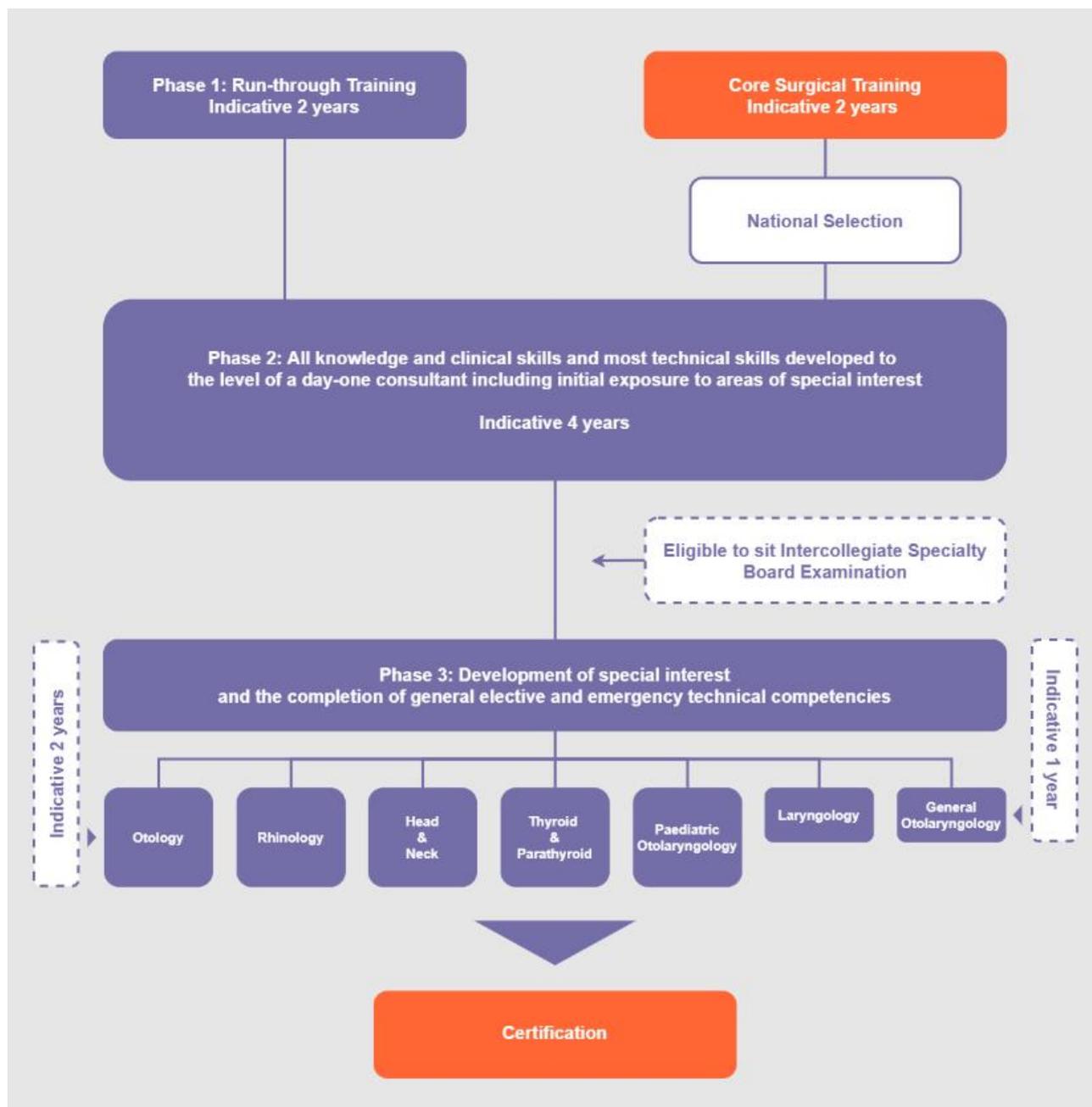


Figure 1: Otolaryngology training pathway. Trainees can enter Otolaryngology training at phase 1, following the curriculum for core surgical training and running through without further selection into phase 2 of the Otolaryngology curriculum, or trainees can enter at phase 2, having successfully completed the curriculum for core surgical training and been successful at a national selection process into Otolaryngology training. Core surgical training is uncoupled from specialty training for

<sup>5</sup> [Gold Guide 8<sup>th</sup> edition](#)

the majority of trainees. The availability of posts is at the discretion of the statutory postgraduate medical education bodies.

### Phase 1

Trainees can enter Otolaryngology training via a run-through programme at phase 1. They will follow an Otolaryngology themed two-year programme, following the core surgical training curriculum. The Intercollegiate Membership examination of the Royal Colleges of Surgeons; MRCS (ENT) (the MRCS part A plus the MRCS ENT OSCE) must be successfully completed before progressing to Phase 2.

### Phase 2

During phase 2 trainees must gain the knowledge and clinical skills in general Otolaryngology to the level of independent practice expected at certification. Their technical skills, whilst well developed by the end of phase 2, will not necessarily reach the level expected for certification in the emergency and general elective competencies of the syllabus until the end of phase 3. At the end of phase 2 there is a critical progression point (see section 3.4) at which trainees must be able to demonstrate competencies in knowledge, clinical skills and professional behaviours commensurate with certification and become eligible to sit the Intercollegiate Specialty Board (ISB) examination in Otolaryngology.

### Phase 3

In phase 3 trainees must further develop the technical skills in the elective and emergency aspects of the specialty and develop one of seven possible special interest areas as defined by the syllabus. A special interest is chosen after discussion with the Training Programme Director (TPD) and is based on the needs of the service, the preference of the trainee and the ability of the programme to support the trainee in that special interest. While programmes offer most or all of the special interest areas, either within the programme or by arrangement with a neighbouring programme, there is no requirement for any one programme to offer all the areas of special interest. There may be instances where there are more trainees in a cohort who wish to pursue an area of a specific special interest than a programme can accommodate, and the TPD may need to suggest a different special interest to some of these trainees.

Five of the special interest modules take an indicative two years to complete (Otology, Rhinology, Head and Neck, Paediatric Otolaryngology and Thyroid and Parathyroid), giving a total specialty training time of an indicative six years. Trainees undertaking Laryngology or General Otolaryngology as a special interest are usually able to complete this training in one year, subject to them also achieving the necessary technical skills in general and emergency Otolaryngology, giving an indicative specialty training time of five years. For all trainees the actual length of training may be shorter or longer than the indicative time according to the rate at which competencies are achieved.

Trainees do not necessarily spend all of phase 3 in placements in their chosen area of special interest as, by the end of phase 2, they are not required to have reached the level of technical skill in general elective and emergency Otolaryngology required by the syllabus for certification. Trainees may, therefore, need to undertake placements offering this training in phase 3. By the end of phase 3 trainees must be able to perform, independently to the standard expected of a day-one consultant, the procedures that are required to safely manage all patients presenting as emergencies, except those rare cases which need more specialised care - certification produces doctors with the knowledge and skills to stabilise and safely transfer these patients. At certification, trainees must

also be able to manage a wide range of general Otolaryngology elective procedures in both children and adults, as described in the syllabus (appendix 2). On successful completion of phase 3, including successful completion of the ISB examination, trainees become eligible for certification and for recommendation to enter the specialist register.

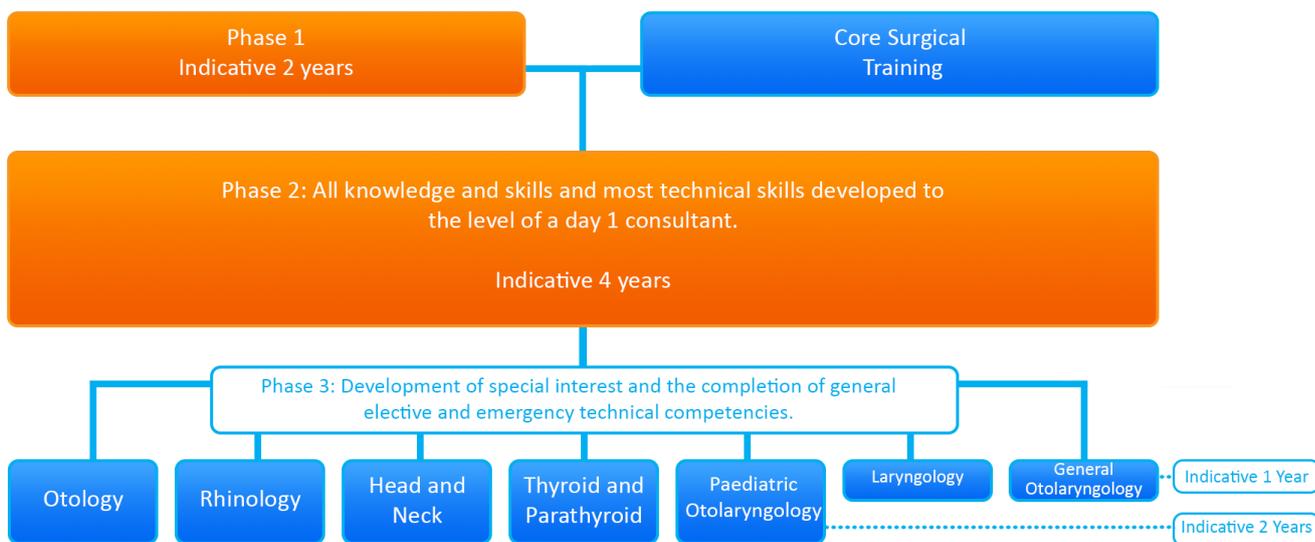


Figure 2 – Progression through training

### 3 Programme of Learning

This section covers the expected learning outcomes, learning methods, breadth of experience and levels of performance at critical progression points in the training programme and the levels of performance expected of those completing training.

#### 3.1 What has to be learnt to complete the Otolaryngology curriculum

The practice of Otolaryngology requires the generic and specialty knowledge, clinical and technical skills and behaviours to manage patients presenting with a wide range of ear, nose, throat and neck disorders. It involves development of competence in diagnostic reasoning, managing uncertainty, dealing with co-morbidities, and recognising when another specialty opinion or care is required (as well as developing technical skills in the areas and to the level described in the syllabus as shown in appendix 2). The main areas for learning are described by the CiPs which are the high-level learning outcomes for training in Otolaryngology described below and shown in full in appendix 1.

#### 3.2 Capabilities in Practice (the high-level outcomes of training)

Training is designed to produce a person capable of safely and effectively performing the role of a first day consultant surgeon. The role of a consultant surgeon can be thought of as a sum of all the various tasks which need to be performed through a working week. These tasks are the high-level outcomes of the curriculum and grouping these together describe the role of a consultant surgeon. To perform a high level clinical task as a consultant a surgeon requires trainees to be able to integrate areas of learning from all parts of the syllabus, including knowledge, clinical skills, professional skills and technical skills. In addition, a surgeon will need to have acquired the generic skills, behaviours and values shared by all doctors in order to perform this task safely and well. A capability is a set of skills that can be developed through training from novice to expert and,

therefore, these high-level clinical outcomes are known as Capabilities in Practice. They are common across all surgical specialties and are delivered within the context of the GPCs and the specialty syllabus.

There are five CiPs which are shared between all surgical specialties:

- 1) Manages an out-patient clinic
- 2) Manages the unselected emergency take
- 3) Manages ward rounds and the on-going care of in-patients
- 4) Manages an operating list
- 5) Manages multi-disciplinary working

The generic knowledge, skills, behaviours and values shared by all doctors are described in the GPC framework. The GPCs are essential components and have equal weight to the CiPs in the training and assessment of clinical capabilities and responsibilities in the training programme.

The GPC framework has nine domains:

Domain 1: Professional values and behaviours

Domain 2: Professional skills

*Practical skills*

*Communication and interpersonal skills*

*Dealing with complexity and uncertainty*

*Clinical skills*

Domain 3: Professional knowledge

*Professional requirements*

*National legislative requirements*

*The health service and healthcare system in the four countries*

Domain 4: Capabilities in health promotion and illness prevention

Domain 5: Capabilities in leadership and team working

Domain 6: Capabilities in patient safety and quality improvement

*Patient safety*

*Quality improvement*

Domain 7: Capabilities in safeguarding vulnerable groups

Domain 8: Capabilities in education and training

Domain 9: Capabilities in research and scholarship

Simply put, the CiPs and GPCs are the constituent parts of the role of a consultant surgeon in Otolaryngology. Each part is as important as the next, and doctors are required to be capable in all parts of the role in order to be able to practice independently. In order to complete training and be recommended to the GMC for certification and entry to the specialist register, the doctor must demonstrate that they are capable of unsupervised practice in all the CiPs and GPCs. For example, managing an unselected emergency take (CiP 2) requires the integration of knowledge, clinical and diagnostic skills, and technical skills described in the syllabus as well as communication and interpersonal skills, time management skills and many other generic skills described in the GPCs in order to be delivered safely, professionally and effectively. This will be assessed using the Multiple

Consultant Report (MCR) as described below. The full content of the five CiPs can be found in appendix 1.

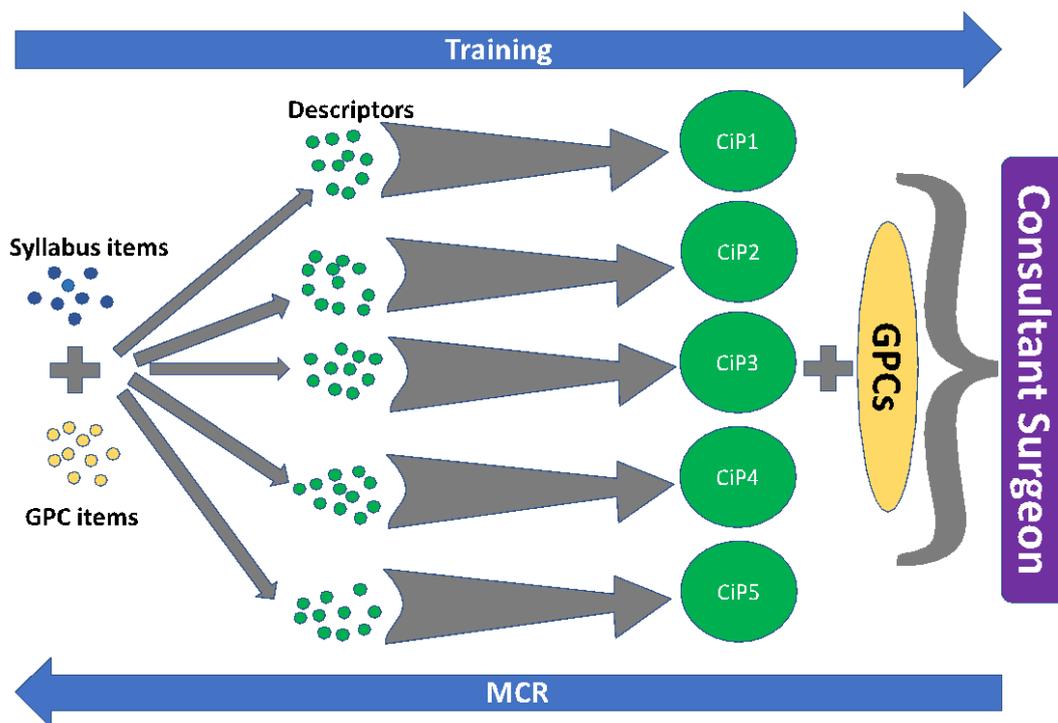


Figure 3 - The interrelationship of the GPCs, the syllabus, the CiPs and their descriptors to the role of a consultant surgeon. Items from the syllabus are combined with items taken from the GPC framework to form the small tasks which are the CiP descriptors. When the small tasks of the descriptors are integrated they comprise the constituent parts of the role of a consultant surgeon (the CiPs). When the CiPs are taken together, along with the GPCs, the role of a consultant surgeon (the overall outcome of the curriculum), is described. Each of these CiPs will be developed through training until the level required of a day-one consultant is reached. Assessment in an outcomes based curriculum through the MCR examines the trainee from the perspective of the outcome (a consultant surgeon), and compares performance in each CiP and in the GPCs to that level. If the outcome level is not reached then targeted feedback and development plans can be made with reference to the CiP descriptors and beyond to the syllabus items and GPC items that combine to form the descriptors.

### 3.3 Descriptors for CiPs

The five CiPs taken together describe the role of a consultant in Otolaryngology but more detail is needed to help trainees develop that capability through training via detailed feedback and focused development goals.

We can break the CiPs down into smaller tasks. Each of these smaller tasks is a CiP descriptor. If a trainee has not yet reached the level required of a new consultant in a CiP then the descriptors can be used to describe in standard language what needs to be improved through learning and training to allow the trainee to get closer towards the outcome of training. By describing component parts of a CiP, descriptors also aid decisions on assessment of the level of supervision required by a trainee at the time of that assessment, providing prompts for feedback of performance by allowing identification of areas of excellence or specific detail on areas for development, including in behavioural and professional domains. Descriptors can, therefore, help trainees identify where to

focus their efforts to become competent and safe independent practitioners. More detail about assessment and feedback is given in section 5, Programme of Assessment.

Each CiP is judged against a scale that describes the level of supervision required to perform the CiP to the standard of certification. The level of supervision changes in line with the trainee’s progression, consistent with safe and effective care for the patient. Typically, there should be a gradual reduction in the level of supervision required and an increase in the complexity of cases managed until the level of competence for independent practice is acquired. In the early years, therefore, it would be normal for trainees to achieve a lower supervision level and progress as experience is gained.

The supervision levels are:

Level I: Able to observe only

Level II: Able and trusted to act with direct supervision:

a) Supervisor present throughout

b) Supervisor present for part

Level III: Able and trusted to act with indirect supervision

Level IV: Able and trusted to act at the level expected of a day-one consultant

Level V: Able and trusted to act at a level beyond that expected of a day-one consultant

### 3.4 Critical progression points

The training pathway described above (figure 1) shows that after phase 1 all trainees will complete two further phases. There is a single critical progression point at the end of phase 2. To move from phase 2 to phase 3 trainees must demonstrate knowledge, clinical skills and professional behaviours commensurate with certification and, therefore, become eligible to sit the ISB examination in Otolaryngology. Table 1 shows the indicative supervision levels to be achieved to complete phase 2 and the supervisions levels required by the end of phase 3. A trainee becomes eligible for certification when supervision level IV has been achieved in all the CiPs as well as acquiring all of the skills described in the GPC framework (in addition to the other certification requirements shown in section 5.4) as confirmed by an Annual Review of Competence Progression (ARCP) panel.

Capabilities in Practice	Indicative Supervision Level (end of phase 2)	Supervision Level (end of phase 3 and certification)
Manages an out-patient clinic	SL III	SL IV
Manages the unselected emergency take	SL III	SL IV
Manages ward rounds and the on-going care of in-patients	SL III	SL IV
Manages an operating list	SL III	SL IV
Manages multi-disciplinary working	SL III	SL IV

Table 1: Supervision levels to be achieved by the end of each phase of training

### **3.5 Breadth of experience required during training in Otolaryngology**

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The curriculum requires trainees to accrue a rich experience that promotes deep learning of knowledge, clinical skills, technical skills, professional behaviour, leadership and all other generic professional skills that are considered necessary to ensure patient safety throughout the training process and specifically at the end of training. The scope of practice of a day-one consultant in Otolaryngology is described in the syllabus. In addition, there are certain skills and conditions within the syllabus that are of such central and fundamental importance to the safe practice of Otolaryngology that they are highlighted as critical conditions and index procedures.

#### **3.5.1 The syllabus**

The syllabus, shown in appendix 2, provides a detailed description of the specialty-specific knowledge, clinical and technical skills required for each phase of training and for certification in Otolaryngology. The syllabus is organised by topics which are the presenting conditions of patients in relation to the specialty. Trainees are expected to have exposure to all topics in phase 2 of training.

#### **3.5.2 Critical conditions**

From the syllabus, a list of critical conditions has been identified which are of significant importance for patient safety and demonstration of a safe breadth of practice. Across surgery, these are defined as any condition where a misdiagnosis could be associated with devastating consequences for life or limb. These critical conditions are assessed individually by means of the Case Based Discussion (CBD) and Clinical Evaluation Exercise (CEX) which both include an assessment of clinical judgement and decision-making. They provide formative feedback to the trainee and feed into the summative assessment of the Assigned Educational Supervisor (AES) via the AES report for the ARCP. A list of critical conditions for Otolaryngology is given in appendix 3 and is included in the certification requirements in this curriculum. These critical conditions were decided following wide consultation with clinicians and trainers in the specialty.

#### **3.5.3 Index procedures**

In addition to the critical conditions, a list of index procedures has been identified. Index procedures are common but important operations central to the specialty, competence in which is essential to the delivery of safe patient care. Taken together they form a representative sample of the breadth of operative procedures in the specialty. Learning in the index procedures is indicative of learning in the broad range of technical procedures in the syllabus and surgical logbook and are, therefore, of significant importance for patient safety and demonstration of a safe breadth of practice. Each of these index procedures is assessed individually by means of the Procedure Based Assessment (PBA) which provides formative feedback to the trainee and feeds into the summative AES report for the ARCP. A list of index procedures is shown in the certification requirements and also in appendix 4 with the indicative numbers of cases necessary before certification as trainees would not normally be expected to have achieved sufficient experience to be able to manage the range of pathology they encounter unless these numbers were met. It is recognised that competence could be achieved with fewer cases, if supported by evidence from other assessments. Meeting the numbers does not, in itself, imply competence. These index procedures were decided following wide consultation with clinicians and trainers in the specialty.

To support the demonstration of a sufficient breadth of experience and achievement of competence in the generality of Otolaryngology and special interest areas within Otolaryngology, the certification requirements, shown in section 5.4, summarise the experience trainees need to achieve by the end of the training programme.

## 4 Teaching and Learning

### 4.1 How the Otolaryngology curriculum is delivered

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The curriculum is used to help design training programmes locally that ensure all trainees can develop the necessary skills and knowledge in a variety of settings and situations. The curriculum is designed to ensure it can be applied in a flexible manner, meeting service needs as well as supporting each trainee's own tailored learning and development plan. The requirements for curriculum delivery have not changed as a result of this new curriculum. All training must comply with the GMC requirements presented in *Promoting excellence: standards for medical education and training*<sup>6</sup> (2017). This stipulates that all training must comply with the following ten standards:

#### *Theme 1: learning environment and culture*

S1.1 The learning environment is safe for patients and supportive for learners and educators. The culture is caring, compassionate and provides a good standard of care and experience for patients, carers and families.

S1.2 The learning environment and organisational culture value and support education and training, so that learners are able to demonstrate what is expected in Good Medical Practice and to achieve the learning outcomes required by their curriculum.

#### *Theme 2: educational governance and leadership*

S2.1 The educational governance system continuously improves the quality and outcomes of education and training by measuring performance against the standards, demonstrating accountability and responding when standards are not being met.

S2.2 The educational and clinical governance systems are integrated, allowing organisations to address concerns about patient safety, the standard of care, and the standard of education and training.

S2.3 The educational governance system makes sure that education and training is fair and is based on the principles of equality and diversity.

#### *Theme 3: supporting learners*

S3.1 Learners receive educational and pastoral support to be able to demonstrate what is expected in Good Medical Practice, and to achieve the learning outcomes required by their curriculum.

#### *Theme 4: supporting educators*

S4.1 Educators are selected, inducted, trained, and appraised to reflect their education and training responsibilities.

S4.2 Educators receive the support, resources and time to meet their education and training responsibilities.

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<sup>6</sup> [Promoting excellence: standards for medical education and training](#)

## *Theme 5: developing and implementing curricula and assessments*

S5.1 Medical school curricula and assessments are developed and implemented so that medical students are able to achieve the learning outcomes required for graduates.

S5.2 Postgraduate curricula and assessments are implemented so that doctors in training are able to demonstrate what is expected in Good Medical Practice, and to achieve the learning outcomes required by their curriculum.

It is the responsibility of Health Education England (HEE) and its Local Offices, NHS Education for Scotland (NES), Health Education and Improvement Wales (HEIW), the Northern Ireland Medical and Dental Training Agency (NIMDTA) and the Health Service Executive (HSE) in the Republic of Ireland to ensure compliance with these standards. Training delivery must also comply with the latest edition of the Gold Guide. Appendix 7 outlines the quality management arrangements for the curriculum.

### **4.2 Learning opportunities**

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A variety of educational approaches are used by education providers in order to help trainees develop the knowledge, clinical and technical skills, professional judgement, values and behaviours required by the curriculum. Taken together, these educational approaches ensure that the CiPs and GPCs are taught appropriately in order that the purpose of the curriculum is met. These educational approaches divide into three areas:

- Self-directed learning
- Learning from practice
- Learning from formal situations

#### **4.2.1 Self-directed learning**

The curriculum is trainee-led and self-directed learning is encouraged. 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 encouraged to establish study groups, journal clubs and conduct peer reviews. They should take the opportunity of learning 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 attending formal and informal teaching. This includes using study materials and publications and reflective practice. Trainees are expected to use the developmental feedback they get from their trainers in learning agreement meetings and from assessments to focus further research and practice.

Reflective practice is an important part of self-directed learning and 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 order to refine and improve them. Reflection in the oral form is very much an activity that surgeons engage in and find useful and developmental. Writing reflectively adds more to the oral process by deepening the understanding of 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. Whatever the modality of reflection, it is important that it takes place and that there is a record of it having taken place, whether or not the specific subject or content of the reflection is

recorded<sup>7</sup>. Self-directed learning permits development in all five CiPs and the GPCs, especially when there is effective reflection on all aspects of learning at the centre of self-directed learning.

#### **4.2.2 Learning from clinical practice**

Surgical learning is largely experiential in nature with any interaction in the workplace having the potential to become a learning episode. The workplace provides learning opportunities on a daily basis for surgical trainees, based on what they see and what they do. Trainees are placed in clinical placements, determined locally by TPDs, which provide teaching and learning opportunities. The placements must be in units that are able to provide sufficient clinical resource and have sufficient trainer capacity.

While in the workplace, trainees are involved in supervised clinical practice, primarily in a hospital environment in wards, clinics or theatre. There are strong links to practitioners working in primary care and training environments may include private settings and, where available for training, a variety of community settings where the necessary facilities and governance arrangements are in place. The trainee role in these contexts determines the nature of the learning experience. Learning begins with observation of a trainer (not necessarily a doctor) and progresses to assisting a trainer; the trainer assisting/supervising the trainee and then the trainee managing a case independently but with access to their supervisor. The level of supervision changes in line with the trainee's progression through the phases of the curriculum. As training progresses, trainees should have the opportunity for increased autonomy, consistent with safe and effective care for the patient. Typically, there should be a gradual reduction in the level of supervision required and an increase in the complexity of cases managed until the level of competence for independent practice is acquired.

The CiPs are best taught, particularly in the early phases of training, by a specifically selected trainer directly watching and supervising while the trainee carries out the activity. This type of training is known as Professionalised Training and requires more time (and so, consequently, a reduced clinical workload) than conventional methods. It permits more thorough teaching, more rapid achievement of skill and earlier recognition of difficulties. Continuous systematic feedback and reflection are integral to learning from clinical practice. The CiP and GPC descriptors through the MCR assessment provide detailed feedback and identify specific, timely and relevant goals for development through training. Education providers should make every attempt to ensure that each trainee has exposure to Professionalised Training appropriate to their phase of progression through the curriculum. It is recommended that this be one session per week per trainee in the early years. Trainees are required to keep a surgical logbook to support their reflection and the assessment of their operative skills.

#### **4.2.3 Learning from formal situations**

Learning from clinical practice is supplemented by an educational programme of courses and teaching sessions arranged at local, regional and national levels. These should be mapped to the CiPs and the Otolaryngology syllabus and may include a mixture of formal talks including attendance at national conferences relevant to the speciality, small group discussion, case review and morbidity and mortality meetings, literature review and skills teaching. Mandatory courses for trainees are shown in the certification requirements (section 5.4 below) and appendix 5.

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<sup>7</sup> Improving feedback and reflection to improve learning. A practical guide for trainees and trainers <http://www.aomrc.org.uk/reports-guidance/improving-feedback-reflection-improve-learning-practical-guide-trainees-trainers/>

#### **4.2.4 Simulation**

Teaching in formal situations often involves the use of simulation. In this context simulation can be 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-free environment. Simulation can be used for the development of both individuals and teams. 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 with scenarios.

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 is 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. Simulation training broadly follows the same pattern of learning opportunities offering insight into the development of technical skills, team-working, leadership, judgement and professionalism. Education providers should use all teaching methods available, including simulation teaching, to ensure that the full breadth of the syllabus is covered. Where there is a need for specific intensive courses to meet specific learning outcomes, there may be a number of equivalent providers.

#### **4.3 Supervision**

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Supervision is fundamental in the delivery of safe and effective training. It takes advantage of the experience, knowledge and skills of expert clinicians and ensures interaction between an experienced clinician and a trainee. 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. A number of people from a range of professional groups are involved in teaching and training with subject areas of the curriculum being taught by staff with relevant specialist expertise and knowledge. Those involved in the supervision of trainees must have the relevant qualifications, experience and training to undertake the role. Specialist skills and knowledge are usually taught by consultants and senior trainees whereas the more generic aspects of practice can also be taught by the wider multidisciplinary team (MDT).

The key roles involved in teaching and learning are the Training Programme Director, Assigned Educational Supervisor, Clinical Supervisor, Assessor and Trainee. Their responsibilities are described in appendix 6 and further information is given in the Gold Guide.

In the UK, the GMC's process for the recognition and approval of trainers<sup>8</sup> enables Deanerie/HEE Local Offices to formally recognise AES and Clinical Supervisors (CSs) and ensure they meet the specified criteria. Trainees must be placed in approved placements that meet the required training and educational standards of the curriculum. In each placement, trainees have a named AES and one or more CS, responsible for overseeing their education. Depending on local arrangements these roles may be combined into a single role of AES.

All elements of work in training posts must be supervised. The level of supervision varies according to the experience of the trainee, the clinical exposure and the case mix undertaken. As training progresses trainees should have the opportunity for increased autonomy, consistent with safe and effective care for the patient. Achievement of supervision level IV in any of the five CiPs indicates that a trainee is able to work at an independent level, with advice from their trainer at this level being equivalent to a consultant receiving advice from senior colleagues within an MDT. However, within the context of a training system trainees are always under the educational and clinical governance structures of the Health Service.

#### 4.5 Supporting feedback and reflection

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Effective feedback is known to enhance learning, and combining self-reflection<sup>7</sup> with feedback promotes deeper learning. Trainees are encouraged to seek feedback on all they do, either informally, through verbal feedback at the end of a learning event, or formally through workplace-based assessments (WBAs). The MCR and use of the CiP and the GPC descriptors provide regular opportunities for detailed and specific feedback. Trainee self-assessment of CiPs provides a regular opportunity for focused and structured reflection and development of self-directed goals for learning as well as developing these goals through dialogue with trainers. All the assessments in the curriculum are designed to include a feedback element as well as to identify concerns in multiple ways:

- *Learning agreement*: appraisal meetings with the AES at the beginning, middle and end of each placement
- *WBA*: immediate verbal dialogue after a learning episode
- *CBD*: meeting with a consultant trainer to discuss the management of a patient case
- *MSF*: meeting with the AES to discuss the trainee's self-assessment and team views
- *MCR (mid-point formative)*: meeting with the AES or CS to discuss the trainee's self-assessment and CSs' views on CiPs
- *MCR (final formative, contributing to the AES's summative Report)*: meeting with the AES or CS to discuss the trainee's self-assessment and CSs' views on CiPs
- *Formal examinations*: summative feedback on key areas of knowledge and skills
- *ARCP*: a feedback meeting with the TPD or their representative following an ARCP

Constructive feedback is expected to include three elements i) a reflection on performance ii) identification of the trainee's achievements, challenges and aspirations and iii) an action plan.

#### 4.6 Academic training

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All trainees are required to satisfy the learning outcomes in domain 9 of the GPC framework: *Capabilities in research and scholarship*. Trainees are encouraged to participate in clinical research and collaborative trials to achieve these outcomes, as well as in journal clubs, literature review and systematic review and to make a major contribution to the publication of novel findings in peer

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<sup>8</sup> [GMC recognition and approval of trainers](#)

reviewed journals. An understanding of the principles of research, its interpretation and safe implementation of evidenced based new methods, processes and techniques is essential for the modern, progressive practice of surgery and in the interests of patients and the service. Some trainees choose to take time out of training for a formal period of research, as specified in the Gold Guide<sup>5</sup>. For the majority, this leads to the award of a higher degree in an area related to their chosen specialty. Some also choose to focus a significant part of their training time on academic medicine, but need to complete all the essential elements of their specialty curriculum satisfactorily in order to achieve certification. The rate of progression through the clinical component of their training is determined by the ARCP process to ensure that all clinical requirements are met in keeping with the curriculum. Arrangements for academic training differ in detail across the nations of the UK and Republic of Ireland. Details of arrangements can be found on the webpages of the relevant National Health Education body.

## 5 Programme of Assessment

### 5.1 Purpose of assessment

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Assessment of learning is an essential component of any curriculum. This section describes the assessment system and the purpose of its individual components which are blueprinted to the curriculum as shown in appendix 9. The focus is on good practice, based on fair and robust assessment principles and processes in order to ensure a positive educational impact on learners and to support assessors in making valid and reliable judgements. The programme of assessment comprises an integrated framework of examinations, assessments in the workplace and judgements made about a learner during their approved programme of training. Its purpose is to robustly evidence, ensure and clearly communicate the expected levels of performance at critical progression points in, and to demonstrate satisfactory completion of, training as required by the curriculum. The assessment programme is shown in figure 4 below.

Assessments can be described as *helping* learning or *testing* learning - referred to as formative and summative respectively. There is a link between the two; some assessments are purely formative (shown in green in Figure 4), others are explicitly summative with a feedback element (shown in blue) while others provide formative feedback while contributing to summative assessment (shown in orange).

The purposes of formative assessment are to:

- assess trainees' actual performance in the workplace.
- enhance learning by enabling trainees to receive immediate feedback, understand their own performance and identify areas for development.
- drive learning and enhance the training process by making it clear what is required of trainees and motivating them to ensure they receive suitable training and experience.
- enable supervisors to reflect on trainee needs in order to tailor their approach accordingly.

The purposes of summative assessment are to:

- provide robust, summative evidence that trainees are meeting the curriculum requirements during the training programme.
- ensure that trainees possess the essential underlying knowledge required for their specialty, including the GPCs to meet the requirements of GMP.
- inform the ARCP, identifying any requirements for targeted or additional training where necessary and facilitating decisions regarding progression through the training programme.

- identify trainees who should be advised to consider changes of career direction.
- provide information for the quality assurance of the curriculum.

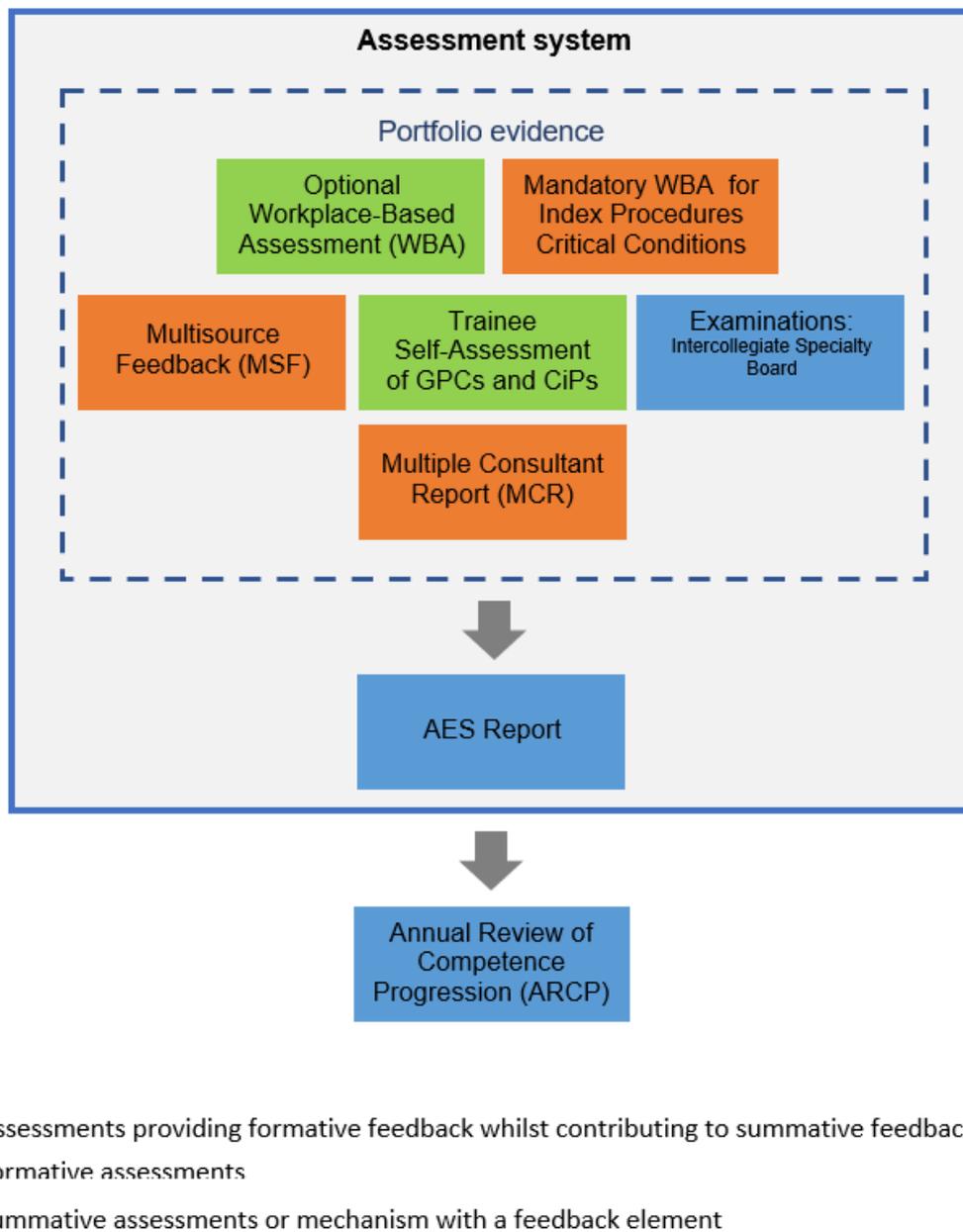


Figure 4: Assessment framework .

## 5.2 Delivery of the programme of assessment

The programme of assessment is comprised of several different types of assessment needed to meet the requirements of the curriculum. These together generate the evidence required for global judgements to be made about satisfactory trainee performance, progression in, and completion of, training. These include the ISB examination and WBAs. The primary assessment in the workplace is the MCR, which, together with other portfolio evidence, contributes to the AES report for the ARCP. Central to the assessment framework is professional judgement. Assessors are responsible and accountable for these judgements and these judgements are supported by structured feedback to trainees. Assessment takes place throughout the training programme to allow trainees to continually gather evidence of learning and to provide formative feedback to the trainee to aid progression.

Reflection and feedback are also an integral components of all WBAs. In order for trainees to maximise the benefit of WBA, reflection and feedback should take place as soon as possible after the event. Feedback should be of high quality that should include a verbal dialogue between trainee and assessor in reflection on the learning episode, attention to the trainee’s specific questions, learning needs and achievements as well as an action plan for the trainee’s future development. Both trainees and trainers should recognise and respect cultural differences when giving and receiving feedback<sup>9</sup>. The assessment framework is also designed to identify where trainees may be running into difficulties. Where possible, these are resolved through targeted training, practise and assessment with specific trainers and, if necessary, with the involvement of the AES and TPD to provide specific remedial placements, additional time and additional resources.

### 5.3 Assessment framework components

Each of the components of the assessment framework are described below.

#### 5.3.1 The sequence of assessment

Training and assessment take places within placements of six to twelve months’ duration throughout each phase (figure 5). Assessments are carried out by relevant qualified members of the trainee’s multi-professional team whose roles and responsibilities are described in appendix 6. Trainee progress is monitored primarily by the trainee’s AES through learning agreement meetings with the trainee. Throughout the placement trainees must undertake WBAs while specialty examinations are undertaken towards at the higher end of the programme after satisfactory completion of phase 2. The trainee’s CSs must assess the trainee on the five CiPs and nine GPC domains using the MCR. This must be undertaken towards the mid-point of each placement in a formative way and at the end of the placement when the formative assessment will contribute to the AES’s summative assessment at the final review meeting of the learning agreement. The placement culminates with the AES report of the trainee’s progress for the ARCP. The ARCP makes the final decision about whether a trainee can progress to the next level or phase of training. It bases its decision on the evidence that has been gathered in the trainee’s learning portfolio during the period between ARCP reviews, particularly the AES report in each training placement.

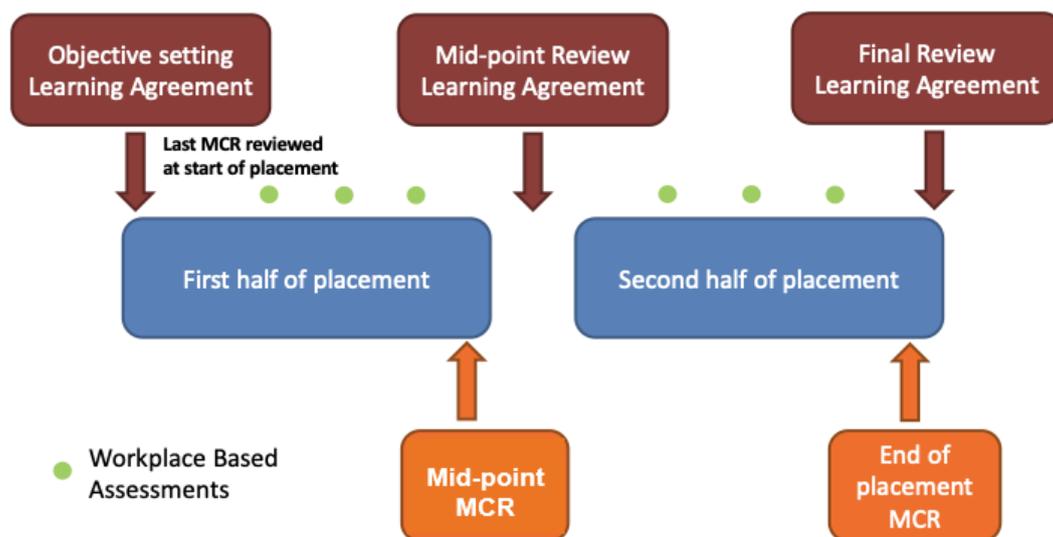


Figure 5: The sequence of assessment through a placement.

<sup>9</sup> <https://www.iscp.ac.uk/courses/culturalawarenesscourse.aspx>

### **5.3.2 The learning agreement**

The learning agreement is a formal process of goal setting and review meetings that underpin training and is formulated through discussion. The process ensures adequate supervision during training, provides continuity between different placements and supervisors and is one of the main ways of providing feedback to trainees. There are three learning agreement meetings in each placement and these are recorded in the trainee's learning portfolio. Any significant concerns arising from the meetings should be fed back to the TPD at each point in the learning agreement.

#### *Objective-setting meeting*

At the start of each placement the AES and trainee must meet to review the trainee's progress so far, agree learning objectives for the placement ahead and identify the learning opportunities presented by the placement. The learning agreement is constructively aligned towards achievement of the high-level outcomes (the CiPs and GPCs) and, therefore, the CiPs and GPCs are the primary reference point for planning how trainees will be assessed and whether they have attained the learning required. The learning agreement is also tailored to the trainee's progress, phase of training and learning needs. The summative MCR from the previous placement will be reviewed alongside the most recent trainee self-assessment and the action plan for training. Any specific targeted training objectives from the previous ARCP should also be considered and addressed though this meeting and form part of the learning agreement.

#### *Mid-point review meeting*

A meeting between the AES and the trainee must take place at the mid-point of a placement (or each three months within a placement that is longer than six months). The learning agreement must be reviewed, along with other portfolio evidence of training such as WBAs, the logbook and the formative mid-point MCR, including the trainee's self-assessment. This meeting ensures training opportunities appropriate to the trainee's own needs are being presented in the placement, and are adjusted if necessary in response to the areas for development identified through the MCR. Particular attention must be paid to progress against targeted training objectives and a specific plan for the remaining part of the placement made if these are not yet achieved. There should be a dialogue between the AES and CSs if adequate opportunities have not been presented to the trainee, and the TPD informed if there has been no resolution. Discussion should also take place if the scope and nature of opportunities should change in the remaining portion of the placement in response to areas for development identified through the MCR.

#### *Final review meeting*

Shortly before the end of each placement trainees should meet with their AES to review portfolio evidence including the final MCR. The dialogue between the trainee and AES should cover the overall progress made in the placement and the AES's view of the placement outcome.

#### *AES report*

The AES must write an end of placement report which informs the ARCP. The report includes details of any significant concerns and provides the AES's view about whether the trainee is on track in the phase of training for completion within the indicative time. If necessary, the AES must also explain any gaps and resolve any differences in supervision levels which came to light through the MCR.

### 5.3.3 The Multiple Consultant Report

The assessment of the CiPs and GPCs (high-level outcomes of the curriculum) involves a global professional judgement of a range of different skills and behaviours to make decisions about a learner's suitability to take on particular responsibilities or tasks that are essential to consultant practice at the standard of certification. The MCR assessment must be carried out by the consultant CSs involved with a trainee, with the AES contributing as necessary to some domains (e.g. *Quality Improvement, Research and Scholarship*). The number of CSs taking part reflects the size of the specialty unit and is expected to be no fewer than two. The exercise reflects what many consultant trainers do regularly as part of a faculty group.

The MCR includes a global rating in order to indicate how the trainee is progressing in each of the five CiPs. This global rating is expressed as a supervision level recommendation described in table 2 below. Supervision levels are behaviourally anchored ordinal scales based on progression to competence and reflect a judgment that has clinical meaning for assessors. Using the scale, CSs must make an overall, holistic judgement of a trainee's performance on each CiP. Levels IV and V, shaded in grey, equate to the level required for certification and the level of practice expected of a day-one consultant in the Health Service (level IV) or beyond (level V). Figures 6 and 7 show how the MCR examines performance from the perspective of the outcome of the curriculum, the day-one consultant surgeon, in the GPCs and CiPs. If not at the level required for certification the MCR can identify areas for improvement by using the CiP or GPC descriptors or, if further detail is required, through free text. The assessment of the GPCs can be performed by CSs, whilst GPC domains 6-9 might be more relevant to assessment by the AES in some placements.

CSs will be able to best recommend supervision levels because they observe the performance of the trainee in person on a day-to-day basis. The CS group, led by a Lead CS, should meet at the mid-point of a placement to conduct a formative MCR. Through the MCR, they agree which supervision level best describes the performance of a trainee at that time in each of the five CiPs and also identify any areas of the nine GPC domains that require development. It is possible for those who cannot attend the group meeting, or who disagree with the report of the group as a whole, to add their own section (anonymously) to the MCR for consideration by the AES. The AES will provide an overview at the end of the process, adding comments and signing off the MCR.

The MCR uses the principle of highlight reporting, where CSs do not need to comment on every descriptor within each CiP but use them to highlight areas that are above or below the expected level of performance. The MCR can describe areas where the trainee might need to focus development or areas of particular excellence. Feedback must be given for any CiP that is not rated as level IV and in any GPC domain where development is required. Feedback must be given to the trainee in person after each MCR and, therefore, includes a specific feedback meeting with the trainee using the highlighted descriptors within the MCR and/or free text comments.

The mid-point MCR feeds into the mid-point learning agreement meeting. At the mid-point it allows goals to be agreed for the second half of the placement, with an opportunity to specifically address areas where development is required. Towards the end of the placement the MCR feeds into the final review learning agreement meeting, helping to inform the AES report (figure 5). It also feeds into the objective-setting meeting of the next placement to facilitate discussion between the trainee and the next AES.

The MCR, therefore, gives valuable insight into how well the trainee is performing, highlighting areas of excellence, areas of support required and concerns. It forms an important part of detailed,

structured feedback to the trainee at the mid-point and before the end of the placement, and can trigger any appropriate modifications for the focus of training as required. The final formative MCR, together with other portfolio evidence, feeds into the AES report which in turn feeds into the ARCP. The ARCP uses all presented evidence to make the definitive decision on progression.

MCR Rating Scale (CiPs)	Anchor statements	Trainer input at each supervision level			
		Does the trainee perform part or all of the task?	Is guidance required?	Is it necessary for a trainer to be present for the task?	Is the trainee performing at a level beyond that expected of a day one consultant? <sup>c</sup>
<b>Supervision Level I:</b>	Able to observe only: no execution.	no	n/a	n/a	n/a
<b>Supervision Level IIa:</b>	Able and trusted to act with direct supervision: The supervisor needs to be physically present throughout the activity to provide direct supervision.	yes	all aspects	throughout	n/a
<b>Supervision Level IIb:</b>	Able and trusted to act with direct supervision: The supervisor will need to be physically present for part of the activity.  The supervisor needs to guide all aspects of the activity. This guidance may partly be given from another setting.	yes	all aspects	will be necessary for part	n/a
<b>Supervision Level III:</b>	Able and trusted to act with indirect supervision: The supervisor may be required to be physically present on occasion.  The supervisor does not need to guide all aspects of the activity. For those aspects which do need guidance, this may be given from another setting.	yes	some aspects	may be necessary for part	n/a

<b>Supervision Level IV:</b>	Able and trusted to act at the level of a day one consultant.	yes	None <sup>a,b</sup>	None <sup>a, b</sup>	n/a
<b>Supervision Level V:</b>	Able and trusted to act at a level beyond that expected of a day one consultant.	yes	None <sup>a</sup>	None <sup>a</sup>	yes

Table 2: MCR anchor statements and guide to recommendation of appropriate supervision level in each CiP.

- a This equates to the level of practice expected of a day-one consultant in the Health Service. It is recognised that advice from senior colleagues within an MDT is an important part of consultant practice. Achievement of supervision level IV indicates that a trainee is able to work at this level, with advice from their trainer at this level being equivalent to a consultant receiving advice from senior colleagues within an MDT. It is recognised that within the context of a training system that trainees are always under the educational and clinical governance structures of the Health Service.
- b Where the PBA level required by the syllabus is less than level 4 for an operative procedure, it would be expected that mentorship is sought for such procedures and this would fall within the scope of being able to carry out this activity without supervision (level IV), i.e. be a level commensurate with that of a day-one consultant.
- c Achievement of this level across the entirety of an activity would be rare, although free text could describe aspects of an activity where this level has been reached.

In making a supervision level recommendation, CSs should take into account their experience of working with the trainee and the degree of autonomy they were prepared to give the trainee during the placement. They should also take into account all the descriptors of the activities, knowledge and skills listed in the detailed descriptions of the CiPs. If, after taking all this into account, the CSs feel the trainee is able to carry out the activity without supervision (Level IV) then no further detail of this assessment is required, unless any points of excellence are noted. If the trainee requires a degree of supervision to carry out the activity then the CSs should indicate which of the descriptors of the activities, knowledge and skills require further development (to a limit of five items per CiP, so as to allow targets set at feedback to be timely, relevant and achievable). Similarly, if a trainee excels in one or more areas, the relevant descriptors should be indicated. Examples of how the online MCR will look are shown in Figures 6 and 7. Figure 8 describes the MCR as an iterative process involving the trainee, CSs, the AES and the development of specific, relevant, timely and achievable action plans.

Multiple Consultant Report – assessment of the GPCs

1. Professional values and behaviours

Appropriate for phase
Area for development

Your comments...

Descriptors

2. Professional skills

Appropriate for phase
Area for development

Your comments...

Descriptors

3. Professional knowledge

Appropriate for phase
Area for development

Your comments...

Descriptors

4. Capabilities in health promotion and illness prevention

Appropriate for phase
Area for development

Your comments...

Descriptors

5. Capabilities in leadership and team working

Appropriate for phase
Area for development

Your comments, including your development plan for certification...

Descriptors

## 6. Capabilities in patient safety and quality improvement

Appropriate for phase
Area for development

Your comments, including your development plan for certification...

Descriptors

## 7. Capabilities in safeguarding vulnerable groups

Appropriate for phase
Area for development

Your comments...

Descriptors

## 8. Capabilities in education and training

Appropriate for phase
Area for development

Your comments, including your development plan for certification...

Descriptors

## 9. Capabilities in research and scholarship

Appropriate for phase
Area for development

Your comments, including your development plan for certification...

Descriptors

Figure 6: An example of how the GPCs are assessed through the MCR. CSs would consider whether there are concerns areas for development in any of the nine GPC domains. If not, then nothing further need be recorded. If there are areas for development identified then CSs are obliged to provide feedback through the MCR. This feedback can be recorded as free text in the comments box indicated. The Descriptors box expands to reveal descriptors taken from the GPC framework. These can be used as prompts for free text feedback or verbatim as standardised language used to describe professional capabilities.

The image displays a form for assessing Clinical Indicators (CiPs) through the Multiple Consultant Report (MCR). It consists of five identical sections, each corresponding to a different CiP:

- 1. Manages an out-patient clinic**
- 2. Manages the unselected emergency take**
- 3. Manages ward rounds and the ongoing care of in patients**
- 4. Manages an operating list**
- 5. Manages multi-disciplinary working**

Each section contains three main components:

- Supervision level Please select:** An orange button with a dropdown menu for selecting the supervision level.
- Your comments...:** A text input field for providing feedback or comments.
- Descriptors:** An orange button that, when clicked, expands to show a list of descriptors for that CiP.

Figure 7: An example of how the CiPs are assessed through the MCR. The CSs would decide what supervision level to recommend for each of the CiPs and record this for each through the Supervision Level box. If the level recommended is IV or V then no further comment need be recorded, unless the CSs wished to capture areas of particular excellence for feedback. If levels I to III are recommended then trainers are obliged to provide feedback through the MCR. This feedback can be recorded as free text in the comments box indicated. The Descriptors box expands to reveal CiP descriptors. These can be used as prompts for free text feedback or verbatim as standardised language to describe the clinical capabilities.

### 5.3.4 Trainee self-assessment

Trainees should complete the self-assessment in the same way as CSs complete the MCR, using the same form and describing self-identified areas for development with free text or using CiP or GPC descriptors. Reflection for insight on performance is an important development tool and self-recognition of the level of supervision needed at any point in training enhances patient safety. Self-assessments are part of the evidence reviewed when meeting the AES at the mid-point and end of a placement. Wide discrepancy between the self-assessment and the recommendation by CSs in the MCR allows identification of over or under confidence and for support to given accordingly.

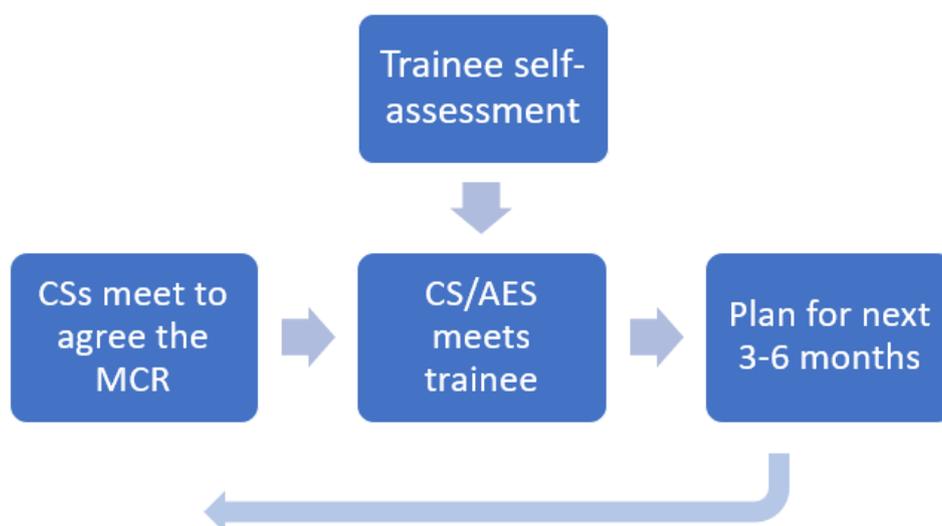


Figure 8: The iterative process of the MCR, showing the involvement of CSs, self-assessment by trainees, face to face meetings between trainees and supervisors and the development of an action plan focused on identified learning needs over the next three to six months of training. Progress against these action plans is reviewed by the AES and at the subsequent MCRs.

### 5.3.5 Workplace-based assessment (WBA)

Each individual WBA is designed to assess a range of important aspects of performance in different training situations. Taken together the WBAs can assess the breadth of knowledge, skills and performance described in the curriculum. They also constructively align with the clinical CiPs and GPCs as shown in appendix 9 and will be used to underpin assessment in those areas of the syllabus central to the specialty i.e. the critical conditions and index procedures, as well as being available for other conditions and operations as determined by the trainee and supervisors and especially where needed in the assessment of a remediation package to evidence progress in areas of training targeted by a non-standard ARCP outcome. The WBAs described in this curriculum have been in use for over ten years and are now an established component of training.

The WBA methodology is designed to meet the following criteria:

- *Validity* – the assessment actually does test what is intended; that methods are relevant to actual clinical practice; that performance in increasingly complex tasks is reflected in the assessment outcome
- *Reliability* - multiple measures of performance using different assessors in different training situations produce a consistent picture of performance over time
- *Feasibility* – methods are designed to be practical by fitting into the training and working environment
- *Cost-effectiveness* – the only significant additional costs should be in the training of trainers and the time investment needed for feedback and regular appraisal, this should be factored into trainer job plans
- *Opportunities for feedback* – structured feedback is a fundamental component
- *Impact on learning* – the educational feedback from trainers should lead to trainees’ reflections on practice in order to address learning needs.

WBAs use different trainers’ direct observations of trainees to assess the actual performance of trainees as they manage different clinical situations in different clinical settings and provide more granular formative assessment in the crucial areas of the curriculum than does the more global

assessment of CiPs in the MCR. WBAs are primarily aimed at providing constructive feedback to trainees in important areas of the syllabus throughout each placement in all phases of training. Trainees undertake each task according to their training phase and ability level and the assessor must intervene if patient safety is at risk. It would be normal for trainees to have some assessments which identify areas for development because their performance is not yet at the standard for the completion of that training.

Each WBA is recorded on a structured form to help assessors distinguish between levels of performance and prompt areas for their verbal developmental feedback to trainees immediately after the observation. Each WBA includes the trainee's and assessor's individual comments, ratings of individual competencies (e.g. *Satisfactory*, *Needs Development* or *Outstanding*) and global rating (using anchor statements mapped to phases of training). Rating scales support the drive towards excellence in practice, enabling learners to be recognised for achievements above the level expected for a level or phase of training. They may also be used to target areas of underperformance. As they accumulate, the WBAs for the critical conditions and index procedures also contribute to the AES report for the ARCP.

WBAs are formative and may be used to assess and provide feedback on all clinical activity. Trainees can use any of the assessments described below to gather feedback or provide evidence of their progression in a particular area. WBAs are only mandatory for the assessment of the critical conditions and index procedures (see appendices 3 and 4). They may also be useful to evidence progress in targeted areas where this is required e.g. for any areas of concern.

WBAs for index procedures and critical conditions will inform the AES report along with a range of other evidence to aid the decision about the trainee's progress. All trainees are required to use WBAs to evidence that they have achieved the learning in the index procedures or critical conditions by certification. However, it is recognised that trainees will develop at different rates, and failure to attain a specific level at a given point will not necessarily prevent progression if other evidence shows satisfactory progress.

The assessment blueprint (appendix 9) indicates how the assessment programme provides coverage of the CiPs, the GPC framework and the syllabus. It is not expected that the assessment methods will be used to evidence each competency and additional evidence may be used to help make a supervision level recommendation. The principle of assessment is holistic; individual GPC and CiP descriptors and syllabus items should not be assessed, other than in the critical conditions and index procedures or if an area of concern is identified. The programme of assessment provides a variety of tools to feedback to and assess the trainee.

#### *Case Based Discussion (CBD)*

The CBD assesses the performance of a trainee in their management of a patient case to provide an indication of competence in areas such as clinical judgement, decision-making and application of medical knowledge in relation to patient care. The CBD process is a structured, in-depth discussion between the trainee and a consultant supervisor. The method is particularly designed to test higher order thinking and synthesis as it allows the assessor to explore deeper understanding of how trainees compile, prioritise and apply knowledge. By using clinical cases that offer a challenge to trainees, rather than routine cases, trainees are 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. The CBD is important for assessing the critical conditions (appendix 3). Trainees are assessed against the standard for the completion of their phase of training.

#### *Clinical Evaluation Exercise (CEX) / CEX for Consent (CEX(C))*

The CEX or CEX(C) assesses a clinical encounter with a patient to provide an indication of competence in skills essential for good clinical care such as communication, history taking, examination and clinical reasoning. These can be used at any time and in any setting when there is a trainee and patient interaction and an assessor is available. The CEX or CEX(C) is important for assessing the critical conditions (appendix 3). Trainees are assessed against the standard for the completion of their phase of training.

#### *Direct Observation of Procedural Skills (DOPS)*

The DOPS assesses the trainee's technical, operative and professional skills in a range of basic diagnostic and interventional procedures during routine surgical practice in wards, outpatient clinics and operating theatres. The procedures reflect the common and important procedures. Trainees are assessed against the standard for the completion of core surgical training.

#### *Multi-source Feedback (MSF)*

The MSF assesses professional competence within a team working environment. It comprises a self-assessment and the assessments of the trainee's performance from a range of colleagues covering different grades and environments (e.g. ward, theatre, out-patients) including the AES. The competencies map to the standards of GMP and enable 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, enabling comparison of the self-assessment with the collated views received from the team and includes their anonymised but verbatim written comments. The AES should meet with the trainee to discuss the feedback on performance in the MSF. Trainees are assessed against the standard for the completion of their training level.

#### *Procedure Based Assessment (PBA)*

The PBA assesses advanced technical, operative and professional skills in a range of specialty procedures or parts of procedures during routine surgical practice in which trainees are usually scrubbed in theatre. The assessment covers pre-operative planning and preparation; exposure and closure; intra-operative elements specific to each procedure and post-operative management. The procedures reflect the routine or index procedures relevant to the specialty. The PBA is used particularly to assess the index procedures (appendix 4). Trainees are assessed against the standard for certification.

#### *Surgical logbook*

The logbook is tailored to each specialty and allows the trainee's competence as assessed by the DOPS and PBA to be placed in context. It is not a formal assessment in its own right, but trainees are required to keep a log of all operative procedures they have undertaken including the level of supervision required on each occasion using the key below. The logbook demonstrates breadth of experience which can be compared with procedural competence using the DOPS and the PBA and will be compared with the indicative numbers of index procedures defined in the curriculum (appendix 4).

Observed (O)  
Assisted (A)  
Supervised - trainer scrubbed (S-TS)  
Supervised - trainer unscrubbed (S-TU)  
Performed (P)  
Training more junior trainee (T)

The following WBAs may also be used to further collect evidence of achievement, particularly in the GPC domains of *Quality improvement, Education and training* and *Leadership and team working*:

#### *Assessment of Audit (AoA)*

The AoA reviews a trainee's competence in completing an audit or quality improvement project. It can be based on documentation or a presentation of a project. Trainees are assessed against the standard for the completion of their phase of training.

#### *Observation of Teaching (OoT)*

The OoT assesses the trainee's ability to provide formal teaching. It can be based on any instance of formalised teaching by the trainee which has been observed by the assessor. Trainees are assessed against the standard for the completion of their phase of training.

The forms and guidance for each WBA method can be found on the ISCP website (see section 7).

### **5.3.6 Intercollegiate Specialty Board Examination**

The ISB examination is governed by the Joint Committee on Intercollegiate Examinations (JCIE, [www.jcie.org.uk](http://www.jcie.org.uk)) on behalf of the four surgical Royal Colleges. The JCIE is served by an Intercollegiate Specialty Board in each specialty. The examination is a powerful driver for knowledge and clinical skill acquisition. It has been in existence for over twenty years and is accepted as an important, necessary and proportionate test of knowledge, clinical skill and the ability to demonstrate the behaviours required by the curriculum. The examination is taken after successful completion of phase 2 and the standard is set at having the knowledge, clinical and professional skills at the level of a day-one consultant in the generality of the specialty, and must be passed in order to complete the curriculum. The examination components have been chosen to test the application of knowledge, clinical skills, interpretation of findings, clinical judgement, decision making, professionalism, and communication skills described within the curriculum. The Examination also assesses components of the CiPs (as shown in appendix 9) and feeds into the same process as WBA for review by the AES and ARCP.

There are two sections to the exam:

- Section 1 is a computer-based assessment comprising two papers taken on the same day. These are both Single Best Answer (SBA) papers designed to test the application of knowledge and clinical reasoning.
- Section 2 comprises the clinical component of the examination. It consists of a series of carefully designed and structured interviews on clinical topics – some scenario-based and others patient-based. The construct of section 2 allows assessment of the application of knowledge, clinical interpretation, decision-making, clinical judgement and professionalism.

Standard setting:

- Section 1 is standard set by the modified Angoff method with one set being added to the Angoff cut score to generate the eligibility to proceed mark. Section 1 is computer marked. Any questions identified as anomalous (possible wrong answers, negative discriminators etc.) are discussed at the standard setting meeting prior to the Angoff and, if necessary, removed.
- The Section 2 clinical and oral components are calibrated prior to the start of each diet. It is independently marked by examiners working in pairs but with reference to the marking descriptors and the standard agreed at the calibration meeting.

Feedback:

Following section 1, candidates will receive a formal letter from the Board Chair confirming the result and a Final Performance Report which shows:

Paper 1 (Single Best Answer) Score %

Paper 2 (Single Best Answer) Score %

Combined Score %

Following section 2, candidates will receive a formal letter from the Board Chair confirming the result. Unsuccessful candidates will also receive a Final Performance Report showing the name of each station and its pass mark, and the mark achieved by a candidate in each of the stations.

Attempts:

Trainees have a maximum of four attempts at each section of the examination with no re-entry. A pass in section 1 is required to proceed to section 2 and must be achieved within two years of the first attempt. The time limit for completion of the entire examination process is seven years. Pro-rata adjustments are permissible to these timescales for LTFT trainees. Trainees in Otolaryngology become eligible to sit section 1 following an ARCP outcome 1 at the end of phase 2 of specialty training). Further details can be found at <https://www.jcie.org.uk/content/content.aspx?ID=12>

### **5.3.7 Annual Review of Competence Progression (ARCP)**

The ARCP is a formal Deanery/HEE Local Office process overseen and led by the TPD. It scrutinises the trainee's suitability to progress through the training programme. It bases its decisions on the evidence that has been gathered in the trainee's learning portfolio during the period between ARCP reviews, particularly the AES report in each training placement. The ARCP would normally be undertaken on an annual basis for all trainees in surgical training. A panel may be convened more frequently for an interim review or to deal with progression issues (either accelerated or delayed) outside the normal schedule. The ARCP panel makes the final summative decision that determines whether trainees are making appropriate to be able to move to the next level or phase of training or achieve certification.

### **5.4 Completion of training in Otolaryngology**

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The following requirements are applied to all trainees completing the curriculum and applying for certification and entry to specialist register.

All seeking certification in Otolaryngology must:

- a) be fully registered with the GMC and have a licence to practise (UK trainees) or be registered with the Medical Council in Ireland (Republic of Ireland trainees)

- b) have successfully passed the ISB examination
- c) have achieved level IV or V in all the CiPs
- d) have achieved the competencies described in the nine domains of the GPC framework
- e) have been awarded an outcome 6 at a final ARCP (if applying for specialist registration through certification).

In order to be awarded an outcome 6 at final ARCP, trainees must be able to satisfy the following specialty specific guidelines:

a) Generic requirements shared between surgical specialities

<p><b>Research</b> - Trainees must provide evidence of having met the relevant requirements for research and scholarship. For UK trainees, this can be found in the GMC's GPC framework. Broadly, this includes capabilities in 4 areas:</p> <ol style="list-style-type: none"> <li>1. The demonstration of evidence-based practice.</li> <li>2. Understanding how to critically appraise literature and conduct literature searches and reviews.</li> <li>3. Understanding and applying basic research principles.</li> <li>4. Understanding the basic principles of research governance and how to apply relevant ethical guidelines to research activities.</li> </ol>	
<p><b>Quality Improvement</b> - evidence of an understanding of, and participation in, audit or service improvement as defined in the curriculum</p>	<p>Trainees must complete or supervise an indicative number of three audit or quality improvement projects during specialty training. In one or more of these, the cycle should be completed.</p>
<p><b>Medical Education and training</b> - evidence of an understanding of, and participation in, medical education and training as defined in the curriculum</p>	<p>Trainees must provide evidence of being trained in the training of others and present written structured feedback on their teaching uploaded to the ISCP portfolio.</p>
<p><b>Management and leadership</b> - evidence of an understanding of management structures and challenges of the health service in the training jurisdiction</p>	<p>Trainees must provide evidence of training in health service management and leadership and having taken part in a management related activity e.g. rota administration, trainee representative, membership of working party etc. or of having shadowed a management role within the hospital.</p>

b) Requirements specific to Otolaryngology

<p><b>Additional courses / qualifications</b> - evidence of having attended specific courses/gained specific qualifications as defined in the curriculum</p>	<p>The Advanced Trauma Life Support® (ATLS®), European Trauma Course, Definitive Surgical Trauma Skills course or equivalent locally provided course(s) meeting the outcomes described.</p>
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<p><b>Specialist conferences</b> - evidence of having attended conferences and meetings as defined in the curriculum appropriate to the specialty</p>	<p>It is recommended that trainees attend national or international meetings during training (e.g. annual meetings of specialty associations or major international equivalents).</p>
<p><b>Clinical experience</b> - evidence of the breadth of clinical experience defined in the specialty syllabus, and experience in one specialty interests.</p>	<p>The time spent in Specialty Training should have been in posts, in a minimum of three units, compliant with the JCST/SAC ENT QIs 1-13. Clinic templates should usually conform to ENT UK guidelines.</p> <p>Trainees must have participated in on-call rotas and managed emergency cases during their training.</p> <p>Trainees should have experience in and have rotated through placements in areas of interest across the range of Otology, Rhinology, Head and Neck, Thyroid and Parathyroid, Laryngology, Paediatric Otolaryngology and General Otolaryngology</p> <p>Trainees should demonstrate competence in one area of special interest as defined in this curriculum.</p>
<p><b>Operative experience</b> - consolidated logbook evidence of the breadth of operative experience defined in the specialty syllabus</p>	<p>Trainees should have undertaken an indicative 2000 operations during training (as principal or main assisting surgeon) in a training unit with an indicative throughput of 500 operations per annum per specialty trainee.</p>
<p><b>Index Procedures</b> - Index procedures are of significant importance for patient safety and to demonstrate a safe breadth of practice.</p>	<p>Trainees must be competent in the management of, and procedures allied to, emergency care. Their logbook should demonstrate indicative numbers below as the principal surgeon:</p> <ul style="list-style-type: none"> <li>• 10 Mastoid operations as main surgeon (P, T, S-TU, S-TS)</li> <li>• 10 major neck operations as main surgeon (including all neck dissections, all open malignant head &amp; neck surgery, parotid and thyroid surgery as main surgeon (P, T, S-TU, S-TS)</li> <li>• 10 tracheostomies as main surgeon (P, T, S-TU, S-TS)</li> </ul>

	<ul style="list-style-type: none"> <li>• 10 Paediatric Endoscopies (including flexible) as main surgeon (P, T, S-TU, S-TS)</li> <li>• 10 Septorhinoplasties as main surgeon (P, T, S-TU, S-TS)</li> <li>• 10 Functional Endoscopic Sinus Surgery procedures as only scrubbed surgeon (P, T, S-TU)</li> <li>• 10 removal of foreign bodies from airway as main surgeon (including nasal foreign bodies and fish bones) (P, T, S-TU, S-TS)</li> </ul> <p>By certification an indicative one or more operation in each group should have been assessed and recorded on ISCP as a level 4 PBA (simulated operations are not accepted for this level 4 evidence requirement) see appendix 4.</p>
<p><b>Critical Conditions</b> - To ensure that trainees have the necessary skills to manage the defined critical conditions.</p>	<p>By certification there should be documented evidence of performance at the level of a day-one consultant by means of the CEX or CBD as appropriate (to level 4 as shown in appendix 3).</p> <ol style="list-style-type: none"> <li>1 Adult airway obstruction (malignancy, inhalation injury etc.)</li> <li>2 Paediatric airway obstruction</li> <li>3 Upper aero-digestive tract foreign body and chemical injury (including batteries)</li> <li>4 Acute infections of the upper aero-digestive tract including tonsillitis &amp; supraglottitis</li> <li>5 Deep neck space abscess and necrotising fasciitis</li> <li>6 Management of tonsillar haemorrhage and other major upper aerodigestive tract haemorrhage</li> <li>7 Blunt and penetrating trauma to the neck</li> <li>8 Epistaxis including sphenopalatine artery ligation</li> <li>9 Complications of acute and chronic sinusitis including orbital cellulitis</li> <li>10 Complications of ear sepsis including acute mastoiditis and necrotising otitis externa</li> </ol>

	11	Acute balance disorder including vestibulopathy, and diagnostic understanding of brain stem stroke and multiple sclerosis
	12	Sudden onset sensorineural hearing loss

Table 3: Requirements for completion of training in Otolaryngology: a) generic requirements shared between all surgical specialties and b) requirements specific to Otolaryngology. Attainment of these requirements contribute to evidence that outcomes of training have been met.

Once these requirements have been met, the ARCP panel may consider the award of outcome 6 having reviewed the portfolio and AES report. Award of outcome 6 allows the trainee to seek recommendation for certification and entry onto the specialist register.

## 6 Recording progress in the ISCP Learning Portfolio

This curriculum is available through the JCST's Intercollegiate Surgical Curriculum Programme (ISCP) training management system at [www.iscp.ac.uk](http://www.iscp.ac.uk). Trainees and all involved with training must register with the ISCP and use the curriculum as the basis of their discussion and to record assessments and appraisals. Both trainers and trainees are expected to have a good knowledge of the curriculum and should use it as a guide for their training programme. Each trainee must maintain their learning portfolio by developing learning objectives, undergoing assessments, recording training experiences and reflecting on their learning and feedback.

The ISCP learning portfolio can be used to build a training record of trainee conduct and practice as follows:

- Trainees can initiate the learning agreement and WBAs directly with supervisors. They can record logbook procedures and other evidence using a variety of forms. They can also link WBAs with critical conditions and index procedures.
- TPDs can validate trainees in their placements, monitor training and manage the ARCP.
- Deanery/HEE Local Office administrators can support the TPD, JCST trainee enrolment and ARCP process.
- AESs can complete trainee appraisal through the learning agreement, monitor trainee portfolios and provide end of placement AES reports.
- CSs can complete the MCR at the mid-point and end of each placement.
- Assessors can record feedback and validate WBAs.
- Other people involved in training can access trainee portfolios according to their role and function.

## Appendix 1: Capabilities in Practice

In each of the CiPs the word 'manage' is defined as clinical assessment, diagnosis, investigation and treatment (both operative and non-operative) and recognising when referral to more specialised or experienced surgeons is required for definitive treatment. Trainees are expected to apply syllabus defined knowledge and skills in straightforward and unusual cases across the breadth of the specialty across all CiPs.

<b>Shared Capability in Practice 1: Manages an out-patient clinic Good Medical Practice Domains 1,2,3,4</b>
<b>Description</b> Manages all the administrative and clinical tasks required of a consultant surgeon in order that all patients presenting as out-patients in the specialty are cared for safely and appropriately.
<b>Example descriptors:</b> <ul style="list-style-type: none"><li>• Assesses and prioritises GP and inter-departmental referrals and deals correctly with inappropriate referrals</li><li>• Assesses new and review patients using a structured history and a focused clinical examination to perform a full clinical assessment, and determines the appropriate plan of action, explains it to the patient and carries out the plan</li><li>• Carries out syllabus defined practical investigations or procedures within the out-patient setting</li><li>• Adapts approach to accommodate all channels of communication (e.g. interpreter, sign language), communicates using language understandable to the patient, and demonstrates communication skills with particular regard to breaking bad news. Appropriately involves relatives and friends</li><li>• Takes co-morbidities into account</li><li>• Requests appropriate investigations, does not investigate when not necessary, and interprets results of investigations in context</li><li>• Selects patients with urgent conditions who should be admitted from clinic</li><li>• Manages potentially difficult or challenging interpersonal situations, including breaking bad news and complaints</li><li>• Completes all required documentation</li><li>• Makes good use of time</li><li>• Uses consultation to emphasise health promotion</li></ul>
<b>Specialty specific requirements:</b> See critical conditions (appendix 3 of the curriculum)
<b>Supervision levels:</b> Level I: Able to observe only Level II: Able and trusted to act with direct supervision: <ul style="list-style-type: none"><li>a) Supervisor present throughout</li><li>b) Supervisor present for part</li></ul>

Level III:	Able and trusted to act with indirect supervision
Level IV:	Able and trusted to act at the level expected of a day-one consultant
Level V:	Able and trusted to act at a level beyond that expected of a day-one consultant

<p><b>Shared Capability in Practice 2:</b>  <b>Manages the unselected emergency take</b>  <b>Good Medical Practice Domains 1,2,3,4</b></p>
<p><b>Description</b></p> <p>Manages all patients with an emergency condition requiring management within the specialty. Able to perform all the administrative and clinical tasks required of a consultant surgeon in order that all patients presenting as emergencies in the specialty are cared for safely and appropriately.</p>
<p><b>Example descriptors:</b></p> <ul style="list-style-type: none"> <li>• Promptly assesses acutely unwell and deteriorating patients, delivers resuscitative treatment and initial management, and ensures sepsis is recognised and treated in compliance with protocol</li> <li>• Makes a full assessment of patients by taking a structured history and by performing a focused clinical examination, and requests, interprets and discusses appropriate investigations to synthesise findings into an appropriate overall impression, management plan and diagnosis</li> <li>• Identifies, accounts for and manages co-morbidity in the context of the surgical presentation, referring for specialist advice when necessary</li> <li>• Selects patients for conservative and operative treatment plans as appropriate, explaining these to the patient, and carrying them out</li> <li>• Demonstrates effective communication with colleagues, patients and relatives</li> <li>• Makes appropriate peri- and post-operative management plans in conjunction with anaesthetic colleagues</li> <li>• Delivers ongoing post-operative surgical care in ward and critical care settings, recognising and appropriately managing medical and surgical complications, and referring for specialist care when necessary</li> <li>• Makes appropriate discharge and follow up arrangements</li> <li>• Carries out all operative procedures as described in the syllabus</li> <li>• Manages potentially difficult or challenging interpersonal situations</li> <li>• Gives and receives appropriate handover</li> </ul>
<p><b>Specialty specific requirements:</b></p> <ul style="list-style-type: none"> <li>• See critical conditions (appendix 3 of the curriculum)</li> <li>• Trauma course (ATLS or equivalent)</li> </ul>
<p><b>Supervision levels:</b></p> <p>Level I: Able to observe only</p> <p>Level II: Able and trusted to act with direct supervision:</p>

- a) Supervisor present throughout
- b) Supervisor present for part

Level III: Able and trusted to act with indirect supervision

Level IV: Able and trusted to act at the level expected of a day-one consultant

Level V: Able and trusted to act at a level beyond that expected of a day-one consultant

### **Shared Capability in Practice 3:**

#### **Manages ward rounds and the on-going care of in-patients**

#### **Good Medical Practice Domains 1,2,3,4**

#### **Description**

Manages all hospital in-patients with conditions requiring management within the specialty. Able to perform all the administrative and clinical tasks required of a consultant surgeon in order that all in-patients requiring care within the specialty are cared for safely and appropriately.

#### **Example descriptors:**

- Identifies at the start of a ward round if there are acutely unwell patients who require immediate attention
- Ensures that all necessary members of the multi-disciplinary team are present, knows what is expected of them and what each other's roles and contributions will be, and contributes effectively to cross specialty working
- Ensures that all documentation (including results of investigations) will be available when required and interprets them appropriately
- Makes a full assessment of patients by taking a structured history and by performing a focused clinical examination, and requests, interprets and discusses appropriate investigations to synthesise findings into an appropriate overall impression, management plan and diagnosis
- Identifies when the clinical course is progressing as expected and when medical or surgical complications are developing, and recognises when operative intervention or re-intervention is required and ensures this is carried out
- Identifies and initially manages co-morbidity and medical complications, referring on to other specialties as appropriate
- Contributes effectively to level 2 and level 3 care
- Makes good use of time, ensuring all necessary assessments are made and discussions held, while continuing to make progress with the overall workload of the ward round
- Identifies when further therapeutic manoeuvres are not in the patient's best interests, initiates palliative care, refers for specialist advice as required, and discusses plans with the patient and their family
- Summarises important points at the end of the ward rounds and ensures all members of the multi-disciplinary team understand the management plans and their roles within them
- Gives appropriate advice for discharge documentation and follow-up

**Specialty specific requirements:**

See critical conditions (appendix 3 of the curriculum)

**Supervision levels:**

Level I: Able to observe only

Level II: Able and trusted to act with direct supervision:

a) Supervisor present throughout

b) Supervisor present for part

Level III: Able and trusted to act with indirect supervision

Level IV: Able and trusted to act at the level expected of a day-one consultant

Level V: Able and trusted to act at a level beyond that expected of a day-one consultant

**Shared Capability in Practice 4:****Manages an operating list****Good Medical Practice Domains 1,2,3,4****Description**

Manages all patients with conditions requiring operative treatment within the specialty. Able to perform all the administrative and clinical tasks required of a consultant surgeon in order that all patients requiring operative treatment receive it safely and appropriately.

**Example descriptors:**

- Selects patients appropriately for surgery, taking the surgical condition, co-morbidities, medication and investigations into account, and adds the patient to the waiting list with appropriate priority
- Negotiates reasonable treatment options and shares decision-making with patients
- Takes informed consent in line with national legislation or applies national legislation for patients who are not competent to give consent
- Arranges anaesthetic assessment as required
- Undertakes the appropriate process to list the patient for surgery
- Prepares the operating list, accounting for case mix, skill mix, operating time, clinical priorities, and patient co-morbidity
- Leads the brief and debrief and ensures all relevant points are covered for all patients on the operating list
- Ensures the WHO checklist (or equivalent) is completed for each patient at both the beginning and end of each procedure
- Understands when prophylactic antibiotics should be prescribed and follows local protocol
- Synthesises the patient's surgical condition, the technical details of the operation, co-morbidities and medication into an appropriate operative plan for the patient
- Carries out the operative procedures to the required level for the phase of training as described in the specialty syllabus

- Uses good judgement to adapt operative strategy to take account of pathological findings and any changes in clinical condition
- Undertakes the operation in a technically safe manner, using time efficiently
- Demonstrates good application of knowledge and non-technical skills in the operating theatre, including situation awareness, decision-making, communication, leadership, and teamwork
- Writes a full operation note for each patient, ensuring inclusion of all post-operative instructions
- Reviews all patients post-operatively
- Manages complications safely, requesting help from colleagues where required

**Specialty specific requirements:**

- Trainees should have undertaken an indicative 2000 operations during training (as principal or main assisting surgeon) in a training unit with an indicative throughput of 500 operations per annum per specialty trainee
- Index procedures performed as primary surgeon ('P, ST-S, ST-U, T') with PBA evidence of achieving the indicative level in the majority of index cases as described in appendix 4 of the curriculum.

**Supervision levels:**

Level I: Able to observe only

Level II: Able and trusted to act with direct supervision:

- a) Supervisor present throughout
- b) Supervisor present for part

Level III: Able and trusted to act with indirect supervision

Level IV: Able and trusted to act at the level expected of a day-one consultant

Level V: Able and trusted to act at a level beyond that expected of a day-one consultant

**Shared Capability in Practice 5:  
Manages multi-disciplinary working  
Good Medical Practice Domains 1,2,3,4**

**Description**

Manages all patients with conditions requiring inter-disciplinary management (or multi-consultant input as in trauma or fracture meetings in Trauma and Orthopaedic Surgery) including care within the specialty. Able to perform all the administrative and clinical tasks required of a consultant surgeon in order that safe and appropriate multi-disciplinary decisions are made on all patients with such conditions requiring care within the specialty.

**Example Descriptors:**

Appropriately selects patients who require discussion at the multi-disciplinary team

Follows the appropriate administrative process

Deals correctly with inappropriate referrals for discussion (e.g. postpones discussion if information is incomplete or out-of-date)

Presents relevant case history, recognising important clinical features, co-morbidities and investigations

Identifies patients with unusual, serious or urgent conditions

Engages constructively with all members of the multi-disciplinary team in reaching an agreed management decision, taking co-morbidities into account, recognising when uncertainty exists, and being able to manage this

Effectively manages potentially challenging situations such as conflicting opinions

Develops a clear management plan and communicates discussion outcomes and subsequent plans by appropriate means to the patient, GP and administrative staff as appropriate

Manages time to ensure the case list is discussed in the time available

Arranges follow up investigations when appropriate and knows indications for follow up

**Specialty specific requirements:** None

**Supervision levels:**

Level I: Able to observe only

Level II: Able and trusted to act with direct supervision:

a) Supervisor present throughout

b) Supervisor present for part

Level III: Able and trusted to act with indirect supervision

Level IV: Able and trusted to act at the level expected of a day-one consultant

Level V: Able and trusted to act at a level beyond that expected of a day-one consultant

## Appendix 2: Otolaryngology Syllabus

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The syllabus is organised by topics which are the presenting conditions of patients in relation to the specialty. Formative WBAs may be used to assess and provide feedback on any areas of clinical activity. However, other than for the critical conditions, index procedures or where they have been identified to address a concern, WBAs are optional and trainees, therefore, do not need to use WBAs to evidence their learning against each syllabus topic.

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

In the two phases of specialty training the following methodology is used to define the relevant depth of knowledge required of the surgical trainee. Unless otherwise stated in this document, the knowledge and clinical skills listed below are expected to be at level 4 at the end of phase 2.

- 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. Unless otherwise stated in this document, the clinical skills listed below are expected to be at level 4 at the end of phase 2.

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.

**Please note the following abbreviations are used in the syllabus below.**

- P = Phase  
 SI = Special Interest  
 Ot = Otolology  
 Rh = Rhinology  
 HaN = Head and Neck  
 TaP = Thyroid and Parathyroid  
 La = Laryngology  
 PO = Paediatric Otolaryngology  
 GO = General Otolaryngology as a Special Interest

### PAEDIATRIC OTOLARYNGOLOGY

Topic	Foreign bodies in the ear canal and UADT	P2	P3	SI = PO	SI + GO
<b>Category</b>	Paediatric Otolaryngology				
<b>Sub-category:</b>	Foreign bodies in the ear nose and throat				
<b>Objective</b>	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. <i>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</i>				
<b>Knowledge</b>	Anatomy and physiology of the paediatric airway Recognition of anatomical differences between the adult and paediatric airway. Recognition of the clinical features of foreign bodies in the ear, nose, and throat Knowledge of the natural history and the complications associated with foreign bodies. Concept of the shared airway and differing anaesthetic techniques				
<b>Clinical Skills</b>	HISTORY AND EXAMINATION Ability to take a thorough history from the child/carer Otoscopy Anterior rhinoscopy Flexible pharyngolaryngoscopy  DATA INTERPRETATION				

	Assessment of plain radiography (e.g. chest x-ray and soft tissue neck x-ray).				
	<b>PATIENT MANAGEMENT</b> Recognition of the clinical signs of respiratory distress in children Emergency airway care in conjunction with anaesthetists and paediatricians.	3	3	4	4
<b>Technical Skills and Procedures</b>	Otomicroscopy and removal of foreign body	4	4	4	4
	Removal of nasal foreign body and examination with paediatric and rigid scopes	4	4	4	4
	Pharyngo-oesophagoscopy and foreign body removal	4	4	4	4
	Rigid bronchoscopy and foreign body removal from larynx and trachea	2	2	4	4

<b>Topic</b>	<b>Trauma to the ear, upper aero digestive tract and neck</b>	<b>P2</b>	<b>P3</b>	<b>SI = PO</b>
<b>Category</b>	Paediatric Otolaryngology			
<b>Sub-category:</b>	Trauma to the head and neck			
<b>Objective</b>	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. <i>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</i>			
<b>Knowledge</b>	Anatomy of the head and neck in children Recognition of anatomical differences between the adult and paediatric airway Mechanisms of trauma to the facial skeleton and soft tissues Know the causes and presentation of nasal septal haematoma Know the causes and presentation of ear trauma (external, middle and inner) Know the causes and presentation of trauma to the neck, pharynx and larynx Knowledge of common aetiologies and awareness of the possible presentations of non-accidental injury to the ENT department. Understand how child abuse is classified, how it may present to otolaryngologists and the mechanism of onward referral and management			

<b>Clinical Skills</b>	<p>HISTORY AND EXAMINATION</p> <p>Ability to take a thorough history from child/parent</p> <p>Assessment of the external nose and nasal airway</p> <p>Clinical examination of the ear</p> <p>Assessment of the neck including the airway</p> <p>Otoscopy</p> <p>DATA INTERPRETATION</p> <p>Age appropriate hearing test, tympanometry</p> <p>PATIENT MANAGEMENT</p> <p>Recognition of the signs of respiratory distress in a child</p> <p>Resuscitation of a child in hypovolaemic shock secondary to bleeding</p> <p>Aware of the local protocol for the reporting of suspected non-accidental injury</p>			
<b>Technical Skills and Procedures</b>	<p>Nasal fracture manipulation</p> <p>Laryngoscopy, Pharyngoscopy</p> <p>Drainage of septal haematoma</p> <p>Drainage of haematoma of pinna</p> <p>Exploration of neck</p> <p>Paediatric Tracheostomy</p>	2 2	3 2	4 4

<b>Topic</b>	<b>Epistaxis in a child</b>	<b>P2</b>	<b>P3</b>	<b>SI = PO</b>
<b>Category</b>	Paediatric Otolaryngology			
<b>Sub-category:</b>	Epistaxis			
<b>Objective</b>	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			
<b>Knowledge</b>	<p>Nasal anatomy &amp; physiology</p> <p>Pathophysiology, epidemiology, &amp; natural history of paediatric epistaxis</p> <p>Current approach to treatment of epistaxis to include awareness of the evidence base for current treatment regimens.</p> <p>Understand the aetiologies of paediatric epistaxis (local including nasopharyngeal angiofibroma, and systemic including coagulopathies)</p> <p>Know the relevant investigation and treatments of paediatric epistaxis</p>			
<b>Clinical Skills</b>	<p>HISTORY AND EXAMINATION</p> <p>Ability to take a thorough history from the child/carer</p> <p>Anterior Rhinoscopy</p> <p>Flexible Nasendoscopy</p> <p>DATA INTERPRETATION</p> <p>Interpretation of full blood count &amp; other haematological investigations; awareness of significance of coagulation tests</p> <p>PATIENT MANAGEMENT</p>			

	Medical and surgical management of epistaxis			
<b>Technical Skills and Procedures</b>	Nasal cautery	4	4	4
	EUA nose	4	4	4
	Appropriate nasal packing in a child (see also adult rhinology section)	4	4	4
	Paediatric SPA ligation	1	1	2
	Open and closed procedures for treatment of angiofibroma	1	1	1

Topic	<b>Rhinosinusitis; orbital and intracranial complications of rhinosinusitis</b>	P2	P3	SI = PO	SI = GO
<b>Category</b>	Paediatric Otolaryngology				
<b>Sub-category:</b>	Nose and Sinus infections				
<b>Objective</b>	Optimum recognition and management of children with rhinosinusitis; particularly complicated sinus disease e.g. subperiosteal abscess, intracranial sepsis. <i>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</i>				
<b>Knowledge</b>	Nasal anatomy & pathophysiology Epidemiology, natural history & presenting symptoms of rhinosinusitis in children Current approach to treatment of infective rhinosinusitis to include awareness of the evidence base for current treatment regimens. Recognition and competence in the emergency management of the complications of rhinosinusitis.				
<b>Clinical Skills</b>	HISTORY AND EXAMINATION Ability to take a thorough history from the child/carer Anterior Rhinoscopy Flexible Nasendoscopy Otoscopy DATA INTERPRETATION Awareness of imaging techniques Assessment of abnormalities on CT scanning of the paranasal sinuses and MR brain.  PATIENT MANAGEMENT Medical and surgical management of rhinosinusitis and its complications.	3	3	4	4
<b>Technical Skills and Procedures</b>	EUA Nose Endoscopic Nasal Polypectomy External drainage of subperiosteal abscess External drainage of the frontal sinus Endoscopic drainage of periorbital abscess External drainage of frontal sinus	4 2 1 1 1 1	4 3 3 2 4 1	4 4 4 2 4 2	4 4 4 2 4 2

Topic	Airway pathology in childhood	P2	P3	SI = PO
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. <i>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</i>			
Knowledge	Anatomy of the paediatric airway, and differences between the adult and child.			
	Physiology of airway obstruction (Poiseuille's law, Reynolds number) Clinical features of airway obstruction Clinical measures to determine severity of obstruction Know the causes, presenting symptoms of airway pathology in children, 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, tracheobronchomalacia, acute epiglottitis and laryngotracheobronchitis (croup). Understand the genetic disorders associated with airway pathology in children	2	2	4
	Understand the role of laryngopharyngeal reflux in airway pathology in children	2	2	4
Clinical Skills	HISTORY AND EXAMINATION Ability to take a thorough history from the child/carer. Assessment of the airway in a child Flexible pharyngolaryngoscopy.			
	DATA INTERPRETATION 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 Medical management in the acute and elective situation e.g. steroids, adrenaline, reflux. Emergency airway care in conjunction with anaesthetist and paediatrician.	3 3	3 3	4 4
Technical Skills and Procedures	Paediatric flexible pharyngolaryngoscopy in the outpatients	4	4	4
	Paediatric tracheostomy emergency and elective	2	3	3
	Paediatric tracheostomy care including tube change	2	3	4
	Diagnostic rigid airway endoscopy	2	3	4
	Therapeutic rigid airway endoscopy. Laryngotracheal reconstruction	1 1	1 1	3 2

	Balloon dilatation for subglottic stenosis	1	1	2
	Management of subglottic cysts	1	1	2

Topic	The Drooling Child	P2	P3	SI = PO
Category	Paediatric Otolaryngology			
Sub-category:				
Objective	<i>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</i>			
Knowledge	Anatomy of the major and minor salivary glands			
	Anatomy of the oral cavity			
	Physiology of salivation			
Knowledge	Know the causes and predisposing factors (including syndromes) for drooling			
	Understand how multidisciplinary input is used in the management of drooling children.	3	3	4
Knowledge	Understand the principles of non medical, medical and surgical management of drooling children	3	3	4
	Undertake a comprehensive history and examination of a child who presents with drooling			
Clinical Skills	Be able to communicate an effective management plan to the patient and his or her carer			
	Work with colleagues from other specialities and disciplines to provide effective care for children presenting with drooling.	3	3	4
Technical Skills and Procedures	Tonsillectomy	4	4	4
	Adenoidectomy	4	4	4
	Flexible nasendoscopy	4	4	4
	Submandibular gland excision	2	2	2
	Transposition of submandibular ducts	1	1	2
	Neuromuscular blockade	1	1	2
	Sublingual gland excision	1	1	2
	Parotid and submandibular duct ligation	1	1	2
Botox to parotid and submandibular glands	1	1	2	

Topic	Acute tonsillitis, Diseases of the adenoids and their complications	P2	P3	SI = PO
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. <i>This module gives some idea of</i>			

	<i>the breadth and depth of required knowledge and surgical skills. This list should not be considered to be fully inclusive or exhaustive</i>			
<b>Knowledge</b>	Anatomy of the oral cavity, oropharynx and nasopharynx Microbiology of the oral cavity, oropharynx and nasopharynx Epidemiology, classification, aetiology and natural history of adenotonsillar disease. Thorough understanding of the evidence base that underpins current treatment approaches. Awareness of controversies. Understanding of specific management requirements in the very young, special needs and syndromic children			
<b>Clinical Skills</b>	HISTORY AND EXAMINATION Ability to take a through history from child/parent. Otoscopy Examination of the oral cavity and oropharynx Ability to recognise the child with possible OSA.  DATA INTERPRETATION Clinical assessment of the nasal airway  PATIENT MANAGEMENT Medical and surgical treatment. Management of complications both of the disease (e.g. peritonsillar abscess) and of treatment			
<b>Technical Skills and Procedures</b>	Tonsillectomy Adenoidectomy Arrest of adenotonsillar bleeding as an emergency Suction adenoidectomy Tonsillotomy Experience with CPAP and other non invasive options	4 4 4 4 3 1	4 4 4 4 3 1	4 4 4 4 4 2

<b>Topic</b>	<b>ENT-related syndromes and cleft palate</b>	<b>P2</b>	<b>P3</b>	<b>SI = PO</b>
<b>Category</b>	Paediatric Otolaryngology			
<b>Sub-category:</b>	Congenital deformities affecting the head and neck			
<b>Objective</b>	Appropriate primary management of children with ENT related syndromes and cleft palate, awareness of the principles and challenges that underpin long-term care. <i>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</i>			
<b>Knowledge</b>	Embryology of the head and neck, including palate. Anatomy of the head and neck in children Recognition of the common ENT related syndromes and associations (e.g. Down's, Treacher Collins, Pierre Robin, Goldenhar, BOR, CHARGE, craniosynostosis). Knowledge of the ENT manifestations of the conditions listed above	3 3	3 3	4 4

	Knowledge of the general clinical problems encountered in these conditions with particular reference to safety of anaesthesia. Basic understanding of the underlying genetics of these conditions.	2 2	2 2	4 3
<b>Clinical Skills</b>	<b>HISTORY AND EXAMINATION</b> Ability to take a thorough history from the patient or carer. Targeted examination of the child based on knowledge of the ENT manifestations of the condition.  <b>DATA INTERPRETATION</b> Interpretation of age-appropriate assessment of hearing and overnight pulse oximetry Recognition of abnormalities on imaging  <b>PATIENT MANAGEMENT</b> Able to participate in the multidisciplinary approach to children with complex needs. Management of airway obstruction in children with craniofacial abnormalities in conjunction with anaesthetists . Management of OME in children with cleft palate or Downs syndrome	3 3 3	3 3 3	3 3 3
<b>Technical Skills and Procedures</b>	Myringotomy & ventilation tube insertion Flexible pharyngolaryngoscopy Rigid airway endoscopy Paediatric tracheostomy	4 4 4 1	4 4 4 2	4 4 4 3

<b>Topic</b>	<b>Congenital and acquired neck masses</b>	<b>P2</b>	<b>P3</b>	<b>SI = PO</b>
<b>Category</b>	Paediatric Otolaryngology			
<b>Sub-category:</b>	Neck Masses			
<b>Objective</b>	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. <i>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</i>			
<b>Knowledge</b>	Anatomy of the head and neck and upper mediastinum. Applied embryology of thyroid gland with relation to thyroglossal cysts Applied embryology of the branchial arches. Anatomy of the neck spaces and understanding of the presentation, clinical features and primary management of abscesses and collections in these spaces Classification of vascular malformations and awareness of treatment options			

	<p>Knowledge of the clinical presentation and management of the commoner congenital abnormalities (e.g. cystic hygroma, teratoma, branchial abnormalities, thyroglossal cysts, lingual thyroid)</p> <p>Awareness of the infective causes of neck lumps in children. (e.g. TB, HIV, other viral)</p> <p>Management of persistent cervical lymphadenopathy and the appropriate use of investigations and surgical intervention.</p> <p>Knowledge of the possible airway complications of neck masses and their management.</p>	3	3	4
<b>Clinical Skills</b>	<p><b>HISTORY AND EXAMINATION</b></p> <p>Ability to take a thorough history from a patient or carer</p> <p>Systematic examination of the child with particular reference to the neck</p> <p>Be able to identify the signs of airway obstruction in a child</p> <p><b>DATA INTERPRETATION</b></p> <p>Be able to identify the most appropriate imaging options available e.g. sonography, CT, MR scanning.</p> <p>Interpretation of virology and microbiology investigations.</p> <p>Interpretation of head and neck images.</p> <p><b>PATIENT MANAGEMENT</b></p> <p>Be able to identify the most appropriate imaging options available e.g. sonography, CT, MR scanning.</p> <p>Surgical and non-surgical treatment options for the management of neck masses.</p> <p>Be able to work in a multidisciplinary team.</p>	3	3	4
<b>Technical Skills and Procedures</b>	<p>Flexible pharyngolaryngoscopy</p> <p>Incision &amp; drainage neck abscess</p> <p>Biopsy neck node</p> <p>Excision thyroglossal cyst</p> <p>Diagnostic rigid airway endoscopy</p> <p>Paediatric tracheostomy</p> <p>Experience with EXIT procedures and CHAOS</p>	4 4 4 2 2 2 1	4 4 4 2 2 2 1	4 4 4 4 4 3 1

<b>Topic</b>	<b>Language delay and dysphonia in childhood</b>	<b>P2</b>	<b>P3</b>	<b>SI = PO</b>
<b>Category</b>	Paediatric Otolaryngology			
<b>Sub-category:</b>	Speech and language development			
<b>Objective</b>	Awareness of the aetiology of language delay. Awareness of congenital and acquired laryngeal disorders affecting speech. <i>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</i>			
<b>Knowledge</b>	Anatomy of the larynx in children and the physiology of voice production.			

	The normal developmental milestones with an emphasis on speech and language acquisition. Common causes of delayed speech Understanding of how hearing loss impacts on language acquisition Management of laryngeal pathologies. Understanding of age appropriate hearing tests. Understanding of the controversies in the management of tongue tie.	3	3	4
<b>Clinical Skills</b>	HISTORY AND EXAMINATION Ability to take a through history from child/carer Otoscopy Flexible pharyngolaryngoscopy  DATA INTERPRETATION Age appropriate hearing test Tympanometry  PATIENT MANAGEMENT Multidisciplinary approach in the management of children with speech and other developmental problems	3	3	4
<b>Technical Skills and Procedures</b>	Flexible nasendoscopy and pharyngolaryngoscopy Division of tongue tie Ventilation tube insertion	4 4 4	4 4 4	4 4 4

Topic	Head and neck malignancy in childhood	P2	P3	SI = PO
<b>Category</b>	Paediatric Otolaryngology			
<b>Sub-category:</b>	Oncology			
<b>Objective</b>	Awareness of the epidemiology, presentation and principles of management of malignant disease in the head and neck. <i>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</i>			
<b>Knowledge</b>	Knowledge of the common malignancies of the head and neck in childhood Knowledge of presentation, investigations and management options in childhood cancers. 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. 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.	3 3	3 3	4 4
<b>Clinical Skills</b>	HISTORY AND EXAMINATION Ability to take a through history from child/carer Examination of the head and neck Examination of the cranial nerves			

	Otoscopy Flexible pharyngolaryngoscopy			
	PATIENT MANAGEMENT Multidisciplinary approach to the management of childhood cancer Know the range of diagnostic tests available particularly imaging	3	3	4
<b>Technical Skills and Procedures</b>	Flexible pharyngolaryngoscopy	4	4	4
	Neck node biopsy after liaison with regional oncology services	3	3	4
	Biopsy of tumours after liaison with regional oncology services	3	3	4
	Paediatric thyroid surgery	1	1	1
	Paediatric neck dissection	1	1	1
	Paediatric salivary gland surgery	1	1	1

<b>Topic</b>	<b>Congenital abnormalities of the ear</b>	<b>P2</b>	<b>P3</b>	<b>SI = PO</b>
<b>Category</b>	Paediatric Otolaryngology			
<b>Sub-category:</b>	Disorders of the external ear in children			
<b>Objective</b>	Recognition and classification of the principle congenital anomalies of the ear. <i>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</i>			
<b>Knowledge</b>	Understanding of the anatomy & embryology of the ear and related structures Physiology of hearing Knowledge of the clinical problems associated with dysplasia of the ear			
	Knowledge of common grading systems for microtia and atresia. Knowledge of bone anchored auricular prosthesis and autologous pinna reconstruction.	2 2	2 2	4 4
<b>Clinical Skills</b>	HISTORY AND EXAMINATION Ability to take a thorough history from the child/carer Inspection of the external ear and recognition of main anomalies; Otoscopy Clinical assessment of hearing			
	DATA INTERPRETATION Age-appropriate assessment of hearing; Tympanometry; PATIENT MANAGEMENT Demonstrate the ability to present the options for the rehabilitation of hearing loss in microtia; Appropriate referral for ear reconstruction/prostheses;	3 3	3 3	4 4

	Counselling of child and carers with microtia and other major anomalies of the external ear.			
<b>Technical Skills and Procedures</b>	Otomicroscopy	4	4	4
	Excision of preauricular sinus	2	2	4
	Excision of simple lesions in and around the external ear	4	4	4
	Surgery for prominent ears	2	2	2
	Bone anchored hearing aid	1	1	1
	Surgical management of 1 <sup>st</sup> branchial arch anomalies	1	1	1
	Implant placement for prosthetic ear in microtia	1	1	1
	Other implants for hearing loss including ME implants	1	1	1

<b>Topic</b>	<b>Congenital deafness</b>	<b>P2</b>	<b>P3</b>	<b>SI = PO</b>
<b>Category</b>	Paediatric Otolaryngology			
<b>Sub-category:</b>	Deafness excluding otitis media and its complications			
<b>Objective</b>	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. <i>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</i>			
<b>Knowledge</b>	Embryology of the ear including congenital deformities of the ear and their relationship to deafness Physiology of hearing Knowledge of the molecular basis of genetic, syndromic and non-syndromic deafness Knowledge of acquired causes including congenital infections (e.g. CMV, rubella) Fundamental understanding of age appropriate audiological testing including universal neonatal screening (OAE,ABR). Appropriate investigations for the congenitally deaf child (bilateral or unilateral) e.g. TORCH screen, dipstix for haematuria, MRI, genetic review Multidisciplinary approach to the rehabilitation of the deaf child (bilateral and unilateral). Knowledge of rehabilitative options including hearing aids Knowledge of candidacy criteria for cochlear implantation and nature of surgery involved. Awareness of the range of investigative options available including imaging (sonography, CT, MR scanning)	3	3	4
<b>Clinical Skills</b>	HISTORY AND EXAMINATION Ability to take a thorough history from child/parent. Otoscopy Clinical assessment of hearing  DATA INTERPRETATION Age appropriate hearing test			

	Tympanometry	3	3	4
	PATIENT MANAGEMENT Appropriate referral for hearing aids			
<b>Technical Skills and Procedures</b>	Microscopic examination of the ear	4	4	4
	Myringotomy & ventilation tube	4	4	4
	Cochlear implant	1	1	1

Topic	The Dizzy Child	P2	P3	SI = PO
<b>Category</b>	Paediatric Otolaryngology			
<b>Sub-category:</b>	Dizziness			
<b>Objective</b>	To be competent in the assessment, investigation and management of a child presenting with dizziness			
<b>Knowledge</b>	Anatomy of the ear and vestibular system Physiology of balance Knowledge of the causes of balance disorders in children	3	3	3
	Knowledge of the genetic causes of hearing loss associated with vestibular symptoms e.g. Ushers, NF2, Jervell-Lange-Nielson Knowledge of appropriate investigations and subsequent management of vestibular disorders	3	3	3
<b>Clinical Skills</b>	HISTORY AND EXAMINATION Ability to take a thorough history from the child/carer Otoscopy Clinical assessment of vestibular function e.g. Dix Hallpike, head thrust, Unterbergers Neurological examination including cranial nerves			
	DATA INTERPRETATION Age appropriate hearing test Tympanogram			
	Interpretation of vestibular testing-posturography, calorics, VEMP's	3	3	4
	Identification of significant abnormalities from diagnostic imaging e.g. MRI, CT	3	3	4
	PATIENT MANAGEMENT Explanation of diagnosis to child and family Commencement of conservative, medical or surgical management of underlying vestibular pathology Appropriate referral to allied health professionals or other specialities	4 3	4 3	4 4
<b>Technical Skills and Procedures</b>	Myringotomy and ventilation tube insertion	4	4	4
	Cholesteatoma surgery	2	2	2

Topic	Otitis media (acute, chronic and with effusion) and complications and conditions of the external auditory canal	P2	P3	SI = PO
Category	Paediatric Otolaryngology			
Sub-category:	Otitis media and its complications			
Objective	Definitive secondary-care management of middle and external ear disease and its complications. <i>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</i>			
Knowledge	Anatomy of the external and middle ear cleft and surrounding structures Physiology of hearing Epidemiology, classification, aetiology and natural history of each variant of otitis media. Know the indications for imaging Know the evidence base which underpins current treatment approaches. Demonstrate an understanding of the surgical management of cholesteatoma and the complications of otitis media Knowledge of the indications for, and surgical principles of, bone anchored hearing aids and middle ear implants.			
Clinical Skills	HISTORY AND EXAMINATION Ability to take a through history from child/parent Otoscopy Neurological examination including cranial nerves Clinical assessment of hearing.  DATA INTERPRETATION Age appropriate hearing tests (including ABR, OAE, VRA, play audiometry) Tympanometry Identification of significant abnormalities from diagnostic imaging e.g. CT scan, MRI Laboratory investigations e.g. blood tests, bacteriology results  PATIENT MANAGEMENT Medical, conservative and surgical management Appropriate referrals and team working for children with complications of acute otitis media			
Technical Skills and Procedures	Otomicroscopy and aural toilet Ventilation tube insertion Myringoplasty Ossiculoplasty Cortical Mastoidectomy Cholesteatoma surgery Bone anchored hearing aid	4 4 3 1 4 2 1	4 4 4 1 4 2 1	4 4 4 2 4 2 2

<b>Topic</b>	<b>Facial palsy in childhood</b>	<b>P2</b>	<b>P3</b>	<b>SI = PO</b>
<b>Category</b>	Paediatric Otolaryngology			
<b>Sub-category:</b>	Facial Palsy			
<b>Objective</b>	Safe primary management of children with facial palsy, recognition of clinical pathologies that present with facial palsy. <i>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</i>			
<b>Knowledge</b>	Anatomy of the facial nerve, and related structures knowledge of the aetiologies (congenital and acquired) of facial palsy. Knowledge of the initial investigations and management of a child with facial palsy Knowledge of the natural history of childhood facial palsy. Know when to refer to tertiary centre. Awareness of the range of diagnostic tests and the principles that govern their use e.g. electroneuronography, imaging of the facial nerve	2	2	3
<b>Clinical Skills</b>	<b>HISTORY AND EXAMINATION</b> Ability to take a history from child/parent Otoscopy Examination of the head and neck Assessment of the cranial nerves in children and grading of facial palsy Clinical assessment of hearing  <b>DATA INTERPRETATION</b> Interpretation of specific investigations e.g. electroneuronography  <b>PATIENT MANAGEMENT</b> Pharmacological management (e.g. steroids, anti-viral agents) Eye protection	2	2	4
<b>Technical Skills and Procedures</b>	Myringotomy and ventilation tube insertion Cortical mastoidectomy & Drainage of mastoid abscess Cholesteatoma surgery	4 4 2	4 4 2	4 4 2

Topic	Rhinitis	P2	P3	SI = PO
Category	Paediatric Otolaryngology			
Sub-category:	Inflammatory nasal disease (including allergic rhinitis)			
Objective	Optimum recognition and management of children with rhinitis. <i>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</i>			
Knowledge	Anatomy and embryology of the nose and sinuses. Nasal physiology Knowledge of the pathophysiology, epidemiology, symptomatology and natural history of rhinitis Know the basic science of allergy Knowledge of the scientific principles of common investigations e.g skin prick tests, RAST	3	3	4
	Knowledge of the evidence base for current treatment of allergic rhinitis Knowledge of imaging techniques; assessment of abnormalities on CT scanning of the paranasal sinuses Understanding of scientific basis and methodology behind desensitisation in allergy	3	3	4
Clinical Skills	HISTORY AND EXAMINATION Ability to take a thorough history from the child/carer Anterior Rhinoscopy Flexible Nasendoscopy Otoscopy			
	DATA INTERPRETATION Skin prick tests for allergies; Blood tests for allergies; immunological tests, ciliary function tests.  PATIENT MANAGEMENT Conservative, medical and surgical management of rhinitis	2	3	4
Technical Skills and Procedures	Turbinate surgery	4	4	4
	EUA Nose & PNS	4	4	4
	Nasal biopsy	4	4	4
	Advanced FESS in paediatric patient	1	1	2

Topic	Nasal Obstruction	P2	P3	SI = PO
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. <i>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</i>			
Knowledge	Anatomy and embryology of the nose and sinuses. Nasal physiology Knowledge of the aetiology, clinical features and management of nasal polyps in children including their association with cystic fibrosis Knowledge of the aetiologies of nasal obstruction at birth, in infancy and in later childhood e.g. choanal atresia, rhinitis, encephocele, glioma, angiofibroma. Knowledge of the investigations (including imaging) and treatment of the above conditions. Knowledge of related systemic conditions involving the nose e.g. Wegeners granulomatosis			
Clinical Skills	HISTORY AND EXAMINATION Ability to take a thorough history from the child or carer Anterior Rhinoscopy Flexible Nasendoscopy Otoscopy  DATA INTERPRETATION Assessment of abnormalities on CT scanning of the paranasal sinuses 2. Immunological tests, ciliary function tests  PATIENT MANAGEMENT Medical and surgical management of nasal polyposis Investigation of nasal masses			
Technical Skills and Procedures	Endoscopic Nasal Polypectomy Endoscopic sinonasal surgery Nasal biopsy Examination nose and PNS Choanal atresia surgery Surgery to congenital pyriform aperture stenosis Open and closed procedures for angiofibroma Nasal stenting	3 2 2 4 4 1 1 1 1	3 2 2 4 4 1 1 1 1	4 2 4 4 2 1 2 1

<b>Topic</b>	<b>Obstructive sleep apnoea</b>	<b>P2</b>	<b>P3</b>	<b>SI = PO</b>
<b>Category</b>	Paediatric Otolaryngology			
<b>Sub-category:</b>	Airway obstruction in childhood			
<b>Objective</b>	Optimum recognition and management of children with possible obstructive sleep apnoea. <i>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</i>			
<b>Knowledge</b>	Anatomy of the upper airway Physiology of sleep Knowledge of multi-level obstruction Knowledge of the concept of sleep disordered breathing Knowledge of the complications of upper airway obstruction Knowledge of appropriate investigations and treatment. Knowledge of the relevance of co-morbidities Assessment of low versus high risk patients and appropriate referral	3	3	3
<b>Clinical Skills</b>	HISTORY AND EXAMINATION Ability to take a thorough history from the child/carer Examination of the oral cavity, oropharynx and chest wall Anterior Rhinoscopy Flexible Nasendoscopy  DATA INTERPRETATION Interpretation of sleep studies ECG/CXR/echo manifestations  PATIENT MANAGEMENT Conservative, medical and surgical management of OSA	1	1	1
<b>Technical Skills and Procedures</b>	EUA PNS and adenoidectomy Tonsillectomy Paediatric tracheostomy	4 4 2	4 4 2	4 4 3

## HEAD AND NECK

Topic	Adenoid and tonsillar pathology in adults	P2	P3	SI = HaN
Category	Head and Neck			
Sub-category:	None			
Objective	<i>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.</i>			
Knowledge	Demonstrate a detailed knowledge of the anatomy, physiology, pathology & microbiology of the oro and nasopharynx incl relevant anatomical relationships Know the presenting signs and symptoms of benign adenotonsillar & pharyngeal disease Know the complications of adenotonsillar infection. Understand the investigation, differential diagnosis and complications of adenotonsillar hypertrophy Know the 'red flag' indicators of malignant disease of the pharynx			
Clinical Skills	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 Diagnosis and medical management of post-operative haemorrhage following adenotonsillar surgery			
Technical Skills and Procedures	Incision and drainage of peritonsillar abscess. Manage the compromised airway due to hypertrophy Tonsillectomy and adenoidectomy in adults Surgical management of post-operative bleeding following adenotonsillar surgery	4 4 4 4	4 4 4 4	4 4 4 4

Topic	Airway obstruction in adults	P2	P3	SI = HaN
Category	Head and Neck			
Sub-category:	None			
Objective	<i>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.</i>			
Knowledge	Demonstrate a detailed knowledge of the anatomy & physiology of the larynx, trachea, pharynx and oral cavity Understand the microbiology and pathology of disorders of the upper aerodigestive tract.			

	<p>Understand the classification of diseases that may present with airway obstruction.</p> <p>Understand the principles of patient management of patients presenting with airway obstruction.</p> <p>Know the different methods of securing an airway safely (surgical &amp; non surgical) in an emergency setting</p> <p>Understand the indications &amp; techniques for surgical debulking of upper airway malignancies</p> <p>Understand the principles of the use of cricothyroidotomy and tracheostomy during a Can't Intubate, Can't Oxygenate Event.</p>			
<b>Clinical Skills</b>	<p>Be able to elicit an appropriate clinical history and correctly interpret physical signs.</p> <p>Be aware of the role of appropriate investigation in the management of airway obstruction</p> <p>Demonstrate the ability to work effectively with anaesthetists and those involved in critical care who manage the 'shared airway'.</p> <p>Demonstrate expertise in the safe assessment of patients with critical airways.</p>			
<b>Technical Skills and Procedures</b>	<p>Be competent at performing the following diagnostic procedures; fibreoptic nasopharyngoscopy, direct laryngoscopy, microlaryngoscopy, bronchoscopy, pharyngo oesophagoscopy</p> <p>Be competent at performing endotracheal intubation</p> <p>Be proficient at performing a surgical tracheostomy in the elective &amp; emergency setting both under general and local anaesthesia</p> <p>Percutaneous tracheostomy</p> <p>Be competent at foreign body removal from the airway in adults</p> <p>Debulking procedures (laser/microdebrider)</p> <p>Tracheostomy change</p> <p>Emergency Front of Neck Airway procedures including cricothyroidotomy and tracheostomy</p>	<p>4</p> <p>3</p> <p>4</p> <p>1</p> <p>4</p> <p>2</p> <p>4</p> <p>4</p>	<p>4</p> <p>3</p> <p>4</p> <p>1</p> <p>4</p> <p>2</p> <p>4</p> <p>4</p>	<p>4</p> <p>4</p> <p>4</p> <p>3</p> <p>4</p> <p>4</p> <p>4</p> <p>4</p>

<b>Topic</b>	<b>Aetiology and management of craniocervical trauma in adults</b>	<b>P2</b>	<b>P3</b>	<b>SI = HaN</b>
<b>Category</b>	Head and Neck			
<b>Sub-category:</b>	None			
<b>Objective</b>	<i>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.</i>			
<b>Knowledge</b>	<p>Understand the anatomy of the head and neck</p> <p>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</p> <p>Understand the Le Fort classification of facial fractures and their effects.</p>	<p>3</p> <p>3</p>	<p>4</p> <p>4</p>	<p>4</p> <p>4</p>

	Understand the classification of fractures of the mandible and their effects	3	3	3
	Understand the classification of fractures of the temporal bone and their effects.	3	4	4
	Understand the consequences and potential complications of injury to structures in the neck, in the 3 horizontal entry zones of the neck.	3	4	4
	Understand the principles underpinning the appropriate investigation of a patient with a penetrating injury of the neck	3	4	4
	Understand the principles of the Glasgow Coma Scale and the management of the patient with an altered level of consciousness.	4	4	4
	Understand the principles of management of traumatic injury to the head	3	4	4
	and neck, including the indications for urgent surgical exploration and the priorities underpinning the planning of investigation and management.			
	Understand the need for a multidisciplinary approach to management of craniocervical trauma	3	4	4
	Understand the pathophysiology of chemical and thermal burn injury to the upper aerodigestive tract & principles of management	3	4	4
<b>Clinical Skills</b>	Be able to elicit an appropriate clinical history from a patient with craniocervical trauma (or from a third party witness).	3	4	4
	Be able to demonstrate the relevant clinical signs from a patient with craniocervical trauma.	3	4	4
	Be able to appropriately order and interpret the results of investigations in a patient with craniocervical trauma.	3	4	4
	Be able to coordinate the assembly of an appropriate multidisciplinary team to manage a patient with craniocervical trauma.	3	4	4
<b>Technical Skills and Procedures</b>	Tracheostomy	4	4	4
	Endotracheal intubation	2	3	4
	Be able to explore the traumatized neck and secure bleeding vessels.	3	4	4
	Be able to manage penetrating injury to the viscera of the upper aerodigestive tract	3	4	4
	Be able to undertake microsurgical reanastomosis of divided nerves where appropriate	1	1	2

Topic	Disorders of swallowing	P2	P3	SI = HaN
Category	Head and Neck			
Sub-category:	None			
Objective	<i>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</i>			
Knowledge	<p>Know the anatomy of the pharynx, and physiology of swallowing.</p> <p>Know the causes of odynophagia.</p> <p>Know the various hypotheses relating to the aetiology of dysphagia.</p> <p>Understand the investigation and imaging of a patient with dysphagia.</p> <p>Understand the principles of medical and surgical management of dysphagia</p> <p>Understand the pathophysiology of aspiration, its complications and the principles of management</p> <p>Understand the aetiology and management of globus pharyngeus</p> <p>Understand the aetiology and management of laryngopharyngeal reflux</p> <p>Understand the aetiology and management of Eosinophilic oesophagitis</p>			
Clinical Skills	<p>Elicit an appropriate clinical history and clinical signs.</p> <p>Be able to examine the pharynx and oesophagus with endoscopes in outpatients</p> <p>Be able to work in cooperation with Speech &amp; language therapists in the management of dysphagia</p> <p>Be aware of 'red flag' symptoms in the differential diagnosis of dysphagia</p> <p>Interpretation of videofluoroscopic swallowing studies</p>			
Technical Skills and Procedures	<p>Flexible fiberoptic nasopharyngolaryngoscopy</p> <p>Fiberoptic endoscopic evaluation of swallowing studies</p> <p>Endoscopic examination of pharynx, larynx and oesophagus under general anaesthesia</p> <p>Removal of foreign bodies from the pharynx, larynx and oesophagus under general anaesthesia</p> <p>Endoscopic pharyngeal pouch surgery</p> <p>Open pharyngeal pouch surgery</p>	<p>4</p> <p>3</p> <p>4</p> <p>4</p> <p>3</p> <p>1</p>	<p>4</p> <p>3</p> <p>4</p> <p>4</p> <p>3</p> <p>1</p>	<p>4</p> <p>4</p> <p>4</p> <p>4</p> <p>4</p> <p>4</p>

Topic	Aetiology and management of cervical sepsis	P2	P3	SI = HaN
Category	Head and Neck			
Sub-category:	None			
Objective	<i>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.</i>			
Knowledge	<p>Know the anatomy of the fascial compartments of the neck. Understand the pathogenesis(including congenital abnormalities) and clinical presentation of deep neck space infections.</p> <p>Know the microbiology of deep neck space infections.</p> <p>Understand the principles of medical and surgical management of deep neck space infection, including image guided drainage procedures.</p> <p>Understand the complications of deep neck space infections and their management.</p>	3	4	4
Clinical Skills	<p>Be able to elicit an appropriate history from a patient with deep cervical sepsis.</p> <p>Be able to demonstrate the relevant clinical signs from a patient with deep cervical sepsis.</p> <p>Be able to order and interpret the results of appropriate investigations, including imaging and microbiological cultures, in a patient with deep cervical sepsis.</p> <p>Be able to undertake treatment of a patient with deep cervical sepsis or complications thereof.</p>	3 3	4 4	4 4
Technical Skills and Procedures	<p>Be proficient in rigid endoscopic examination of the upper aerodigestive tract</p> <p>Be proficient in management of the compromised upper airway in deep cervical sepsis, including tracheostomy.</p> <p>Manage the patient in conjunction with anaesthetists/intensivists</p> <p>Be competent in the incision and drainage of a deep cervical abscess, as well as demonstrating awareness of the complications of such procedures.</p>	3 3 3 4	4 4 4 4	4 4 4 4

<b>Topic</b>	<b>Aetiology and management of congenital abnormalities of the head and neck affecting adults (including branchial &amp; thyroglossal cysts, pharyngeal diverticulae, cleft lip &amp; palate)</b>	<b>P2</b>	<b>P3</b>	<b>SI = HaN</b>
<b>Category</b>	Head and Neck			
<b>Sub-category:</b>	None			
<b>Objective</b>	<i>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.</i>			
<b>Knowledge</b>	<p>Understand the embryology of the head and neck.            Know the anatomy of the neck.            Understand the morphology and classification of pharyngeal diverticulae.            Understand the pathophysiological effects of pharyngeal diverticulae and the principles underlying their management            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.(i.e. branchial cleft abnormalities)            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.            Know of syndromes associated with congenital abnormalities of the head and neck            Understand the morphology and classification of dentoalveolar malformations and the principles underlying their management.            Understand the morphology and classification of congenital abnormalities of the larynx, trachea and oesophagus and the principles underlying their management.            Understand the morphology, classification of and pathophysiological effects of cleft lip and palate, and the principles of management thereof.            Understand the investigation of congenital abnormalities of the head and neck including imaging and examination under anaesthesia.</p>	3	3	3
<b>Clinical Skills</b>	<p>Be able to elicit an appropriate history from a patient with a congenital abnormality of the head and neck.            Be able to demonstrate the relevant clinical signs from a patient with a congenital abnormality of the head and neck.            Be able to undertake appropriately ordered investigation of a congenital abnormality of the head and neck.            Be able to interpret imaging of congenital abnormalities of the head and neck.</p>	3	3	3

	Understand the role of a multidisciplinary team in the management of congenital abnormalities of the head and neck.			
<b>Technical Skills and Procedures</b>	Be able to perform appropriately directed examination under anaesthesia, including endoscopic assessment of a congenital abnormality of the head and neck.	3	4	4
	Be able to excise a pharyngeal diverticulum using endoscopic techniques.	2	3	4
	Be able to perform surgery to remove abnormalities of the thyroglossal duct.	3	4	4
	Be able to perform a tracheostomy under general and local anaesthesia.	3	4	4
	Be able to excise a branchial cyst.	3	4	4
	Be able to excise a branchial fistula	1	1	3

<b>Topic</b>	<b>Cervical lymphadenopathy in adults</b>	<b>P2</b>	<b>P3</b>	<b>SI = HaN</b>
<b>Category</b>	Head and Neck			
<b>Sub-category:</b>	None			
<b>Objective</b>	<i>To understand the aetiology, presenting symptoms &amp; 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.</i>			
<b>Knowledge</b>	<p>Demonstrate knowledge of the aetiology &amp; pathology of cervical lymphadenopathy including manifestations of systemic disease.</p> <p>Be able to order the appropriate investigations of neck masses</p> <p>Understand the anatomy of the neck, and distribution of cervical lymph nodes. Classify the lymphatic levels of the neck according to the MSK classification.</p> <p>Demonstrate knowledge of the differing histological and microbiological causes of cervical lymphadenopathy.</p> <p>Presentation, aetiology, investigations and pattern of metastatic spread of upper aerodigestive tract, salivary gland, cutaneous and thyroid malignancies.</p> <p>Demonstrate knowledge of the presentation, aetiology, investigations and principles of management of lymphoreticular disease as it applies to the head and neck.</p> <p>Principles of management of patients with cervical lymphadenopathy including specifically the management of the unknown primary malignant neck lump.</p> <p>Demonstrate knowledge of the indications for medical &amp; surgical management and the complications of management.</p>			
<b>Clinical Skills</b>	Be able to take a relevant detailed history and interpret clinical signs correctly.			

<b>Technical Skills and Procedures</b>	Fine needle aspiration cytology	2	4	4
	Outpatient and in-patient endoscopy of the UADT.	4	4	4
	Excision of cervical lymph nodes and deal with the complications	3	4	4
	Radical neck dissection	2	2	3
	Selective neck dissection	2	4	4
	Modified radical neck dissection	1	1	3

Topic	Head and neck malignancies in the upper aerodigestive tract excluding the oral cavity	P2	P3	SI = HaN
Category	Head and Neck			
Sub-category:	None			
Objective	<i>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</i>			
Knowledge	<p>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.</p> <p>Know the pathology of HNC</p> <p>Understand the presenting signs and symptoms of head and neck cancer.</p> <p>Understand the various hypotheses relating to the aetiology of squamous cell cancer including the cellular basis of oncogenesis.</p> <p>Understand the pattern of spread of malignant disease.</p> <p>Understand how HNC is managed in the multidisciplinary setting.</p> <p>Know the indications for imaging in HNC and the use of relevant imaging modalities.</p> <p>Understand the functional consequences of head and neck cancer, and its treatment.</p> <p>Understand the principles involved in and evidence for the various medical and surgical methods of treatment available for head and neck cancer.</p> <p>Understand the role of surgical and medical treatment in palliative management of patients</p> <p>Understand the indications for reconstructive and rehabilitative surgery (including surgical voice restoration) in HNC</p> <p>Know of the various reconstructive options available in HNC</p> <p>Be aware of national and local guidelines for the management of HNC</p> <p>Know the complications of surgical and non-surgical treatment of HNC and the multidisciplinary management of these complications</p> <p>Understand the basic science underpinning chemotherapy &amp; radiotherapy</p>			

	Understand the principles of treatment of chemotherapy and radiotherapy and different techniques and regimes			
<b>Clinical Skills</b>	Elicit a relevant clinical history and clinical signs including being able to perform an appropriate examination.	3	4	4
	Be able to work within the MDT, and recognise the contributions made by all team members.	3	4	4
	Demonstrate good communication skills with other professionals.	3	4	4
	Be able to break bad news sensitively and appropriately to patients and their families	3	4	4
	Demonstrate competence in the management of acute complications of head and neck surgery	3	4	4
<b>Technical Skills and Procedures</b>	Be able to perform the following diagnostic procedures; microlaryngoscopy, pharyngo-oesophagoscopy, tonsillectomy, examination of postnasal space, bronchoscopy, Fine Needle Aspiration Cytology (FNAC)	4	4	4
	Total laryngectomy	2	2	4
	Radical neck dissection	2	2	3
	Selective neck dissection	4	4	4
	Modified radical neck dissection	1	1	3
	Open and endoscopic excision of pharyngeal tumours	2	2	3
	Transoral laser surgery	2	2	4
	Reconstructive surgery with myocutaneous (pedicled) flaps	2	2	2
	Reconstructive surgery with free tissue transfer	2	2	2
	Be able to manage safely acute complications of head and neck surgery	4	4	4
	Be able to replace a tracheoesophageal valve in clinic.	4	4	4

<b>Topic</b>	<b>Investigation and management of the neck lump</b>	<b>P2</b>	<b>P3</b>	<b>SI = HaN</b>
<b>Category</b>	Head and Neck			
<b>Sub-category:</b>	None			
<b>Objective</b>	<i>To understand the aetiology, presenting symptoms &amp; 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.</i>			
<b>Knowledge</b>	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. Know the differential diagnosis of a neck lump. Demonstrate knowledge of the aetiology & pathology of cervical lymphadenopathy including manifestations of systemic disease. Understand the presentation, aetiology, investigations and pattern of metastatic spread of upper aerodigestive tract, salivary gland, cutaneous and thyroid malignancies.			

	<p>Understand the appropriate investigation of neck masses and specifically the management of the unknown primary malignant lump.</p> <p>Demonstrate knowledge of the presentation, aetiology, investigations and principles of management of lymphoma and leukaemia as it applies to the head and neck.</p> <p>Understand the principles of medical and surgical management of patients with a neck lump</p> <p>Demonstrate knowledge of the potential complications of management.</p>			
<b>Clinical Skills</b>	<p>Be able to take a relevant detailed history, perform appropriate examination and interpret clinical signs correctly.</p> <p>Demonstrate a rational approach to investigation of a neck lump</p>			
<b>Technical Skills and Procedures</b>	<p>Perform FNAC</p> <p>Outpatient and inpatient endoscopy of the Upper aerodigestive tract</p> <p>Perform excision biopsy of cervical lymph nodes and deal with the complications.</p> <p>Radical neck dissection</p> <p>Selective neck dissection</p> <p>Modified radical neck dissection</p> <p>Branchial cyst excision and management of complications</p>	<p>4</p> <p>4</p> <p>4</p> <p>2</p> <p>4</p> <p>1</p> <p>3</p>	<p>4</p> <p>4</p> <p>4</p> <p>2</p> <p>4</p> <p>1</p> <p>4</p>	<p>4</p> <p>4</p> <p>4</p> <p>3</p> <p>4</p> <p>3</p> <p>4</p>

<b>Topic</b>	<b>Neoplastic salivary gland disease</b>	<b>P2</b>	<b>P3</b>	<b>SI = HaN</b>
<b>Category</b>	Head and Neck			
<b>Sub-category:</b>	None			
<b>Objective</b>	<i>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.</i>			
<b>Knowledge</b>	<p>Know the anatomy &amp; physiology of the major &amp; minor salivary glands &amp; their relations.</p> <p>Know the anatomy of the neck.</p> <p>Know the anatomy of the oral cavity.</p> <p>Know the pathology of salivary gland tumours.</p> <p>Understand the classification of salivary gland tumours.</p> <p>Know the presenting symptoms &amp; signs of salivary gland tumours.</p> <p>Understand the modalities (cytological &amp; imaging) available for investigating salivary gland tumours</p> <p>Know the differential diagnosis of salivary gland tumours and inflammatory swellings.</p> <p>Understand the principles of management of salivary gland tumours.</p> <p>Understand the potential consequences of salivary gland</p>			

	surgery and the complications of surgery Understand the principles of management (surgical & non surgical) of malignant salivary gland disease Understand the role of reconstructive and palliative surgery in the management of malignant salivary gland disease			
<b>Clinical Skills</b>	Be able to elicit an appropriate clinical history and interpret physical signs correctly Demonstrate the ability to detect 'red flag' symptoms & signs of malignant disease. Order the most appropriate imaging modality Manage patients with malignant disease in a multidisciplinary team			
<b>Technical Skills and Procedures</b>	FNAC Set up and use facial nerve monitor Be able to perform a submandibular gland excision Biopsy of a minor salivary gland tumour Be able to perform a superficial parotidectomy Total parotidectomy Radical neck dissection Selective neck dissection Modified radical neck dissection Facial nerve grafting Facio-hypoglossal anastomosis	4 4 4 4 4 1 2 4 1 1 1	4 4 4 4 4 1 2 4 1 1 1	4 4 4 4 4 4 3 4 3 1 1

<b>Topic</b>	<b>Non-neoplastic salivary gland disease</b>	<b>P2</b>	<b>P3</b>	<b>SI = HaN</b>
<b>Category</b>	Head and Neck			
<b>Sub-category:</b>	None			
<b>Objective</b>	<i>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.</i>			
<b>Knowledge</b>	Know the anatomy and physiology of the major and minor salivary glands. Understand the pathological processes, both local & systemic, that can affect the salivary glands. Understand the classification of benign salivary gland disease including infection, inflammatory diseases, drugs and benign tumours Know the various imaging modalities for investigation of benign salivary gland disease. Understand the principles of patient management. Know the medical and surgical management of salivary gland disease, and the complications of surgery			

<b>Clinical Skills</b>	Be able to elicit an appropriate clinical history and interpret clinical signs correctly. Be able to order the appropriate special investigations and correctly interpret images including plain radiographs, computerized tomography and Magnetic resonance imaging. Be able to counsel patients on the particular risks of salivary gland surgery.			
<b>Technical Skills and Procedures</b>	Be able to excise a submandibular calculus Be able to perform submandibular gland excision Excision of ranula Minor salivary gland biopsy Parotidectomy for inflammatory disease	4 4 1 4 1	4 4 1 4 1	4 4 3 4 3

<b>Topic</b>	<b>Thyroid and parathyroid disease</b>	<b>P2</b>	<b>P3</b>	<b>SI= TaP</b>
<b>Category</b>	Head and Neck			
<b>Sub-category:</b>	None			
<b>Objective</b>	<i>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.</i>			
<b>Knowledge</b>	Understand the embryology, physiology, biochemistry and anatomy of the thyroid gland Understand the embryology, physiology, biochemistry and anatomy of the parathyroid glands. Understand the pathophysiology of endocrine dysfunction of the thyroid and parathyroid glands. Understand the classification of thyroid neoplasia. Including TNM Understand the principles of investigation of a patient with endocrine dysfunction of the thyroid gland. Understand the principles of investigation of a patient with endocrine dysfunction of the parathyroid glands. Understand the principles of investigation of a patient with a parathyroid or thyroid mass Understand principles of medical and surgical management of endocrine dysfunction of the thyroid and parathyroid glands, including the peri operative management of thyrotoxicosis. Understand principles of medical and surgical management of neoplasia of the thyroid and parathyroid glands, including post operative complications. Understand the need to work as part of an MDT in management of malignant thyroid disease. Be aware of national and local guidelines for the management of thyroid malignancy.			

	Understand the necessary genetic and endocrine testing required for thyroid malignancies that may be associated with multiple endocrine neoplasia (MEN) syndromes.				
<b>Clinical Skills</b>	Be able to elicit an appropriate clinical history from a patient with thyroid or parathyroid gland disease. Be able to demonstrate relevant clinical signs in a patient with thyroid or parathyroid gland disease				
	Thyroid Investigation protocols for thyroid cancer CT MR and PET scanning in thyroid disease Interpretation of thyroid function tests FNAC Core biopsy of thyroid US of thyroid Interpretation of isotope scans MDT discussion of thyroid cases Management of post thyroidectomy hypocalcaemia Management of post thyroidectomy hoarseness	3	3	4	
	Parathyroid Investigation protocols for parathyroid disease CT MR and PET scanning in parathyroid disease Interpretation of Ca PTH and Vitamin D levels FNAC Core biopsy US of the neck Interpretation of Isotope scans MDT discussion of parathyroid cases Management of post thyroidectomy hypocalcaemia Management of hoarseness post parathyroidectomy including management of vocal cord palsy	3	3	4	
		3	3	4	
		1	1	2	
		2	2	4	
		2	2	4	
		3	3	4	
		2	2	2	
		2	2	4	
		2	2	4	
	<b>Technical Skills and Procedures</b>	Thyroid lobectomy	2	2	4
		Total Thyroidectomy	2	2	4
Surgical treatment of retrosternal thyroid enlargement		2	2	4	
Revision thyroid surgery		2	2	4	
Extended operations in the neck for advanced thyroid cancer including operations on the trachea, oesophagus and larynx		1	1	4	
Exploration of the neck for post thyroidectomy bleeding		2	4	4	
Level 1-5 ND		1	1	4	
Level VI ND		1	1	4	
Re-exploration of the thyroid bed for residual or recurrent cancer		1	1	4	
Be able to obtain appropriate samples for fine needle cytology or core biopsy from a patient with a thyroid or parathyroid mass		4	4	4	
Parathyroid Parathyroidectomy		1	1	4	

	Parathyroid surgery: reoperation	1	1	4
	Re exploration of the neck for post operative haemorrhage	1	1	4
	Transcervical thymectomy	1	1	2

Topic	Oral pathology	P2	P3	SI = HaN
Category	Head and Neck			
Sub-category:	None			
Objective	<i>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.</i>			
Knowledge	<p>Understand the anatomy of the oral cavity</p> <p>Know the normal flora of the oral cavity and how oral disease can alter oral flora</p> <p>Understand the physiology of the oral phases of swallowing</p> <p>Know the physiology of salivary function</p> <p>Understand the consequences of oral disease on swallowing</p> <p>Understand the consequences of salivary gland dysfunction on oral health</p> <p>Know the causes of drooling and the principles of management thereof.</p> <p>Understand the aetiology, pathophysiology, presenting symptoms and signs of dental caries</p> <p>Know the pathophysiology, presenting symptoms &amp; signs and management of mucosal oral disease including infection, inflammation, soft tissue and bony conditions</p> <p>Understand the aetiology of oral cancer</p> <p>Know the presenting symptoms and signs of oral cancer</p> <p>Understand the principles of management of oral cancer</p> <p>Understand the long and short term effects of chemotherapy and radiotherapy on oral health</p> <p>Understand the appropriate modalities for imaging oral disease</p>			
Clinical Skills	<p>Be able to elicit an appropriate clinical history and interpret physical signs correctly</p> <p>Demonstrate the ability to detect 'red flag' symptoms &amp; signs of malignant disease.</p> <p>Order the most appropriate imaging modality</p> <p>Be able to interpret plain images of the oral cavity and associated bony structures</p> <p>Manage patients with malignant disease in a multidisciplinary team</p> <p>Be able to diagnose dental related sepsis presenting in the neck or paranasal sinuses</p>	3	4	4

<b>Technical Skills and Procedures</b>	Perform a biopsy of an oral lesion	4	4	4
	Remove and treat benign oral lesions	4	4	4
	Partial glossectomy	1	1	3
	Submandibular duct transposition for drooling	1	1	1
	Dental extractions	1	1	1
	Closure of oroantral fistulae	1	1	1
	Mandibulotomy and excision of floor of mouth lesion	1	1	1

<b>Topic</b>	<b>Sleep related breathing disorders</b>	<b>P2</b>	<b>P3</b>
<b>Category</b>	Head and Neck		
<b>Sub-category:</b>	None		
<b>Objective</b>	<i>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.</i>		
<b>Knowledge</b>	<p>Know the aetiology, presenting signs and symptoms of sleep related breathing disorders, including snoring, obstructive sleep apnoea / hypopnoea and central sleep apnoea in adults.</p> <p>Know of the pathophysiological sequelae of sleep related breathing disorders including snoring, obstructive sleep apnoea / hypopnoea and central sleep apnoea</p> <p>Understand the principles of assessment and investigation of sleep related breathing disorders, including sleep nasendoscopy and sleep studies / polysomnography.</p> <p>Understand the principles of management of sleep related breathing disorders including CPAP, mandibular advancement prostheses, nasal and pharyngeal surgery, tracheostomy and drug therapy.</p> <p>Understand the principles of midface and mandibular advancement surgery.</p>		
<b>Clinical Skills</b>	<p>Be able to elicit an appropriate clinical history and identify relevant clinical signs in a patient with a sleep related breathing disorder.</p> <p>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.</p>		
<b>Technical Skills and Procedures</b>	<p>Be able to perform palatal surgery for snoring/OSAS</p> <p>Be able to perform surgery to correct nasal airway obstruction.</p> <p>Be able to perform sleep nasendoscopy or out patient flexible fiberoptic nasendoscopy</p> <p>Tracheostomy</p>	4 4 4 4	4 4 4 4

Topic	Laryngology and Voice Disorders	P2	P3	SI = La
Category	Head and Neck			
Sub-category:	Laryngology. Airway surgery			
Objective	<i>To understand the aetiology, presenting signs, symptoms and management of common voice and chronic airway 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</i>			
Knowledge	Understand the physics of sound			
	Understand the embryology of the larynx and congenital malformations of the larynx			
	Understand the maturational / developmental changes of the larynx			
	Understand the anatomy, neuroanatomy and movements of the larynx			
	Understand the physiology of phonation and articulation			
	Understand the classification of dysphonias and the various hypotheses relating to the aetiology of dysphonias.	3	3	4
	Understand the classification of disorders of articulation	2	2	4
	Understand principles of videostroboscopic examination of the larynx, laryngography and analysis of pitch and periodicity of speech (including photodocumentation)	2	2	4
	Understand the principles of the medical and surgical management of patients with dysphonia (including instrumentation).	2	2	4
	Know the principles of Speech and Language Therapy	2	2	3
	Know the classification & aetiology of inflammatory and neoplastic laryngeal disorders	3	3	4
	Laser Physics	2	2	4
	Laser safety	4	4	4
	Understand the principles of anaesthesia in Laser surgery	2	2	4
	Understand the principles of laryngotracheal reconstruction in adults	2	2	4
	Understand the aetiology, pathophysiology and treatment of Vocal cord palsy	4	3	4
	Understand the aetiology, pathophysiology and treatment of Age related vocal cord atrophy	4	3	4
Understand the material science in vocal cord injection materials	2	2	4	
Laryngeal reinnervation	2	2	4	
Laryngeal transplantation	2	2	4	
Clinical Skills	Elicit an appropriate clinical history from and demonstrate clinical signs in a dysphonic patient			
	Communication skills with Speech & Language therapists and ability to work in a multidisciplinary team.	2	2	4
	Transnasal oesophagoscopy	2	2	3
	EMG in clinical decision making	2	2	2

	Imaging studies of the larynx, trachea and oesophagus	2	2	4
	Vocal function testing	2	2	4
<b>Technical Skills and Procedures</b>	Laryngeal examination with mirrors and flexible fiberoptic endoscope in an outpatient setting	4	4	4
	Suspension Microlaryngoscopy	4	4	4
	Videostroboscopic laryngoscopy in an outpatient setting	3	3	4
	Microscopic / endoscopic laryngeal surgery and intralaryngeal injection techniques	2	2	4
	Isshiki type 1-4 thyroplasty	1	1	4
	Arytenoid adduction and reduction.	1	1	3
	Type 2 thyroplasty for spasmodic dysphonia	1	1	2
	Vocal cord injection	2	2	4
	Laryngeal electromyography	1	1	2
	Laryngofissure	1	1	2
	Laser Thyroarytenoid myoneurectomy	1	1	2
	Laser supraglottoplasty	1	1	2
	Laser microflap and mini microflap surgery	1	1	1
	Office laser phonosurgery	1	1	1
	Transnasal KTP laser under local anaesthetic	1	1	1
Laryngeal reinnervation procedures	1	1	1	

<b>Topic</b>	<b>Tracheostomy Care Module (Adult)</b>	<b>P2</b>	<b>P3</b>	<b>SI = HaN</b>
<b>Category</b>	Head & Neck			
<b>Sub-category:</b>	Airway management			
<b>Objective</b>	<i>To be able to manage patients with short and long term tracheostomies in an emergency, elective &amp; community setting and provide an expert resource to other health professionals in the management of tracheostomies</i>			
<b>Knowledge</b>	Anatomy of larynx, trachea and neck Physiology of respiration Indications for tracheostomy In depth knowledge of different types of tracheostomy tubes and relative indications for use Role of health professionals in the multidisciplinary management of patients with tracheostomy Local and national guidelines for tracheostomy management Indications for surgical & percutaneous tracheostomy Principles of weaning			
<b>Clinical Skills</b>	Tracheostomy care; suction, inner tube care, humidification Appropriate selection of correct tube to suit patient Supervision of weaning and extubation Troubleshooting in a variety of situations Management of persistent trachea cutaneous fistula Management of patients with failed extubation			

	Multi-disciplinary management of patients with long term tracheostomy tubes			
<b>Technical Skills and Procedures</b>	Flexible nasendoscopy	4	4	4
	Management of blocked & displaced tube	4	4	4
	Tracheostomy change	4	4	4
	Repair of persistent tracheo cutaneous fistula	3	3	4

## OTOLOGY

Topic	Non-infective, acquired lesions of the pinna and external ear canal	P2	P3	SI = Ot
<b>Category</b>	Otology			
<b>Sub-category:</b>	Non infective conditions of the external ear			
<b>Objective</b>	<i>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</i>			
<b>Knowledge</b>	Anatomy, physiology and pathology of the external ear and relationship of disease to the temporal bone. Systemic conditions affecting external ear Dermatological conditions of the external ear Pharmacology of medications used in treatment Aetiology, pathology, presentation and management of benign Tumours of the pinna and external ear canal Aetiology, pathology, presentation and management of malignant Tumours of the pinna and external ear canal Aetiology of acquired atresia of the external auditory meatus Pathogenesis of effects of ionizing radiation of the ear and temporal bone Aetiology, pathology, presentation and management of osteoma / exostosis Management of foreign bodies Understand the implications and management of trauma to the pinna Management including medical and surgical options as appropriate	3 3	3 3	4 3
<b>Clinical Skills</b>	HISTORY AND EXAMINATION Obtain appropriate history Clinical examination Otoscopy microscopy  DATA INTERPRETATION Interpretation of audiological investigations Awareness and interpretation of radiological investigations	3	3	4

<b>Technical Skills and Procedures</b>	Aural toilet including microsuction and application of dressings	4	4	4
	Biopsy of lesion of external ear	4	4	4
	Oncological resection of tumours of the pinna	3	3	3
	Reconstructive surgery of the pinna	1	1	2
	Meatoplasty	2	2	4
	Removal of osteoma/exostosis	1	1	2
	Otomicroscopy and removal of FBs	4	4	4
	Drainage of haematoma of pinna	4	4	4
Suturing of pinna	4	4	4	

<b>Topic</b>	<b>Infective conditions of the pinna and external ear canal</b>	<b>P2</b>	<b>P3</b>	<b>SI = Ot</b>
<b>Category</b>	Otology			
<b>Sub-category:</b>	Infective conditions of the external ear and pinna including otitis externa, furunculosis, otomycosis, viral infections, chondritis & cellulitis			
<b>Objective</b>	<i>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</i>			
<b>Knowledge</b>	Anatomy, physiology and pathology of the external ear and relationship of disease to the temporal bone. The pathogenesis of infective disorders of the external ear and pinna Necrotising otitis externa Microbiology of external ear and conditions affecting the pinna Knowledge of antimicrobial and antiviral agents and relevant pharmacology of medications used in treatment. Differential diagnosis of infective/inflammatory conditions Management including medical and surgical options as appropriate			
<b>Clinical Skills</b>	HISTORY AND EXAMINATION Obtain appropriate history Clinical examination Otoscopy Microscopy  DATA INTERPRETATION Awareness and interpretation of radiological investigations Awareness and interpretation of microbiological investigations	3	3	3
<b>Technical Skills and Procedures</b>	Microscopy Suction clearance Biopsy of lesion of external ear canal Drainage of abscess	4 4 4 4	4 4 4 4	4 4 4 4



Topic	Acute otitis media and sequelae	P2	P3	SI = Ot
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	Anatomy, physiology and pathology of the ear and temporal bone The microbiology related to acute ear infections. Complications of acute otitis media including mastoiditis, lateral sinus thrombosis, meningitis and intracranial abscess Indications for laboratory and radiological investigations Differential diagnosis of acute otitis media and complications. Medical and surgical management options Relevant pharmacology of medications used in medical treatment			
Clinical Skills	HISTORY AND EXAMINATION Obtain appropriate history Clinical examination including neurological assessment Otoscopy Microscopy Audiological assessment  DATA INTERPRETATION Interpretation of radiological investigations  PATIENT MANAGEMENT To work where appropriate in a multidisciplinary team & liaise with other professional and organisations The importance of teamwork in managing critically ill patients			
Technical Skills and Procedures	Microsuction Myringotomy and grommet insertion Cortical mastoidectomy and access mastoidectomy	4 4 4	4 4 4	4 4 4

Topic	Chronic suppurative otitis media and sequelae	P2	P3	SI = Ot
Category	Otology			
Sub-category:	Middle ear			
Objective	<i>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</i>			
Knowledge	Anatomy, physiology and pathology of the ear and temporal bone Definition and classification of chronic middle ear disease, including cholesteatoma, retraction pockets, perforations, otitis media with effusion and myringitis. Aetiology and pathophysiology of chronic middle ear disease The microbiology related to chronic middle ear disease Complications of chronic middle ear disease (including intracranial			

	sepsis) Principles and practice of audiology including pure tone audiometry, tympanometry Principles of specialist audiological investigations including speech audiometry, otoacoustic emissions and evoked response audiometry. Indications for radiological investigations Pharmacology of medications used in medical treatment Medical and surgical management options			
<b>Clinical Skills</b>	HISTORY AND EXAMINATION Obtain appropriate history Clinical examination including neurological assessment Otoscopy Microscopy Audiological assessment  DATA INTERPRETATION Interpretation of audiological investigations Interpretation of radiological investigations	3	3	4
<b>Technical Skills and Procedures</b>	Microsuction Myringotomy and grommet insertion T tube insertion Grommet removal Aural polypectomy Myringoplasty Cortical mastoidectomy and access mastoidectomy Modified radical mastoidectomy Combined approach tympanoplasty Ossiculoplasty	4 4 4 4 4 4 4 3 1 1	4 4 4 4 4 4 4 3 1 1	4 4 4 4 4 4 4 4 4 4

<b>Topic</b>	<b>Adult hearing loss</b>	<b>P2</b>	<b>P3</b>	<b>SI = Ot</b>
<b>Category</b>	Otology			
<b>Sub-category:</b>	Deafness in adults			
<b>Objective</b>	<i>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</i>			
<b>Knowledge</b>	Embryology of the ear Anatomy, physiology and pathology of the ear and auditory pathways. Principles of acoustics and measurement of sound. Principles and practice of audiology including pure tone audiometry, speech audiometry and electrophysiological tests and other objective tests of hearing including oto-acoustic emissions Indications for radiological investigation of hearing loss The genetics of otological diseases Differential diagnosis, aetiology and management of conductive	3	4 4 4 4 4 3	4 4 4 4 4 4



Middle ear implantation	1	1	1
Insertion of Bone anchored hearing aid abutment	2	2	3
Closure of perilymph leak	1	1	4
The surgical approaches to the CP angle	1	1	1
Acoustic neuroma surgery	1	1	1

Topic	Tinnitus	P2	P3	SI = Ot
<b>Category</b>	Otology			
<b>Sub-category:</b>	Tinnitus			
<b>Objective</b>	<i>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</i>			
<b>Knowledge</b>	Anatomy, physiology and pathology of the ear and auditory pathways.	2	2	4
	Psycho-acoustical tests, pitch and loudness match, minimum masking level, residual inhibition			
	The various hypotheses relating to the aetiology of tinnitus both objective and subjective	3	3	4
	Knowledge of objective causes of tinnitus e.g. palatal myoclonus, tumours, arteriovenous malformations			
	The psychological effects of tinnitus			
	Principles of tinnitus retraining and rehabilitation and the principles of support and counselling	3	3	4
	Principles of hearing aid(s) and masking			
<b>Clinical Skills</b>	HISTORY AND EXAMINATION			
	Obtain appropriate history			
	Clinical examination			
	Otoscopy			
	DATA INTERPRETATION			
	Interpretation of radiology	3	3	4
	PATIENT MANAGEMENT			
	Demonstrate communication skills and empathy.			
	Be able to advise the patient of the treatment options, discuss risks and potential benefits.			
	To liaise with other organisations and professionals including audiologists, hearing therapists and clinical psychologists			
<b>Technical Skills and Procedures</b>	Perform pure tone audiometry, tympanometry	3	4	4

Topic	Facial palsy	P2	P3	SI = Ot
Category	Otology			
Sub-category:	Facial Paralysis			
Objective	<i>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</i>			
Knowledge	<p>The anatomy and physiology of facial nerve and related structures</p> <p>The aetiology, classification and neuro-physiology of facial paralysis</p> <p>Indications for investigations including radiology, electrophysiology and laboratory tests.</p> <p>Facial nerve grading</p> <p>Management of acute and chronic facial nerve palsy</p> <p>Management and prevention of ocular complications</p> <p>Principles of peri-operative facial nerve monitoring</p> <p>Principles of rehabilitation for facial paralysis</p>	2	2	4
Clinical Skills	<p>HISTORY AND EXAMINATION</p> <p>Obtain appropriate history</p> <p>Clinical examination including assessment of facial nerve function</p> <p>Otoscopy</p> <p>DATA INTERPRETATION</p> <p>Neuro-physiological tests of inner ear function and facial nerve</p> <p>Interpretation of radiological tests</p> <p>Interpretation of laboratory investigations</p> <p>PATIENT MANAGEMENT</p> <p>Demonstrate communication skills and empathy</p> <p>Appreciate the psychological effects of facial disfigurement</p> <p>Be able to advise the patient of the treatment options, and liaise with other health care professionals.</p>	2 3	2 3	2 3
Technical Skills and Procedures	<p>Setup and use of intra-operative facial nerve monitor</p> <p>Cortical mastoidectomy</p> <p>Modified radical mastoidectomy</p> <p>Full decompression of facial nerve</p> <p>Facial nerve anastomosis</p> <p>Resection of facial neuroma</p>	4 4 3 1 1 1	4 4 3 1 1 1	4 4 3 1 1 1

Topic	Disorders of balance	P2	P3	SI = Ot
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	Anatomy and physiology related to maintenance of balance including the vestibular system, visual, locomotor, central nervous and cardiovascular systems The pathology and various hypotheses relating to the aetiology and management of sudden vestibular failure, Meniere's disease, benign paroxysmal vertigo, vestibular schwannoma, pharmacological and metabolic side effects The handicaps related to age related sensory and proprioceptive degeneration Psychological aspects of dizziness Appropriate investigations for balance disorders including audiological, radiological, laboratory and vestibular tests. The law as it relates to disorders of balance The principles of vestibular rehabilitation The principles of particle repositioning manoeuvres Medical, non-surgical and surgical treatment options			
Clinical Skills	HISTORY AND EXAMINATION Obtain appropriate history Clinical examination including neurological assessment Otoscopy  DATA INTERPRETATION Interpretation of audiological tests Interpretation of vestibular tests Interpretation of radiological and laboratory tests  PATIENT MANAGEMENT Demonstrate communication skills and empathy Be able to advise the patient of the treatment options, discuss risks and potential benefits, potential complications To work where appropriate in a multidisciplinary team & liaise with other professional and organisations			
Technical Skills and Procedures	Perform particle re-positioning manoeuvres Myringotomy and grommet insertion Intratympanic instillation of drugs Cortical mastoidectomy Decompression of endolymphatic sac Closure of perilymph fistula Labyrinthectomy Vestibular neurectomy Singular neurectomy	4 4 1 4 1 1 1 1 1	4 4 1 4 1 1 1 1 1	4 4 4 4 2 4 1 1 1

	Superior SCC dehiscence repair	1	1	1
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Topic	Lateral skull base tumours	P2	P3	SI = Ot
<b>Category</b>	Otology			
<b>Sub-category:</b>	Head and neck neoplasia			
<b>Objective</b>	<i>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.</i>			
<b>Knowledge</b>	Anatomy of the skull base and neck Anatomy of the inner, middle and external ear Anatomy of the cranial nerves Pathology and pathogenesis of skull base tumours The relevant clinical neurological, vascular, radiological, biological, immunological and serological investigations The genetics of skull base tumours including vestibular schwannomas and genetic counselling. The clinical presentation of skull base tumours The surgical and non-surgical management options. The surgical approaches to the CP angle and skull base	3       3	3       3	4       4
<b>Clinical Skills</b>	HISTORY AND EXAMINATION Obtain appropriate history Clinical examination including neurological assessment Otoscopy  DATA INTERPRETATION Interpretation of audiological tests Interpretation of vestibular tests Interpretation of radiological and laboratory tests  PATIENT MANAGEMENT Demonstrate communication skills and empathy Be able to advise the patient of the treatment options, discuss risks and potential benefits, potential complications Principles of patient management including multidisciplinary team working	       3	       3	       4
<b>Technical Skills and Procedures</b>	Surgical approaches to the lateral skull base Tympanotomy Resection of glomus tympanicum Management of complications of lateral skull base surgery including CSF leak, lateral sigmoid thrombosis and facial palsy.	1 3 1 1	1 3 1 1	1 4 2 3

## RHINOLOGY

Topic	Epistaxis	P2	P3	SI = Rh
Category	Rhinology			
Sub-category:	None			
Objective	<i>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</i>			
Knowledge	<p>Know the anatomy of the nose</p> <p>Understanding of local and systemic aetiologies of epistaxes</p> <p>Detailed knowledge of the anatomy and physiology of nasal vasculature</p> <p>Detailed understanding of the presenting symptoms and signs of epistaxes</p> <p>Detailed knowledge of management including first aid measures, nasal cautery, packing and operative techniques in the management of epistaxes</p> <p>Know the complications of epistaxes and the management of them.</p> <p>Understanding of the role of radiology and embolization in managing epistaxis</p>			
Clinical Skills	<p>Demonstrate expertise in taking an appropriate clinical history.</p> <p>Ability to elicit physical signs both local and systemic if appropriate</p> <p>Awareness of relevant haematological and imaging investigations.</p> <p>Awareness of management principles in patient with epistaxis</p> <p>Ability to resuscitate critically ill patient</p>			
Technical Skills and Procedures	<p>Diagnostic nasendoscopy</p> <p>Packing of nose</p> <p>Removal of nasal packing</p> <p>Cautery of nasal septum</p> <p>Ethmoid Artery ligation</p> <p>Sphenopalatine artery ligation</p> <p>Maxillary artery ligation</p> <p>External Carotid artery ligation</p> <p>Approach to ICA epistaxis</p>	<p>4</p> <p>4</p> <p>4</p> <p>4</p> <p>4</p> <p>3</p> <p>1</p> <p>1</p> <p>1</p>	<p>4</p> <p>4</p> <p>4</p> <p>4</p> <p>4</p> <p>4</p> <p>1</p> <p>1</p> <p>1</p>	<p>4</p> <p>4</p> <p>4</p> <p>4</p> <p>4</p> <p>4</p> <p>2</p> <p>2</p>

Topic	Nasal trauma and deformity	P2	P3	SI = Rh
Category	Rhinology			
Sub-category:	None			
Objective	<i>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.</i>			
Knowledge	Know the anatomy of the nose, paranasal sinuses and facial skeleton. Understanding of the mechanisms of trauma responsible for nasal and facial injuries. Understanding of objective assessment of airway e.g. rhinomanometry Knowledge of the appropriate imaging techniques Knowledge of the specific complications of nasal trauma Knowledge of the management of nasal trauma Knowledge of the management of nasal deformity Glasgow Coma Scale			
Clinical Skills	Ability to take a relevant history and perform an appropriate clinical examination Knowledge of the relevant special investigations and correct interpretation eg rhinomanometry Ability to adequately resuscitate the critically ill patient			
Technical Skills and Procedures	Fracture nose reduction Insertion septal button Packing of nose Management of traumatically induced epistaxis (see epistaxis section) Septoplasty Septorhinoplasty Surgical repair septal perforation-open and endonasal	4 4 4 4 4 3 1	4 4 4 4 4 4 1	4 4 4 4 4 4 4

Topic	Acute and chronic rhinosinusitis	P2	P3	SI = Rh	SI= GO
Category	Rhinology				
Sub-category:	None				
Objective	<i>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.</i>				

<b>Knowledge</b>	Detailed knowledge of anatomy and physiology of the nose and paranasal sinuses Know the microbiology of acute and chronic rhinosinusitis understanding of special investigations to inform the diagnosis Understanding of the management of acute and chronic rhinosinusitis. Knowledge of the indications for, techniques of, and complications of surgical management Knowledge of the complications of sinusitis and their management.				
<b>Clinical Skills</b>	Demonstrate an ability to take an appropriate history and perform a nasal examination with a speculum and endoscope. Awareness of the indications for and ability to interpret imaging including CT and MRI Awareness of indications for other special investigations including microbiology, immunology etc				
<b>Technical Skills and Procedures</b>	Preparation of the nose for endoscopic surgery Nasendoscopy Antral washout – direct vision Inferior meatal antrostomy – direct vision + endoscopic Middle meatal antrostomy – endoscopic Nasal polypectomy – endoscopic including microdebrider Middle turbinate partial excision Uncinectomy – endoscopic Anterior ethmoidectomy - endoscopic Caldwell-Luc – direct vision External ethmoidectomy Posterior ethmoidectomy – endoscopic Sphenoidotomy – endoscopic Opening the frontal recess – endoscopic Balloon sinuplasty Surgical management of intra-orbital bleeding Extended frontal sinus procedures Osteoplastic flap Modified endoscopic medial maxillectomy Frontal sinusotomy types 1 2 and 3	4 4 2 2 4 4 4 4 4 4 2 1 2 1 1 1 2 1 1 1 1	4 4 4 2 4 4 4 4 4 4 4 2 2 3 2 1 4 1 1 4 1	4 4 4 4 4 4 4 4 4 4 4 4 4 4 3 4 1 2 4 2 3	4 4 4 4 4 4 4 4 4 2 2 4 2 1 4 4 1 1 1 1

<b>Topic</b>	<b>Nose and sinus inflammation including allergy</b>	<b>P2</b>	<b>P3</b>	<b>SI = Rh</b>
<b>Category</b>	Rhinology			
<b>Sub-category:</b>	None			
<b>Objective</b>	<i>To understand the aetiology and pathophysiology of nasal &amp; 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.</i>			

<b>Knowledge</b>	<p>Detailed knowledge of anatomy and physiology of the nose and paranasal sinuses</p> <p>Understanding of the aetiologies underlying inflammation of the nose and sinuses.</p> <p>Basic science of allergy</p> <p>Know the role of allergy in the pathophysiology of inflammation of the nose and sinuses.</p> <p>Understanding of the special investigations used in the assessment of nasal allergy.</p> <p>Understanding of the imaging modalities to assess the nose and sinuses</p> <p>Knowledge of the role of management of allergy, and drug treatment in nasal and sinus inflammation.</p> <p>Knowledge of the indications for, techniques of and complications of surgical management</p> <p>Knowledge of systemic conditions that can cause sinonasal inflammation</p> <p>Understanding of scientific basis and methodology of desensitisation</p>	3	3	4
<b>Clinical Skills</b>	<p>Ability to take an appropriate history and perform endoscopic examination of the nose and sinuses.</p> <p>Ability to interpret the result of allergy testing including skin prick testing</p> <p>Know which haematological investigations &amp; radiological imaging are appropriate.</p>			
<b>Technical Skills and Procedures</b>	<p>Preparation of the nose for endoscopic surgery</p> <p>Nasendoscopy</p> <p>Antral washout – direct vision</p> <p>Inferior meatal antrostomy – direct vision + endoscopic</p> <p>Middle meatal antrostomy – endoscopic</p> <p>Nasal polypectomy – endoscopic including microdebrider</p> <p>Turbinate surgery</p> <p>Uncinectomy – endoscopic</p> <p>Anterior ethmoidectomy - endoscopic</p> <p>Caldwell-Luc – direct vision</p> <p>External ethmoidectomy</p> <p>Posterior ethmoidectomy – endoscopic</p> <p>Sphenoidotomy – endoscopic</p> <p>Opening the frontal recess – endoscopic</p> <p>Balloon sinuplasty</p> <p>Surgical management of intra-orbital bleeding</p>	4	4	4

Topic	<b>Congenital abnormalities of the nose and sinuses</b>	P2	P3	SI = Rh
Category	Rhinology			
Sub-category:	None			
Objective	<i>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.</i>			
Knowledge	Knowledge of the anatomy and physiology of the nose and paranasal sinuses. Knowledge of the embryology of the nose and sinuses. Knowledge of those conditions associated with congenital nasal abnormalities. Understanding of how to manage congenital nasal abnormalities in both the elective and emergency settings. Understanding of imaging modalities appropriate to the investigation of congenital abnormality Principles of genetics relating to congenital abnormalities	2	2	2
Clinical Skills	Ability to take an appropriate history from the parent and child and perform relevant general and specific rhinological examination. Examination including endoscopic			
Technical Skills and Procedures	Nasendoscopy Examination under anaesthesia Surgical management of choanal atresia Endoscopic and open approaches to midline congenital lesions	4 4 1 1	4 4 1 1	4 4 2 2

Topic	<b>Facial pain</b>	P2	P3	SI
Category	Rhinology			
Sub-category:	None			
Objective	<i>To understand the aetiologies, characteristics and management of conditions presenting with facial pain, including those causes not arising in the upper aerodigestive tract</i>			
Knowledge	Anatomy and physiology of the head and neck, including the face, TMJ, dentition and cervical spine Understand the differential diagnosis of facial pain including organic and functional causes Understand the various treatment modalities, both medical and surgical Understanding of the pharmacology of drugs used in the management of facial pain Awareness of the multidisciplinary approach to management	3	3	4
Clinical Skills	Ability to take a relevant history of facial pain Ability to perform an appropriate ENT, neurological and locomotor examination Understanding of the appropriate radiological investigations			

	Appropriate management to include onward referral for pharmacological, surgical and counselling therapies			
<b>Technical Skills and Procedures</b>	Outpatient endoscopy of upper aerodigestive tract	4	4	4
	Examination under anaesthesia	4	4	4
	Biopsy - external nose	4	4	4
	Biopsy – internal nose	4	4	4

<b>Topic</b>	<b>Pituitary disease</b>	<b>P2</b>	<b>P3</b>	<b>SI = Rh</b>
<b>Category</b>	Rhinology			
<b>Sub-category:</b>	None			
<b>Objective</b>	To understand the aetiology, classification, clinical features and management of pituitary 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.			
<b>Knowledge</b>	Understanding of the anatomy of the nose, paranasal sinuses and parasellar regions Knowledge of the Pathophysiology of the hypothalamic-pituitary axis and associated disorders Understanding of the principles of perioperative care Knowledge of indications for the endonasal and craniotomy approaches Surgical complications	2	2	4
<b>Clinical Skills</b>	Ability to take a relevant history and perform an appropriate clinical examination Knowledge of the relevant pituitary investigations and correct interpretation of them.			
<b>Technical Skills and Procedures</b>	Transsphenoidal approach to the pituitary fossa	1	1	2

<b>Topic</b>	<b>Disorders of Olfaction</b>	<b>P2</b>	<b>P3</b>	<b>SI = Rh</b>
<b>Category</b>	Rhinology			
<b>Sub-category:</b>	Olfaction			
<b>Objective</b>	<i>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.</i>			
<b>Knowledge</b>	Know the anatomy of the olfactory nerve including intracranial connections. Know the physiology of olfaction Know the classification of olfactory dysfunction Know the causes of olfactory dysfunction Understand the scientific basis for the assessment of olfactory dysfunction Know of the commonly used tests of olfaction Know the anatomy and physiology of taste			

	Know the causes of taste dysfunction			
<b>Clinical Skills</b>	Be competent at taking a comprehensive history and examination from a patient presenting with olfactory and/ or taste dysfunction. Be competent at performing a formal assessment of olfaction using appropriate validated assessment techniques Be competent at ordering and interpreting appropriate imaging to investigate olfactory dysfunction			
<b>Technical Skills and Procedures</b>	Nasendoscopy	4	4	4
	Examination of nose and postnasal space	4	4	4
	Nasal biopsy	4	4	4

<b>Topic</b>	<b>Sinonasal neoplasms including anterior skull base tumours</b>	<b>P2</b>	<b>P3</b>	<b>SI = Rh</b>
<b>Category</b>	Sinonasal neoplasms			
<b>Sub-category:</b>	None			
<b>Objective</b>	<i>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.</i>			
<b>Knowledge</b>	Knowledge of the anatomy of the nose and paranasal sinuses. Knowledge of the distribution of cervical lymph nodes Understanding of the pattern of spread of malignancy in the head and neck Knowledge of the different histological types of neoplasm in the nose, paranasal sinuses and skull base. Understanding of the principles of medical and surgical management of neoplasms of the nose and sinuses. Knowledge of the complications of both the diseases and their management. Understanding of the multidisciplinary approach to the management of sinonasal/skull base tumours	3	3	4
<b>Clinical Skills</b>	Ability to take a relevant history, perform an appropriate examination and interpret clinical findings correctly Demonstrate a rational approach to special investigations Participation in a multi-disciplinary team approach to management of sinonasal neoplasms			
<b>Technical Skills and Procedures</b>	Examination of nose under anaesthesia	4	4	4
	Biopsy of nose - external	4	4	4
	Biopsy of nose – internal	4	4	4
	Anterior skull base approaches including endoscopic	1	1	4
	Endoscopic medial maxillectomy	2	2	4
	Lateral rhinotomy	1	1	4
	Endoscopic excision nasal and sinus tumours	1	1	4
	Maxillectomy	1	1	1
	Midfacial degloving	1	1	1
	Bicoronal flap approach	1	1	1

	Endoscopic repair of anterior skull base csf leak	1	1	2
	Osteoplastic flap approach	1	1	1
	Craniofacial resection	1	1	1

Topic	CSF LEAKS / SKULL BASE DEFECT	P2	P3	SI = Rh
Category	Advanced 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	Anatomy of nose and paranasal sinuses Knowledge of aetiology of CSF leaks and meningoencephaloceles relevant to ENT Understanding of pathophysiology and complications of CSF leaks /skull base defects Understanding of the management of CSF leaks/skull base defects Understanding of principles of diagnosis and management of CSF leaks and skull base defects			
Clinical Skills	Ability to take an appropriate history and perform an examination including nasal endoscopy. Awareness of and ability to interpret CT/MR imaging and other relevant assessments Lumbar puncture and lumbar drain management Ability to work in a multidisciplinary team	1 2	1 2	2 4
Technical Skills and Procedures	Endoscopic repair with free grafts for small defects Management of larger defects with pedicled nasal flaps Harvesting of nasoseptal flap	1 1 1	1 1 1	4 3 3

Topic	Extended endonasal skull base procedures	P2	P3	SI = Rh
4	Advanced Rhinology			
Sub-category:				
Objective	<i>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</i>			
Knowledge	Knowledge of the anatomy of the nose, paranasal sinuses, and skull base Knowledge of tumours/disorders of skull base in the regions of the anterior and posterior fossa and pterygopalatine fossa Understanding of the selection of approaches, both endonasal and transcranial. Principles of perioperative management Complications of surgery and principles of management.	3 3 2 2	3 3 2 2	4 4 2 4

	Understanding of the multidisciplinary approach to the management of sinonasal/skull base tumours			
<b>Clinical Skills</b>	Principles of assessment and perioperative management of midline tumours	2	2	4
	Ability to interpret relevant CT and MR & angiography /embolization images	2	2	4
	Principles of lumbar puncture and lumbar drainage	2	2	4
	Participation in a multi-disciplinary team approach to management of skull base lesions	2	2	4
<b>Technical Skills and Procedures</b>	Examination of nose under anaesthesia	4	4	4
	Biopsy of nose - external	4	4	4
	Biopsy of nose – internal	4	4	4
	SPA ligation	3	4	4
	endonasal transmaxillary approach to pterygopalatine fossa	1	1	2
	Vidian neurectomy	1	1	2
	Anterior skull base approaches including endoscopic	1	1	2
	Endoscopic medial maxillectomy	1	1	2
	Lateral rhinotomy	1	1	3
	Endoscopic excision skull base tumours (team)	1	1	1
	Midfacial degloving approach to the sinuses	1	1	1
	Endoscopic repair of anterior / posterior skull base	1	1	2
	Repair csf leak	1	1	3
	Craniofacial resection	1	1	1
Craniotomy	1	1	1	

<b>Topic</b>	<b>Orbital disorders</b>	<b>P2</b>	<b>P3</b>	<b>SI = Rh</b>
<b>Category</b>	Advanced Rhinology			
<b>Sub-category:</b>	Intraorbital			
<b>Objective</b>	<i>To understand the aetiologies, characteristics and management of conditions presenting with facial pain, including those causes not arising in the upper aerodigestive tract. 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.</i>			
<b>Knowledge</b>	Anatomy and physiology of the orbit and its contents			
	Assessment of visual loss and knowledge of tests of visual and orbital function			
	Understanding of thyroid eye disease	3	3	4
	Understanding of disorders of the optic nerve as relevant to otolaryngologists	3	3	4
	Knowledge of the surgical approaches both open and endoscopic to the orbit	3	3	4
<b>Clinical Skills</b>	Ability to take a relevant history form a patient with an orbital disorder			
	Ability to perform an appropriate ENT, neurological and ophthalmic examination			
	Understanding of the appropriate radiological and special	3	3	4

	investigations of visual and orbital function Ability to work in a team with ophthalmological colleagues	2	2	4
<b>Technical Skills and Procedures</b>	Nasal endoscopy	4	4	4
	Lateral canthotomy	2	3	4
	Medial orbital endoscopic decompression	2	3	4
	Medial open orbital decompression	2	3	4
	Optic nerve decompression	1	1	3

Topic	Orbital disorders	P2	P3	SI = Rh
<b>Category</b>	Surgical Management of Epiphora			
<b>Sub-category:</b>	Rhinology			
<b>Objective</b>	<i>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.</i>			
<b>Knowledge</b>	Anatomy of the lacrimal system Intranasal anatomy Physiology of lacrimation Causes of epiphora 'Red Flag' symptoms			
<b>Clinical Skills</b>	Take a comprehensive history from a patient presenting with epiphora Relevant ophthalmic examination Syndringing of lacrimal system and understanding of results Dye disappearance test Understand indications for relevant investigations Team working with ophthalmologist	3 1 1 2 2	3 1 1 2 2	3 1 1 3 4
<b>Technical Skills and Procedures</b>	Nasal endoscopy EUA Nose Endonasal DCR	4 4 2	4 4 2	4 4 4

Topic	Septorhinoplasty	P2	P3
<b>Category</b>	Rhinology		
<b>Sub-category:</b>	Facial Plastics		
<b>Objective</b>	<i>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.</i>		
<b>Knowledge</b>	Understanding of the anatomy of the nose, paranasal sinuses and facial skeleton. Understanding of the embryology of the nose Understanding of the mechanisms of trauma responsible for nasal and facial injuries. Understanding of methods of assessment of the facial skeleton		

	Knowledge of surgical techniques including use of grafts Knowledge of the specific complications of nasal surgery		
<b>Clinical Skills</b>	Ability to take a relevant history and perform an appropriate clinical examination Ability to assess photographs and devise a surgical plan including onwards referral as appropriate		
<b>Technical Skills and Procedures</b>	Septoplasty Septorhinoplasty including use of grafts Appropriate dressing and packing of nose	4 4 4	4 4 4

<b>Topic</b>	<b>Congenital abnormalities of the face</b>	<b>P2</b>	<b>P3</b>
<b>Category</b>	Rhinology		
<b>Sub-category:</b>	Facial Plastics		
<b>Objective</b>	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.		
<b>Knowledge</b>	Knowledge of the anatomy and physiology of the facial structures. Knowledge of the embryology of the face including the nose, palate and neck. Knowledge of those conditions associated with congenital facial abnormalities. Understanding of how to manage congenital facial abnormalities in both the elective & emergency settings. Principles of genetics and counselling	2	2
<b>Clinical Skills</b>	Ability to take an appropriate history from the parent and child and perform relevant examinations. Nasendoscopy if appropriate		
<b>Technical Skills and Procedures</b>	Examination under anaesthesia Excision facial skin lesion including reconstructive techniques Septorhinoplasty in cleft patients	4 4 1	4 4 1

<b>Topic</b>	<b>Cosmetic Surgery</b>	<b>P2</b>	<b>P3</b>
<b>Category</b>	Rhinology		
<b>Sub-category:</b>	Facial Plastics		
<b>Objective</b>	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.		
<b>Knowledge</b>	Understanding of the anatomical areas and aesthetic units that make up the face.		

	<p>Knowledge of relaxed skin tension lines</p> <p>Understanding of the blood supply and innervation of the face.</p> <p>Knowledge of the planes of dissection available.</p> <p>Knowledge of the methods used to analyse facial features.</p> <p>Knowledge of the various procedures used in cosmetic facial surgery.</p> <p>Knowledge of the limitations and complications of cosmetic facial surgery</p>		
<b>Clinical Skills</b>	<p>Ability to take a relevant history and perform an appropriate clinical examination</p> <p>Ability to assess facial deformity and devise a management plan</p>		
<b>Technical Skills and Procedures</b>	<p>Nasendoscopy</p> <p>Resection of nasal lesion</p> <p>Be able to reconstruct defects with local flaps</p> <p>Be able to reconstruct defects using Distant flaps</p> <p>Excision skin lesion</p> <p>Harvesting and use of split and full thickness skin grafts</p> <p>Facelift</p> <p>Tissue expansion techniques</p> <p>Neuromuscular blockade</p>	<p>4</p> <p>4</p> <p>2</p> <p>1</p> <p>4</p> <p>4</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p>	<p>4</p> <p>4</p> <p>2</p> <p>1</p> <p>4</p> <p>4</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p>

<b>Topic</b>	<b>Skin Cancer</b>	<b>P2</b>	<b>P3</b>
<b>Category</b>	Skin cancer		
<b>Sub-category:</b>	Facial plastics		
<b>Objective</b>	<i>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.</i>		
<b>Knowledge</b>	<p>Know the anatomy and cellular composition of the skin.</p> <p>Know the zones of the face and relaxed skin contour lines.</p> <p>Know the physiology of skin.</p> <p>Understand the principles of carcinogenesis</p> <p>Know of the different types of skin cancer and their classification.</p> <p>Know the presenting features and appearance of different types of skin cancer.</p> <p>Know the causes and predisposing factors of skin cancer.</p> <p>Know of the staging of different types of skin cancer.</p> <p>Know of the treatment of different types of skin cancer.</p> <p>Understand the rationale for the strategies to prevent skin cancer.</p>		
<b>Clinical Skills</b>	<p>Be able to take a comprehensive history and examination from a patient presenting with symptoms of skin cancer</p> <p>Manage all patients within a multidisciplinary setting when indicated.</p> <p>Be able to recommend correct treatment options to patients</p> <p>Order appropriate imaging.</p>	<p>4</p> <p>3</p> <p>3</p> <p>4</p>	<p>4</p> <p>3</p> <p>3</p> <p>4</p>
<b>Technical Skills and Procedures</b>	<p>Skin biopsy</p> <p>Excision of skin cancer and primary closure</p> <p>Excision of skin cancer and reconstruction with local axial or random pattern flaps or grafts</p> <p>Harvesting and use of split and full thickness skin grafts</p> <p>Be able to reconstruct defects using Distant flaps</p>	<p>4</p> <p>4</p> <p>2</p> <p>4</p> <p>1</p>	<p>4</p> <p>4</p> <p>2</p> <p>4</p> <p>1</p>

<b>Topic</b>	<b>Reconstruction</b>	<b>P2</b>	<b>P3</b>	<b>SI = Rh</b>
<b>Category</b>	Rhinology			
<b>Sub-category:</b>	Facial Plastics			
<b>Objective</b>	<i>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.</i>			
<b>Knowledge</b>	Understanding of the applied anatomy of the head and neck Understanding of the blood supply and innervation of the head and neck and of local, regional and free grafts. Knowledge of the different types of flap available and the indications for their use Knowledge of the implants and prosthetic devices available.			
<b>Clinical Skills</b>	Ability to take a relevant history and perform an appropriate clinical examination Ability to assess cosmetic and functional deficits and devise a management plan including onward referral as appropriate			
<b>Technical Skills and Procedures</b>	Resection of nasal lesion Reconstruction of nasal cosmetic units Lip-wedge resection Excision skin lesion Suture skin Reconstruction with axial and random pattern local flaps Split and full thickness skin grafts Tissue expansion techniques Dermal fillers	4 2 2 4 4 2 4 1 1	4 2 2 3 4 2 4 1 1	4 3 2 3 4 3 4 2 2

## Appendix 3: Critical conditions

### Critical Conditions - Otolaryngology

Otolaryngology manages a large number of individual conditions as described in the syllabus. Assessment of a trainee's ability to manage these is through the supervision level decisions made when assessing the shared CiPs. Otolaryngology also has a list of critical conditions which are of significant importance for patient safety and to demonstrate a safe breadth of practice. These critical conditions will be assessed individually by means of the Case Based Assessment (CBD) and Clinical Evaluation Exercise (CEX) which will both provide formative feedback to the trainee and feed into the summative assessments of the AES and ARCP. To ensure that trainees have the necessary skills in the critical conditions, by certification (the end of phase 3) there should be documented evidence of performance at the level of a day-one consultant to level 4 of the CEX or CBD: *Appropriate for certification* (see CBD/CEX forms for the full list of levels).

- 1) Adult airway obstruction (malignancy, inhalation injury etc.)
- 2) Paediatric airway obstruction
- 3) Upper aero-digestive tract foreign body and chemical injury (including batteries)
- 4) Acute infections of the upper aero-digestive tract including tonsillitis & supraglottitis
- 5) Deep neck space abscess and necrotising fasciitis
- 6) Management of tonsillar haemorrhage and other major upper aerodigestive tract haemorrhage
- 7) Blunt and penetrating trauma to the neck
- 8) Epistaxis including sphenopalatine artery ligation
- 9) Complications of acute and chronic sinusitis including orbital cellulitis
- 10) Complications of ear sepsis including acute mastoiditis and necrotising otitis externa
- 11) Acute balance disorder including vestibulopathy, and diagnostic understanding of brain stem stroke and multiple sclerosis
- 12) Sudden onset sensorineural hearing loss

## Appendix 4: Index Procedures

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Otolaryngology requires technical skills to be achieved across a wide range of operative procedures as described in the syllabus. Assessment of a trainee's ability to carry out this full range of procedures is covered by the supervision level decisions made when assessing the shared CiPs. These assess not only the necessary technical skills but the totality of capabilities required to carry them out.

The index procedures are of significant importance for patient safety and to demonstrate a safe breadth of practice. They will be assessed individually by means of the Procedure Based Assessment (PBA) which will both provide formative feedback to the trainee and feed into the summative assessments of the AES report and ARCP. There should be evidence that an indicative one or more operation in each group has been assessed and at level 4a/b of the PBA (simulated operations are not accepted for this level 4 evidence requirement):

- Level 4a: *Procedure performed fluently without guidance or intervention*
- Level 4b: *As 4a and was able to anticipate, avoid and/or deal with common problems/complications.*  
(see the PBA form for the full list of levels)

Trainees should have undertaken an indicative 2000 operations during training (as principal or main assisting surgeon) to include :

1) Mastoid Operations	10 as main surgeon
2) Major neck operations	10 as main surgeon
3) Tracheostomies	10 as main surgeon
4) Paediatric Endoscopies (inc. flexible)	10 as main surgeon
5) Septorhinoplasties	10 as main surgeon
6) Functional Endoscopic Sinus Surgery	10 as only scrubbed surgeon
7) Removal of foreign bodies from airway (including nasal foreign bodies and fish bones)	10 as main surgeon

## Appendix 5: Courses and other learning opportunities away from the workplace

Some knowledge and capabilities are best gained in the formal setting of a taught course. In Otolaryngology there is one mandated course,

Otolaryngology					
Mandated Courses					
Trauma learning outcomes	Rationale for learning by attendance at a course	Phase of training	GPC	CiP	Examples of ways to meet trauma learning outcomes
To be able to assess and manage a patient presenting with ear, nose, throat and neck trauma	<p>Cannot be learned in the workplace to the level required for patient safety</p> <p>Allows a systematic process of teaching a safe and reliable method of immediate management of severely injured patients and comprises a range of comprehensive and adaptable trauma management skills relevant to all specialties</p>	Current throughout training	<p>Domain 2: Professional skills</p> <p>Domain 3: Professional knowledge</p> <p>Domain 5: Capabilities in leadership and team working</p>	2) Manages the unselected emergency take	The Advanced Trauma Life Support® (ATLS®), European Trauma Course, Definitive Surgical Trauma Skills course or equivalent locally provided course(s) meeting the outcomes described

## **Appendix 6: Roles and responsibilities for supervision**

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### **The role of the Training Programme Director (TPD)**

TPDs are responsible for managing the specialty training programmes, ensuring they deliver the specialty curriculum.

TPDs are responsible for:

- Organising, managing and directing the training programmes, ensuring that the programmes meet curriculum requirements
- Identifying, appointing and supporting local faculty i.e. Assigned Educational Supervisors (AESs) and Clinical Supervisors (CSs), providing training as necessary, including training in equality and diversity and providing feedback to AESs and CSs on the quality of their performance
- Ensuring a policy for career management and advice covering the needs of trainees in their placements and programmes
- Overseeing progress of individual trainees through the levels of the curriculum, ensuring learning objectives are set, appropriate assessments are being undertaken and that appropriate levels of supervision 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/HEE Local Office administrative support are knowledgeable about curriculum delivery and are able to work with NHS Employers, SACs, trainees and trainers
- Providing induction for trainees entering specialty programmes
- Administering and chairing the Annual Review of Competence Progression (ARCP) meetings
- Monitoring the quality of the training programme and producing quality reports (including the quality of trainer assessments and feedback) for the Postgraduate Dean
- Ensuring access to trainee data is kept confidential.

### **The role of the Assigned Educational Supervisor (AES)**

AESs are consultant surgeons responsible for the management and educational progress of one or more specified trainee(s) in a training placement or series of placements. AESs must be appropriately trained for the role, familiar with the curriculum and have demonstrated an interest and ability in teaching, training, assessing and appraising. They should have gained skills equivalent to courses such as Training the Trainer offered by an appropriate educational institution and must keep up-to-date with developments in training. They must have appropriate access to teaching resources and time for training allocated to their job plan (approx. 0.25 PA per trainee). 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.

AESs are responsible for:

- Providing induction to the unit (where appropriate)
- Ensuring that trainees are familiar with the curriculum and assessment system relevant to the level/phase of training and undertake it according to requirements
- Ensuring that trainees have appropriate day-to-day supervision appropriate to their phase of training

- Helping trainees with both professional and personal development
- Completing a learning agreement with trainees and undertaking appraisal meetings (typically one at the beginning, middle and end of a placement)
- Ensuring the MCR is completed by CSs, ensuring all the CiPs are addressed, any differences in supervision level are explained and final sign off of the MCR
- Ensuring a record is kept in the portfolio of any serious incidents or concerns and how they have been resolved
- Regularly inspecting trainee learning portfolios and ensuring trainees are making the necessary clinical and educational progress
- Informing trainees of their progress and encouraging trainees to discuss any deficiencies in the training programme, ensuring that records of such discussions are kept
- Ensuring access to trainee data is kept confidential
- Ensuring patient safety in relation to trainee performance by the early recognition and management of those doctors in distress or difficulty
- Keeping the TPD informed of any significant problems that may affect training
- Discussing trainees' progress with each trainer with whom trainees spend a period of training and involving them in the formal reporting process
- Providing an end of placement AES report for the ARCP.

### **The role of the Clinical Supervisor (CS)**

CSs are consultant surgeons responsible for delivering teaching and training under the delegated authority of the AES. The training of CSs should be similar to that of the AES.

CSs are responsible for:

- Ensuring patient safety in relation to trainee performance
- Carrying out WBAs of trainees and providing verbal and written feedback
- Liaising closely with other colleagues, with whom the trainee is working, regarding the progress and performance of trainees
- Keeping the AES informed of any significant problems that may affect training
- Ensuring access to trainee data is kept confidential
- Contributing to the MCR as part of the faculty of CSs and providing constructive feedback to the trainee.

The roles of AES and CS come under the umbrella of the Professionalised Trainer outlined in section 3.2.2. The JSCT is supportive of the GMC's moves towards greater recognition and accreditation for clinicians undertaking the roles of AES and CS, and other responsibilities supporting education and training.

### **The role of the Assessor**

Assessors carry out a range of WBAs and provide verbal and written feedback trainees. Assessments during training are usually be carried out by CSs, who will be responsible for the MCR, recommending the supervision level and providing detailed formative feedback to trainees with reference to the CiPs. Other members of the surgical team including senior trainees, senior nurses and doctors from other medical disciplines may assess trainees in areas where they have particular expertise (e.g. with the use of the DOPS). Those who are not medically qualified may also act as assessors for the trainee's Multi-source Feedback (MSF). Assessors must be appropriately qualified in the relevant professional discipline and trained in the methodology of WBA. This does not apply to MSF raters.

Assessors are responsible for:

- Carrying out WBA, including the MCR, according to their area of expertise and training
- Providing constructive verbal feedback to trainees, including an action plan, immediately after the event
- Ensuring access to trainee data is kept confidential
- Providing written feedback and/or validating WBAs in a timely manner.

### **The role of the Trainee**

Trainees are the learners who have been selected into a specialty training programme. Other surgeons who have registered to use the curriculum and learning portfolio as learners have the same responsibilities. All trainees/learners have a responsibility to recognise and work within the limits of their professional competence and to consult with colleagues as appropriate. 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. Trainees/learners must place the well-being and safety of patients above all other considerations. They are required to take responsibility for their own learning and to be proactive in initiating appointments to plan, undertake and receive feedback on learning opportunities.

Trainees/learners are responsible for:

- Engaging with opportunities for learning
- Creating a learning agreement and initiating meetings with the AES
- Raising concerns with the AES and/or TPD about any problems that might affect training
- Initiating regular WBAs with assessors in advance of observations
- Undertaking self and peer assessment
- Undertaking regular reflective practice
- Maintaining an up to date learning portfolio
- Working as part of the surgical and wider multi-professional team.

## **Appendix 7: Quality Management of the Curriculum**

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The Joint Committee on Surgical Training (JCST) works as an advisory body to the four surgical Royal Colleges of the UK and Ireland for all matters related to surgical training. It is the parent body of the Specialty Advisory Committees (SACs) and the Training Interface Groups (TIGs) and works closely with the Surgical Specialty Associations in Great Britain and Ireland. The JCST sets out a curriculum quality framework directed at evaluating and monitoring curriculum delivery against curriculum standards whereby a range of qualitative and quantitative measures inform continuous improvement. The JCST is also the umbrella organisation for the Intercollegiate Surgical Curriculum Programme (ISCP), the curriculum training management system. Through the variety of mechanisms outlined below, the JCST complies, and ensures compliance, with the requirements of equality and diversity legislation set out in the Equality Act 2010.

The quality system includes the following components:

- Quality assurance (QA): the development and maintenance of the curriculum links with the GMC's role in providing standards for training and for curricula.
- Quality management (QM): the implementation of training and curriculum standards by Deaneries/HEE Local Offices through training programmes and post locations approved by the GMC. The system includes processes for recruitment and selection and mechanisms to address concerns. SAC Liaison Members provide externality and support for local quality management.
- Quality control (QC): the implementation of training standards by local education providers (LEPs). The local delivery of curriculum is through the trainers recognised by the GMC.

### **Internal Quality Review**

The following mechanisms provide sources of information that, together, provide complementary information which informs quality management and quality improvement.

#### *Specialty Advisory Committees (SACs)*

There is one SAC for each GMC recognised surgical specialty and a Core Surgical Training Advisory Committee (CSTAC) which oversees core surgical training. Each SAC will comprise appointed Liaison Members to cover all training regions in the UK, the Lead Dean for the specialty, a trainee representative, the Chair of the Intercollegiate Specialty Board (ex officio), the President of the Specialty Association or deputy, a representative of Royal College of Surgeons in Ireland and additional members may be co-opted for a time-limited period to provide specific expertise as necessary. The skill set and experience of SAC members will reflect the breadth of the specialty. The Liaison Members act on behalf of the SAC by overseeing training in a particular region(s) other than their own. Duties include contributing to the local quality management systems, the ARCP and to the regular reporting through first-hand independent knowledge of training programmes.

#### *Curriculum development*

The SACs, working with their Specialty Associations, are responsible for curriculum development and maintenance. They monitor innovations in clinical practice and, when these become established components of service delivery, they can be incorporated into an approximately three yearly review of the specialty curriculum. Similarly, the JCST, ISCP Management Committee, JCST Quality Assurance Group and the SACs monitor developments in training delivery and incorporate these into formal curriculum reviews. Curriculum updates are made in consultation with all stakeholders, including trainees, trainers, speciality organisations, deans, employers, patient and lay representatives and the GMC including specific trials and pilots when required.

Equality and diversity implications are considered throughout the development of curricula in association with trainees and trainers through specific development events, which feed into impact assessments, noting any potential adverse effects on learners with protected characteristics as defined by the Equality Act 2010. Curricula are also developed through regular meetings with the GMC, helping to refine the curriculum approach and ensuring that the standards for curricula are met and identify future developments.

### *GMC Survey*

The GMC undertakes a national training survey of trainee views on their training. The findings of the survey are available by country, postgraduate body, LEP, training level and graduating medical school. The GMC also conducts a survey of educational and clinical supervisors in the UK, which aims to collect evidence on whether trainers are able to undertake their duties as trainers effectively; have support for training including trainer development and the formal recognition of their duties in job plans; are implementing curricula and assessments appropriately.

The JCST analyses the GMC's published reports on these surveys, drawing out the key messages for surgery to feed into each SAC and QA Group meeting. SAC Liaison Members are responsible for consulting on the outcomes of these discussions with those responsible for curriculum delivery in their regions including TPDs and Specialty Training Committees (STCs). They also report key learning points through their Liaison Member Reports. The JCST uses the initial analysis and feedback from these processes to help address ad hoc queries and inform projects, pilots, monitoring and evaluation work. The outcomes of these processes are to report the specialty and national view of postgraduate surgical training through a continuous model of reporting to the GMC at regional and national level.

The GMC also provides a progression data portal, which colleges and faculties can use to consider data on the progression of trainees by specialties and regions. The JCST uses these data to help identify system or policy changes that might need review in order to ensure equality, diversity and fairness. See also below – External Quality Review (the GMC and postgraduate bodies use the GMC survey findings in external quality review).

### Quality Indicators

The JCST [Quality Indicators](#) are the JCST and SACs' guidance on the attributes of good quality training posts. They are not an assessment for measuring the achievements of individual trainee. They are a tool to monitor the quality of training posts and drive quality improvement.

### JCST Survey

The [JCST trainee survey](#) measures training post compliance with the JCST Quality Indicators across all UK training programmes. The anonymised survey responses are pivotal to the JCST's quality processes. Trainees complete one survey for each training placement prior to their ARCP. As part of its five-year strategy, the JCST shares this information in the form of annual reports. The JCST also conducts a biennial survey of surgical Assigned Educational Supervisors to gather information on issues particularly relevant to surgical trainers, such as use of the web-based ISCP, time and support available to undertake training and other related activities. Analysis of the findings from these surveys are key to the work of the SACs and QA Group. This informs their meetings and the consultations SAC Liaison Members have with those responsible for curriculum delivery within their regions including TPDs and STCs. The learning points drawn from the analysis and feedback

inform all JCST work including projects, pilots and evaluation and help report the specialty and national view of postgraduate surgical training.

#### *JCST and ISCP data*

Training data collected through the JCST and ISCP are used to review quality. These include curriculum delivery, adherence to quality indicators and equality and diversity issues. The ISCP is used to monitor curriculum delivery, trainee progression and WBA performance. The ISCP Management Committee undertakes and supports qualitative and quantitative research and recruits external Research Fellows to conduct specific studies to support curriculum and assessment change.

#### *Trainee views*

Representatives of trainee associations are members of the JCST committees and have specific sections of meetings to report on training issues and raise concerns. Trainee representatives are involved in working groups, curriculum review and the development of the ISCP training management system, including, where necessary, cascading training, testing and piloting.

### **External Quality Review**

#### *Postgraduate Deans*

The responsibility for the quality management of specialty training programmes rests with the Deans. They ensure posts and programmes are approved by the GMC, oversee the appointment of trainees and of TPDs. They ensure that training in the regions is implemented in accordance with GMC-approved curricula. Deans work through STCs and Boards, seeking advice from the JCST, the surgical Royal Colleges and SACs on curriculum delivery, the local content of programmes, assessment of trainees, remedial training and the recognition and training of trainers. The Deans contract LEPs through Service Level Agreements to deliver training to agreed standards. Working alongside Postgraduate Deans, education providers must take responsibility for ensuring that clinical governance and health and safety standards are met. This includes the provision of a system of training including in equality and diversity, a process of revalidation and annual appraisals of trainers by employers set against the professional standards for Good Medical Practice.

#### *Schools of Surgery*

The co-ordination of surgical training is through Schools and their devolved nation equivalents, which are accountable to the Deaneries/HEE Local Offices. They bring together networks of lead providers of postgraduate medical education in a particular specialty or group of specialties to decide how educational initiatives are best delivered and ensure consistency of approach. Each School is led by the Head of School who acts as a workforce adviser to the education commissioners, leads on quality management of surgery, supports and develops lead providers, provides regional representation in national fora and an interface with other disciplines. The Head of School or their devolved nation equivalent also oversees the quality of training posts provided locally. The national Heads of School and their devolved nation equivalents meet through their Confederation of Postgraduate Schools of Surgery (CoPSS), which is also attended by the Chair of the JCST and ISCP Surgical Director.

### *Training Programme Directors*

Training programmes are led by TPDs or their designated equivalent. TPDs have responsibility for managing individual specialty training programmes. Their responsibilities include allocating trainees to training placements and rotations, providing systems for career management, flexible training, academic training and remedial training as well as organising the recognition and training of trainers and co-ordinating the ARCP. TPDs, working alongside Heads of School, are also introducing a standardised form for the evaluation of AES reports in order to offer feedback to AESs about the quality of their feedback to trainees, along with mechanisms for development.

### *Statutory Education Bodies*

Co-ordination and alignment of policy on medical education is devolved from health ministers to bodies governing the health services in the four nations of the UK (Health Education England (HEE), NHS Education for Scotland (NES), the Northern Ireland Medical and Dental Training Agency (NIMDTA) and Health Education and Improvement Wales (HEIW)) and Ireland (the Health Service Executive (HSE)). These organisations are responsible for healthcare, education, training and workforce development. They take advice from the JCST and the surgical Royal Colleges in order to ensure consistent regional delivery. These organisations can undertake visits to LEPs and visits can be triggered by specific concerns. They highlight any areas for improvement, agree the timetable for any appropriate action and identify areas of notable practice. SAC Liaison Members may be involved in the visits to provide both specialty-specific input and externality.

### *UK Medical Education Reference Group (UKMERG)*

The UKMERG is a forum for discussion, co-ordination and alignment of matters relating to medical education across the UK. It includes representation from the four UK health departments and the four statutory postgraduate medical education bodies.

### *General Medical Council*

The GMC is responsible for setting the standards for curricula and approving curricula as well as approval of training programmes and training post locations. The Deanery/HEE Local Office submits an application for programme and post location approval. Support for an application is available from the relevant surgical SAC. There is regular reporting to the GMC as part of their quality framework. The GMC activities may include document requests, meetings, shadowing, observations, visits and document reviews. The GMC uses the GMC survey results in quality assurance by monitoring that training meets the required standards. It will escalate issues through other QA activity such as an enhanced monitoring process. Triggered visits investigate possible serious educational failures or risks to patient safety as part of the GMC's enhanced monitoring process. The GMC's QA process includes the ability to impose a sanction in response to a failure to meet its standards including imposing conditions which limit the time or scope of approval, refusing approval, and withdrawing recognition for training.

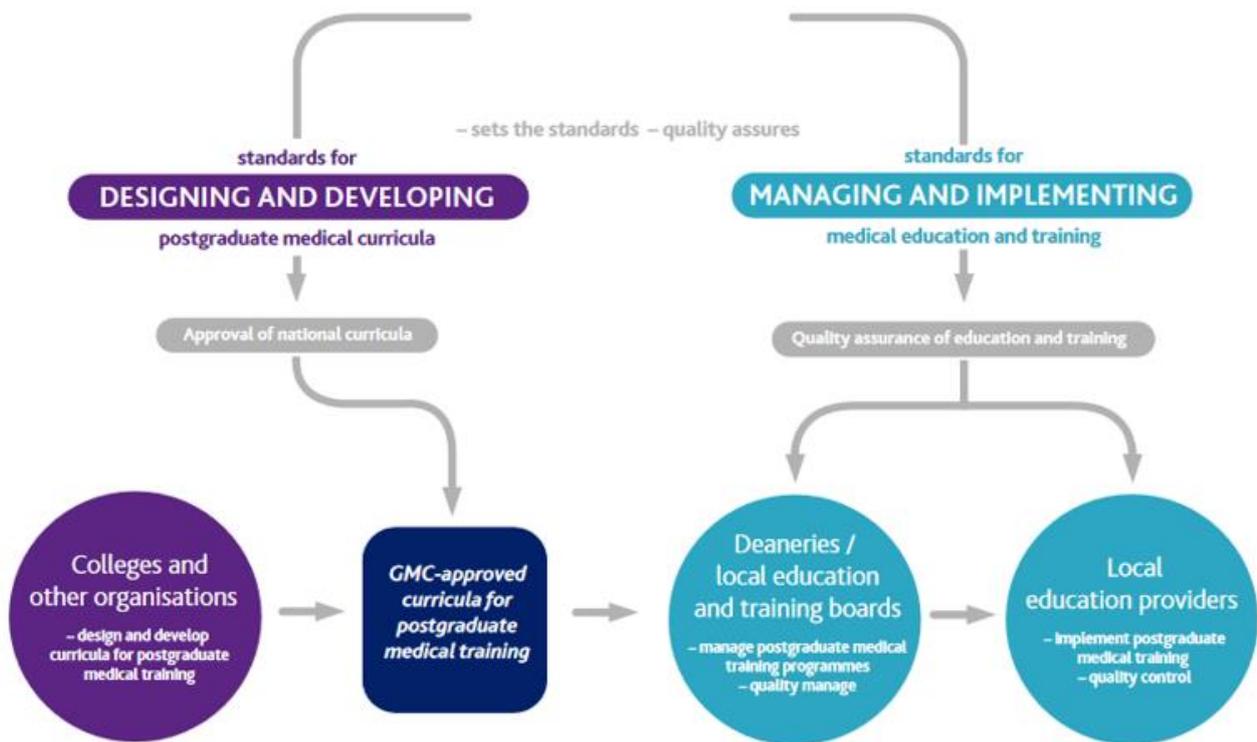


Figure 9: The quality assurance structure of the curriculum (adapted from Excellence by Design, GMC, 2017)

## Appendix 8: Glossary

Term	Definition
AES Report	An end of placement report by the trainee's Assigned Educational Supervisor, providing key evidence for the trainee's ARCP.
ARCP / ARCP 6	The Annual Review of Competence Progression (ARCP) panel will recommend one of 8 outcomes to trainees. Outcome 6 sets out that a trainee has gained all required competencies and will be recommended as having completed the training programme. (For further information, please see the Gold Guide <sup>7</sup> ).
Capability	The ability to be able to perform an activity in a competent way.
Capabilities in Practice (CiP)	The high-level learning outcomes of the curriculum. Learning outcomes operationalise groups of competencies by describing them in terms of holistic professional activities. In surgery they are aligned to what a day-one consultant will need to be able to know and do. Rather than learning 'inputs' ('what is learned', they set out what the learner must be able to do as a result of the learning at the end of the training programme – a practical skill) and clarify the extent to which trainees should successfully perform to reach certification.
Critical Condition	Any condition where a misdiagnosis can be associated with devastating consequences for life or limb.
Critical Progression Points	Key points during the curriculum where trainees will transition to a higher level of responsibility or enter a new area of practice. These points are frequently associated with increased risk, and so robust assessment is required. These points are at the end of phase 2 (transition to phase 3), and the end of phase 3 to achieve certification.
Core Surgical Training	The early years of surgical training for all ten surgical specialties.
Generic	Applicable to <i>all</i> trainees regardless of specialty, discipline and level of training, e.g. Generic Professional Capabilities.
Generic Professional Capabilities (GPCs)	A framework of educational outcomes that underpin medical professional practice for all doctors in the United Kingdom.
Good Medical Practice (GMP)	The core ethical guidance that the General Medical Council (GMC) provides for doctors.
High-Level Outcome	See Capability in Practice.
Index Procedure	Operative 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.
Manage	Throughout the curriculum the term 'manage' indicates competence in clinical assessment, diagnosis, investigation and treatment (both operative and non-operative), recognising when referral to more

	specialised or experienced surgeons is required for definitive treatment.
Multiple Consultant Report (MCR)	An assessment by Clinical Supervisors that assesses trainees on the high-level outcomes of the curriculum. The MCR provides a supervision level for each of the five Capabilities in Practice (CiPs) as well as giving outcomes for the nine domains of the Generic Professional Capabilities. The assessment will be at the mid-point and end of a placement. The MCR is a formative assessment, providing trainees with formative feedback. However, the final MCR also contributes to the summative AES report.
Phase	An indicative period of training encompassing a number of indicative training levels. Phases are divided by critical progression points to ensure safe transitioning where patient or training risk may increase. Phases have replaced 'stages' of training in previous versions of the curriculum.
Placement	A surgical unit in which trainees work in order to gain experiential training and assessment under named supervisors.
Run-through training	The route which allows trainees, after a single competitive selection process at ST1 and satisfactory progress, to progress through to specialty training at ST3 onwards (unlike uncoupled training).
Specialty Advisory Committee (SAC)	The committee which oversees training in a particular specialty, reporting to the JCST. SAC responsibilities include trainee enrolment and support, certification, out of programme and LTFT training, curriculum development, logbook development, simulation training, quality assurance (including processes for externality via the provision of regional liaison members), national recruitment also credentialing (if appropriate).
Shared	Applicable to all specialties i.e. the five shared CiPs are identical to all ten surgical specialties. In some specialties some additional CiPs may be specialty-specific.
Special Interest	Advanced areas of training in the specialty.
Supervision level	The level of supervision required by a trainee to undertake an activity, task or group of tasks, ranging from the ability to observe only through direct and indirect supervision to the ability to perform unsupervised.
Trainees	Doctors in training programmes.
Training programme	A rotation of placements in which training is provided under a Training Programme Director and named supervisors.
Uncoupled programme	The route where core surgical training (CT1 and CT2) and specialty training (ST3 onwards) are separated by a national recruitment process (unlike run-through training).

## Appendix 9: Assessment Blueprint

All aspects of the curriculum are assessed using one or more of the described components of the assessment system. Some curriculum content can be assessed in more than one component but the emphasis will differ between assessments so that testing is not excessive in any one area. The key assessment is the MCR through which trainees are assessed on the high-level outcomes of the curriculum; the CiPs and GPCs.

High-level outcomes	Assessment Framework											
	CiP/GPC self-assessment	MCR	MSF	CEX	CBD	PBA	DOPS	AoA	OoT	ISB Exam Section 1	ISB Exam Section 2	
	<b>Capabilities in Practice</b>											
1. Manages an out-patient clinic	*	*	*	*	*						*	
2. Manages the unselected emergency take	*	*	*	*	*	*	*				*	
3. Manages ward rounds and the on-going care of in-patients	*	*	*	*	*						*	
4. Managing an operating list	*	*	*			*	*					
5. Managing multi-disciplinary working	*	*	*		*							

High-level outcomes	Generic Professional Capabilities											
		CiP/GPC self-assessment	MCR	MSF	CEX	CBD	PBA	DOPS	AoA	OoT	ISB Exam Section 1	ISB Exam Section 2
	Domain 1: Professional values and behaviours	*	*	*	*	*	*	*	*	*		*
	Domain 2: Professional skills	*	*	*	*	*	*	*		*		*
	Domain 3: Professional knowledge	*	*	*	*	*	*	*	*	*	*	*
	Domain 4: Capabilities in health promotion and illness prevention	*	*		*	*					*	
	Domain 5: Capabilities in leadership and team working	*	*	*		*	*	*	*	*	*	
	Domain 6: Capabilities in patient safety and quality improvement	*	*			*			*		*	
	Domain 7: Capabilities in safeguarding vulnerable groups	*	*		*	*	*	*			*	
	Domain 8: Capabilities in education and training	*	*							*		
Domain 9: Capabilities in research and scholarship	*	*										

Syllabus			CiP/GPC self-assessment	MCR	MSF	CEX	CBD	PBA	DOPS	AoA	OoT	ISB Exam Section 1	ISB Exam Section 2
	Knowledge			*	*	*	*	*	*	*	*	*	*
Clinical skills	Clinical skills (general)		*	*	*	*	*						*
	Critical conditions (mandated CEX/CBD)		*	*	*	*	*						*
Technical skills	Technical skills (general)		*	*				*	*				
	Index procedures (mandated PBA/DOPS)		*	*				*	*				