

# Oral & Maxillofacial Surgery Curriculum

4 August 2021 (VERSION 3 / AUGUST 2026)

VERTICAL LINE INDICATES UPDATES

THE INTERCOLLEGIATE  
SURGICAL CURRICULUM PROGRAMME

*Educating the surgeons of the future*

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## Acknowledgements

Curriculum update version 3 August 2026

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Curriculum August 2021

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# 1 Introduction

The curriculum provides the approved United Kingdom (UK) framework for the training of doctors to the level of independent consultant practice in Oral and Maxillofacial Surgery (OMFS), addressing the requirements of patients, the population and the strategic health services. The curriculum will also be followed for training 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 of Ireland (RSCI) and the Medical Council of Ireland.

## 2 Purpose

### 2.1 Purpose of the curriculum

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The purpose of the curriculum for OMFS is to develop, by certification, competent doctors, able to deliver excellent outcomes for patients as consultant surgeons in the UK and Ireland. The curriculum will provide consultant surgeons with the generic professional and specialty-specific capabilities needed to manage patients presenting with the full range of acute OMFS conditions up to, including and beyond the point of operation, and to manage the full range of acute and elective conditions in the generality of the specialty. OMFS surgeons tend to focus their training and subsequent practice in one or more areas allowing flexibility to meet patient and service demands. Trainees will be entrusted to undertake the role of the general OMFS Specialty Registrar (StR) during training and will be qualified at certification to apply for consultant posts in OMFS in the UK or Republic of Ireland.

Patient safety and competent practice are both essential and the curriculum has been designed so that the learning experience itself should not 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, we expect trainees 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.

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 OMFS 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

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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](#)

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.

The curriculum has been developed in consultation with stakeholders, including trainees, trainers, employers, lay representatives and other groups, ensuring the development of a curriculum that is fair, flexible, non-discriminatory, fit for purpose today with the capacity to evolve in future iterations in response to changing needs of patients. There was agreement that the curriculum will develop surgeons who possess the broad-based knowledge and skills to manage unselected emergency and elective patients referred to secondary care, providing general treatment plans and recognising the need for referral to sub-specialist care where appropriate. OMFS consultants on completion of training will be able to demonstrate competence across the breadth of the specialty to the levels defined in the specialty-specific curriculum. At certification, an OMFS surgeon will be able to demonstrate the capability to manage an unselected acute emergency adult and paediatric take. The necessary applied clinical knowledge and skills are described in the OMFS specialty-specific syllabus modules.

The curriculum specifically develops OMFS surgeons who are able to lead and work in multi-disciplinary teams (MDTs) and with colleagues from a wide range of professional groups in a variety of hospital and primary care settings. The management of some clinical conditions requires interactions across certain surgical specialties e.g. Otolaryngology, Neurosurgery, Plastic Surgery and the OMFS curriculum aims to improve patient care by enhancing understanding and skills across traditional specialty boundaries.

The curriculum will allow trainees to train in a variety of community settings where the necessary facilities and governance arrangements are in place and, after certification, specialists in OMFS will have the necessary capability to work in community settings subject to the availability of equipment and safe governance. However, the need for specialised equipment and x-ray facilities limits the ability to undertake work in individual primary care facilities and smaller community hospitals. The curriculum will develop OMFS surgeons that can work in a hub and spoke model, where patients are treated centrally for complex elements of their care but managed more locally to their communities for initial assessment and follow up.

The need to work with colleagues in all settings, including primary care, is embedded within the OMFS curriculum. The OMFS curriculum will develop surgeons who work with and value the wider MDT including general practitioners, general dental practitioners, physiotherapists, specialist nurses, social workers and psychologists. This, together with advances in telemedicine and digital imaging, will facilitate and enhance the quality of care for patients in the community setting.

Although much of the syllabus is specific to the treatment of conditions within the scope of an OMFS surgeon, generic technical skills and knowledge and skills in the management of specific conditions treated by other specialities, such as airway management, are transferable. Trainees who choose a different career route may be able to have a shorter than usual training pathway in their new training programme, in recognition of learning already gained. As training in OMFS requires a dental qualification, transfer into OMFS from other medical specialties is less likely. This flexible approach with acquisition of transferable capabilities, will allow training in OMFS to adapt to current and

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

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

future patient and workforce needs as well as to changes in surgery with the advent of new treatments and technologies.

### 2.3 The training pathway and duration of training

Trainees will enter OMFS training via a national selection process at either ST3, or through the ST1 run-through programme. Trainees will learn in a variety of settings using a range of methods, including workplace-based experiential learning in a variety of environments, formal postgraduate teaching, simulation-based education and through self-directed learning. OMFS training is outcome-based rather than time-based. However, it will normally be completed in an indicative time of five years for uncoupled trainees entering at ST3 and six years for those entering run-through programmes at ST1.

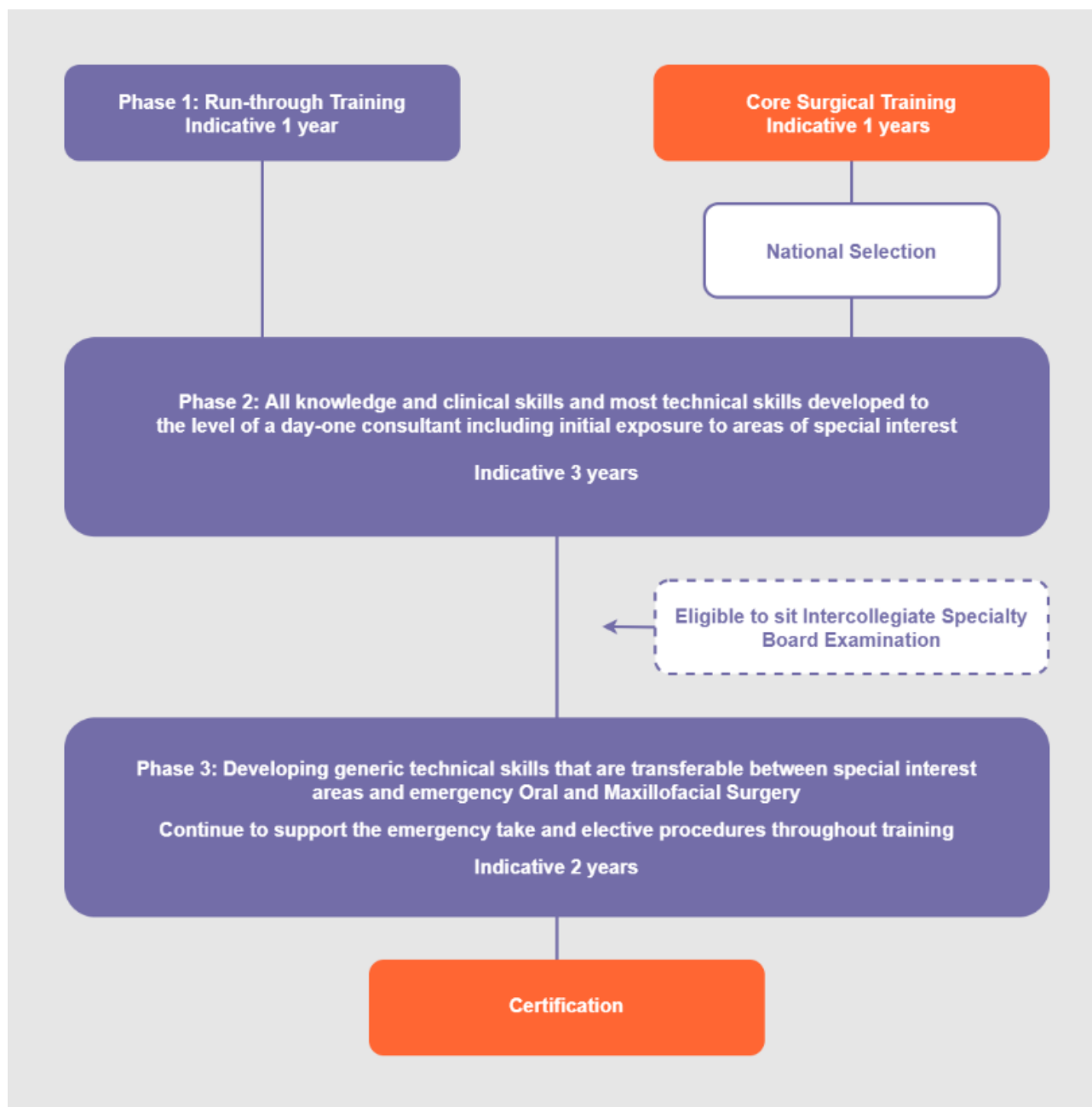


Figure 1 – Training Pathway in Oral and Maxillofacial Surgery

In run-through programmes, it is expected that most trainees will undertake posts in specialties other than OMFS in the first year of training which offer the most beneficial experience for sitting the Intercollegiate Membership examination of the Royal Colleges of Surgeons (MRCS). It is desirable that trainees are supported to sit and pass the MRCS examination in this first year (phase 1). Success at MRCS, attainment of core curriculum competence by the end of ST1 and an ARCP outcome 1 enable the trainee to progress directly to phase 2 of training. Run-through trainees who do not achieve these outcomes by the end of ST1 will not progress to phase 2 of training and will have training extended through the ARCP process as defined in *A Reference Guide for Postgraduate Foundation and Specialty Training in the UK* (the Gold Guide<sup>5</sup>).

There will be options for those trainees who demonstrate exceptionally rapid development and acquisition of capabilities to complete training more rapidly than the current indicative time of five (uncoupled) or six (run-through) years. There may also be a small number of trainees who develop more slowly and will require an extension of training in line with the Gold Guide. Trainees who choose less than full time training (LTFT) will have the indicative training time extended pro-rata in accordance with the Gold Guide.

The programme will be divided into 3 phases:

Phase 1 will be completed by those entering run-through training via national selection at ST1. It will take an indicative year to complete and will involve placement in surgical specialties to provide optimal training for the MRCS examination, taken towards the end of ST1. It is most likely that trainees will be exposed to General Surgery, Trauma and Orthopaedic Surgery, Otolaryngology and Plastic Surgery through this year. There will be a critical progression point at the end of phase 1, requiring achievement of the GPCs and the development of the CiPs to a level equivalent to the end of core surgical training, a pass in the MRCS examination and an outcome 1 at ST1 Annual Review of Competence Progression (ARCP) in order to progress to phase 2.

Phase 2 will take an indicative time of three years, during which trainees will achieve the GPCs and the OMFS specialty-specific applied knowledge and clinical skills as defined in the CiPs and syllabus across the generality of the specialty dealing with both elective and unselected emergency presentations. At the end of phase 2 there is a critical progression point for entry into phase 3. At this point trainees will be required to demonstrate the professional conduct, judgement and values to be able to assess, investigate, diagnose and manage patients in the out-patient, multi-disciplinary, emergency and operating theatre settings commensurate with the CiPs and defined syllabus. This will be assessed at ARCP and the trainee considered to have met the criteria to sit the Intercollegiate Specialty Board (ISB) examination.

Phase 3 will take an indicative time of two years and trainees will continue to develop and achieve the GPCs and technical skills in the generality of elective presentations and to operatively manage an unselected take to the level described for certification. On completion of phase 3 trainees will be eligible for certification and for recommendation to enter the specialist register.

Areas of special interest

Trainees tend to develop an area of special interest during their training. Demonstration of excellence in this area of special interest can be demonstrated by the CiPs and the levels of competence outlined in the specialty-specific modules.

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<sup>5</sup> [Gold Guide 10<sup>th</sup> edition](#)

### 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 OMFS curriculum

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The practice of OMFS requires the generic and specialty knowledge, clinical and technical skills and behaviours to manage patients presenting with:

- trauma to the face, jaws, mouth and neck
- cancers of the head and neck
- conditions of the salivary glands
- congenital and developmental facial deformity including that involving the skull (craniofacial deformity)
- cleft lip and palate
- concerns with aesthetic appearance
- facial and jaw (TMJ) pain
- conditions of the teeth, mouth and jaws
- infections of the head and neck including life-threatening fascial space infection
- conditions of the oral mucosa
- benign and malignant lesions of the skin of the head and neck region.

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 clinical areas for learning are described by the CiPs which are the high-level learning outcomes for training in OMFS described below and shown in full in appendix 1.

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

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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 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 consultant 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 outpatient 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 in OMFS. 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 the 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.

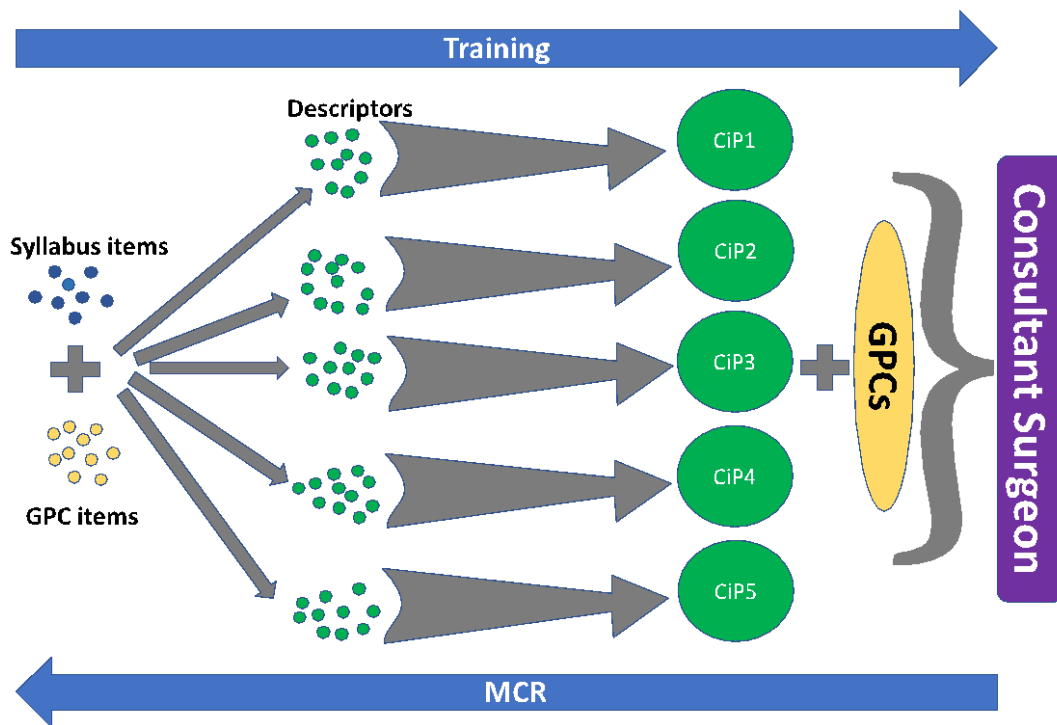


Figure 2 - The interrelationship of the GPCs, the syllabus, the CiPs and their descriptors to the role of a consultant surgeon. Items from the syllabus are combined with items taken from the GPC framework to form the small tasks which are the CiP descriptors. When the small tasks of the descriptors are 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 OMFS 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. For example, managing the unselected emergency take (CiP 2), includes the need to promptly assess acutely unwell and deteriorating patients and deliver resuscitative treatment and initial management and ensure sepsis is recognised and treated in compliance with protocol (see appendix 1). 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 the 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 OMFS. Table 1 shows indicative supervision levels to be achieved to complete phase 2 and the supervision levels required by the end of phase 3. A trainee becomes eligible for certification when supervision level IV has been achieved in each CiP, as well as acquiring all of the skills described in the GPC framework (in addition to the other certification requirements) as confirmed by an ARCP panel.

Capabilities in Practice	Supervision Level for end of phase 1	Indicative Supervision Level (end of phase 2)	Supervision Level (end of phase 3 and certification)
Manages an out-patient clinic	SL IIa	SL III	SL IV
Manages the unselected emergency take	SL IIa	SL III	SL IV
Manages ward rounds and the on-going care of in-patients	SL IIb	SL III	SL IV
Manages an operating list	SL I	SL III	SL IV
Manages multi-disciplinary working	SL I	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 OMFS

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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 OMFS 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 OMFS 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 OMFS. The syllabus is organised into modules with topics which reflect the presenting conditions of patients in relation to the specialty. The modules reflect the current UK practice of OMFS and allow trainees to concentrate their learning in particular modules and for programmes to facilitate exposure where appropriate for working towards certification. The modules also allow trainees to demonstrate learning beyond that required for certification in an area of special interest in conjunction with level V in the CiPs. It is likely that learning in a number of modules will occur contemporaneously, reflecting the structure of clinical practice. Trainees are expected to have exposure to all modules in phase 2 of training.

As surgical practice continues to evolve, it is essential for trainees to develop competencies in areas that are shaping the future of healthcare. The following three areas of practice are becoming increasingly relevant to the delivery of surgery and patient care. While these areas are not written into the syllabus in detail, they are recognised as critical aspects of practice that trainees should be aware of and integrate where appropriate. Given that surgical specialties and healthcare systems adopt these advancements at different rates, trainees are expected to stay informed and adapt their practice accordingly.

Whilst these areas are of growing importance and relevance, they are not expected to be fully evidenced by all trainees at this stage due to current disparities in training opportunities. Where feasible, trainee engagement in these emerging areas is encouraged, with continued focus on demonstrating the essential skills and behaviours in the GPC framework.

#### *Genomics*

Knowledge of genomics is increasingly important for surgical trainees, aiding them in patient screening, enhancing diagnostics and treatments leading to better targeted care. Genomic technologies allow for the identification of genetic mutations and variations that contribute to disease, enabling treatment plans tailored to individual genetic profiles. Additionally, it is important for understanding hereditary and familial conditions, allowing surgeons to provide better-informed consent and management options for patients and their families. Although some specialties are likely to adopt genomic medicine into their clinical practice sooner than others, trainees will be expected to stay current with these developments and integrate genetic insights into their own clinical practice where appropriate. Trainees can demonstrate their application of genomics to

patient care using workplace-based assessment methods such as the CEX, CBD, AoA and through presentations and quality improvement projects.<sup>6 7 8</sup>

### *Clinical Informatics*

The use of Clinical informatics is a critical area of knowledge for surgical trainees as it encompasses the use of information technology to improve patient care. Proficiency in clinical informatics enables surgeons to efficiently manage electronic health records, use clinical decision support systems, and analyse health data to enhance surgical outcomes. Furthermore, clinical informatics supports evidence-based practice by providing access to the latest research and guidelines, facilitating continuous learning and improvement. Trainees will be expected to demonstrate the use of digital applications and the ability to access critical information for administrative efficiency, making informed surgical decisions and improving patient care. Trainees can demonstrate their knowledge, understanding and application of clinical informatics to patient care using workplace-based assessment methods such as the CEX, CBD, AoA, OoT and through presentations, research, quality improvement projects and health service management related activity.<sup>9 10 11</sup>

### *Sustainability*

The use of sustainable practices is an increasingly important consideration in surgery, given the environmental impact of healthcare activities. By adopting sustainable practices, surgeons can contribute to the broader effort of making healthcare more environmentally friendly while still providing high-quality patient care. Trainees will be expected to keep up to date with knowledge of sustainable practices, including an understanding of the environmental implications of surgical procedures, the use of sustainable materials, and the implementation of energy-efficient practices within the operating room. Trainees should demonstrate that they can incorporate sustainability into their own practice and encourage a culture of environmental responsibility and stewardship. Trainees can demonstrate their commitment to sustainability using workplace-based assessment methods such as DOPS, PBA, CEX, CBD, OoT, AoA and through quality improvement projects, and reflective practice.<sup>12</sup>

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<sup>6</sup> [https://www.aomrc.org.uk/wp-content/uploads/2021/11/Genomics\\_syllabus\\_1121.pdf](https://www.aomrc.org.uk/wp-content/uploads/2021/11/Genomics_syllabus_1121.pdf)

<sup>7</sup> <https://www.england.nhs.uk/long-read/accelerating-genomic-medicine-in-the-nhs/>

<sup>8</sup> <https://www.nationalhealthexecutive.com/articles/nhs-scotland-first-genomic-medicine-strategy-launches>

<sup>9</sup> <https://www.england.nhs.uk/long-read/digital-skills-health-informatics-competency-standards-frameworks-and-tools-for-healthcare-professionals/>

<sup>10</sup> <https://digital-transformation.hee.nhs.uk/>

<sup>11</sup> [https://www.aomrc.org.uk/wp-content/uploads/2020/09/Doctors\\_Download\\_exploring\\_doctors\\_digital\\_priorities\\_for\\_action\\_0320.pdf](https://www.aomrc.org.uk/wp-content/uploads/2020/09/Doctors_Download_exploring_doctors_digital_priorities_for_action_0320.pdf)

<sup>12</sup> <https://www.aomrc.org.uk/publication/sustainability-resources/>

### 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 OMFS 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 is, 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. To support the demonstration of a sufficient breadth of experience and achievement of competence in the generality of OMFS and special Interest areas within OMFS, a list of index procedures is included in the certification requirements (section 5.4) and appendix 4a. The indicative numbers expected for OMFS by certification are shown in appendix 4b 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.

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 OMFS 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>13</sup> (2017). This stipulates that all training must comply with the following ten standards:

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<sup>13</sup> [Promoting excellence: standards for medical education and training](#)

### *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.

### *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 NHS England, 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>14</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 Training Programme Directors (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.

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<sup>14</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/>

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 OMFS syllabus and may include a mixture of formal talks including attendance at national conferences relevant to the specialty, 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.

#### **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 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>15</sup> enables Deaneries 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.

### **4.4 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-

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<sup>15</sup> [GMC recognition and approval of trainers](#)

based assessments (WBAs). The MCR and use of the CiP and GPC descriptors provide regular opportunities for detailed and specific feedback. Trainee self-assessment 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.

#### **4.5 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 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 3 below.

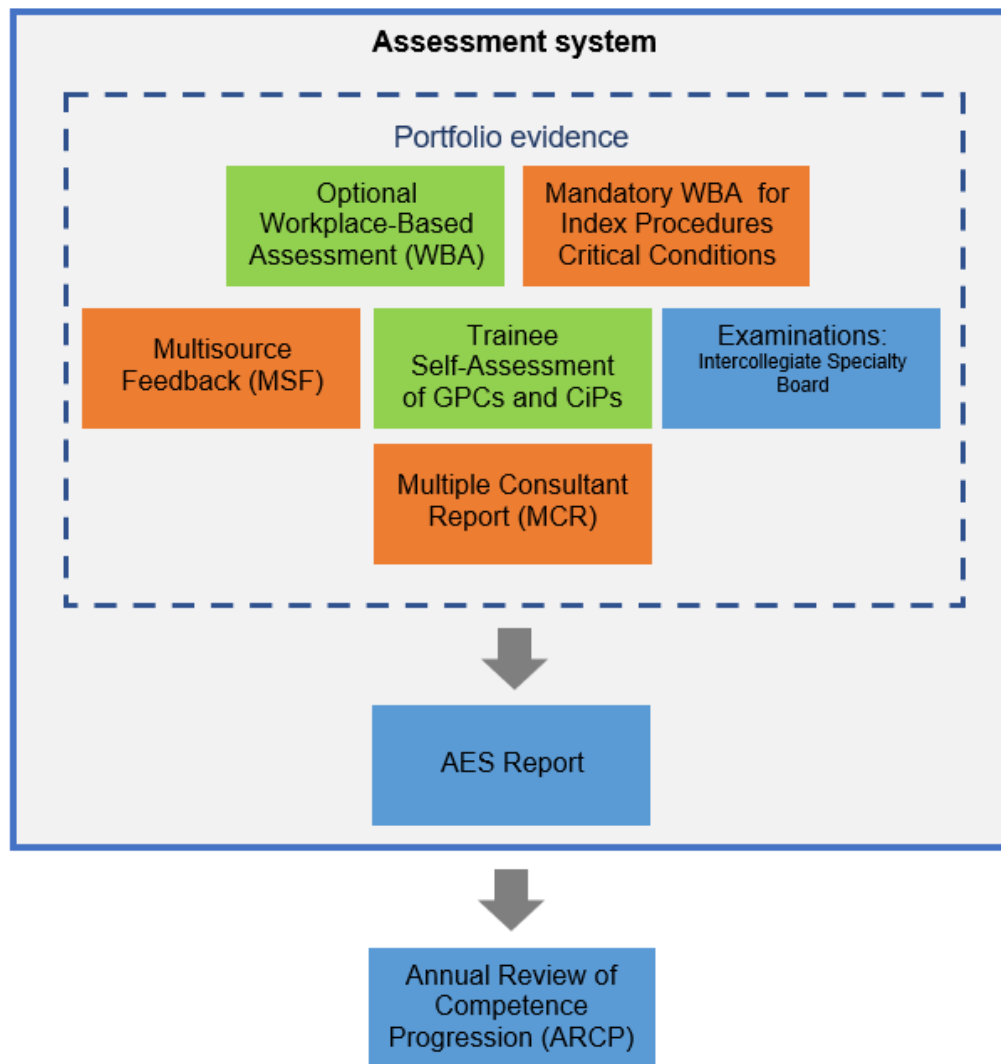
Assessments can be described as *helping* learning or *testing* learning - referred to as formative and summative respectively. There is a link between the two; some assessments are purely formative (shown in green in figure 3), others are explicitly summative with a feedback element (shown in blue) 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.



- Key**
- Assessments providing formative feedback whilst contributing to summative feedback
  - Formative assessments
  - Summative assessments or mechanism with a feedback element

Figure 3: 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.

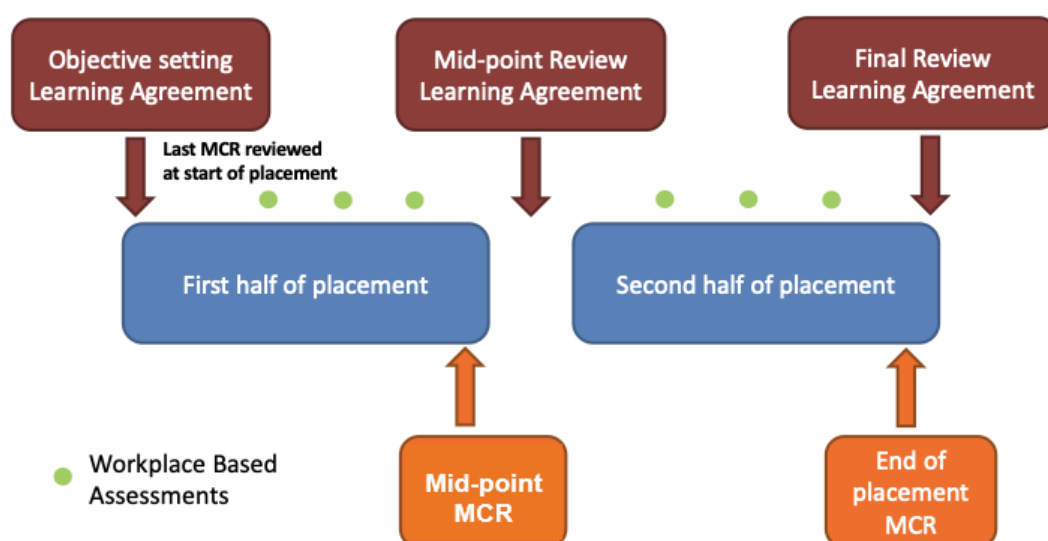
Reflection and feedback are also an integral components of all WBAs. In order for trainees to maximise the benefit of WBA, reflection and feedback should take place as soon as possible after the event. Feedback should be of high quality that should include a verbal dialogue between trainee and assessor 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>16</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 of training (figure 4). 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.



<sup>16</sup> <https://www.iscp.ac.uk/courses/culturalawarenesscourse.aspx>

Figure 4: The sequence of assessment through a placement.

### **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 5 and 6 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 and towards the end 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 MCR feeds into the final review learning agreement meeting, helping to inform the AES report (figure 4). 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	yes	some aspects	may be necessary for part	n/a

	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.				
<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 5 and 6. Figure 7 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

<b>Appropriate for phase</b>	Your comments...	<b>Descriptors</b>
<b>Area for development</b>		

#### 2. Professional skills

<b>Appropriate for phase</b>	Your comments...	<b>Descriptors</b>
<b>Area for development</b>		

#### 3. Professional knowledge

<b>Appropriate for phase</b>	Your comments...	<b>Descriptors</b>
<b>Area for development</b>		

#### 4. Capabilities in health promotion and illness prevention

<b>Appropriate for phase</b>	Your comments...	<b>Descriptors</b>
<b>Area for development</b>		

#### 5. Capabilities in leadership and team working

<b>Appropriate for phase</b>	Your comments, including your development plan for certification...	<b>Descriptors</b>
<b>Area for development</b>		

## 6. Capabilities in patient safety and quality improvement

<b>Appropriate for phase</b>	Your comments, including your development plan for certification...	<b>Descriptors</b>
<b>Area for development</b>		

## 7. Capabilities in safeguarding vulnerable groups

<b>Appropriate for phase</b>	Your comments...	<b>Descriptors</b>
<b>Area for development</b>		

## 8. Capabilities in education and training

<b>Appropriate for phase</b>	Your comments, including your development plan for certification...	<b>Descriptors</b>
<b>Area for development</b>		

## 9. Capabilities in research and scholarship

<b>Appropriate for phase</b>	Your comments, including your development plan for certification...	<b>Descriptors</b>
<b>Area for development</b>		

Figure 5: An example of how the GPCs are assessed through the MCR. CSs would consider whether there are 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.

## Multiple Consultant Report – assessment of the CiPs

1. Manages an out-patient clinic

Supervision level Please select

Your comments...

Descriptors

---

2. Manages the unselected emergency take

Supervision level Please select

Your comments...

Descriptors

---

3. Manages ward rounds and the ongoing care of in patients

Supervision level Please select

Your comments...

Descriptors

---

4. Manages an operating list

Supervision level Please select

Your comments...

Descriptors

---

5. Manages multi-disciplinary working

Supervision level Please select

Your comments...

Descriptors

Figure 6: 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 CSs wished to capture areas of particular excellence for feedback. If levels I to III are recommended then the 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 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 of CiPs 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.

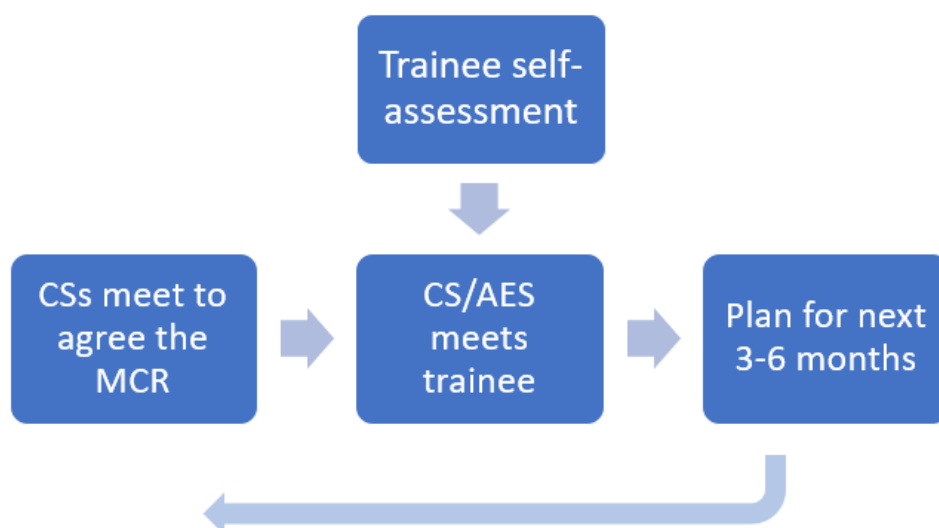


Figure 7: The iterative process of the MCR, showing the involvement of CSs, self-assessment by trainees, face to face meetings between trainees and supervisors and the development of an action plan focused on identified learning needs over the next three to six months of training. Progress against these 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 training 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 for 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, out-patient 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.

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 and GPCs (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 less than full time (LTFT) trainees. Trainees in 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 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 progress through to be able to move to the next level or phase of training or to achieve certification.

## 5.4 Completion of training in OMFS

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

All seeking certification in OMFS 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) be fully registered with the General Dental Council (GDC) or hold a dental qualification recognised by the GDC as fully registrable (UK trainees only)
- c) have successfully passed the ISB examination
- d) have achieved level IV or V in all the CiPs
- e) have achieved the competencies described in the nine domains of the GPC framework
- f) 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 the final ARCP, trainees must be able to satisfy the following specialty specific guidelines:

- a) Generic requirements shared between surgical specialties

<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 across relevant health services and the variations between nations</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 OMFS

<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>
<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</p>	<p>To ensure opportunities to acquire the breadth of curricular competencies in a variety of learning environments and cultures, trainees should, where geographically possible, complete a training programme that includes rotation through multiple units or sites. This recognises the importance of an ability to constructively compare different approaches to delivering surgical patient care and work-based cultures.</p> <p>Trainees must have participated in on call rotas and managed emergency cases during their training.</p> <p>Trainees should provide evidence of experience in the breadth of the specialty as defined by the specialty-specific modules.</p> <p>The majority of this experience will be obtained during rotations through recognised OMFS units within a training region. Some elements of the curriculum can only be provided in certain units or regions. Trainees will, therefore, be expected to obtain this experience from formal arrangements with other training regions and the recommended indicative timeframes are:</p> <p>2 weeks craniofacial surgery</p> <p>6 weeks cleft lip and palate surgery</p> <p>Evidence of experience in aesthetic surgery will be obtained in a number of ways:</p> <ul style="list-style-type: none"> <li>• Evidence of the management of patients with craniofacial, facial and reconstructive requirements in every day OMFS practice</li> <li>• Evidence of experience in private health care facilities where the JCST standards have been met (<a href="#">JCST Principles for Training in the Private Sector Nov2018</a>)</li> <li>• Evidence of the assessment and management of patients with facial/head &amp; neck aesthetic concerns</li> </ul>
<p><b>Operative experience</b> - consolidated logbook evidence</p>	<p>Indicative numbers of procedures are outlined in appendix 4a</p>

<p>of the breadth of operative experience defined in the specialty syllabus</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>By certification there should be documented evidence of performance at the level of a day-one consultant by means of the PBA (to level 4 as shown in appendix 4a).</p> <ul style="list-style-type: none"> <li>• Surgical removal of impacted and buried teeth</li> <li>• Drainage of tissue space infection</li> <li>• Surgical access to airway (tracheostomy/cricothyroidotomy)</li> <li>• Repair of facial lacerations</li> <li>• Reduction and fixation of fractures of the mandible (including open reduction of condyle)</li> <li>• Reduction and fixation of fractures of the midface including nose</li> <li>• Repair and grafting of fractures of the orbital floor</li> <li>• Excision &amp; reconstruction of facial skin defects</li> <li>• TMJ arthrocentesis</li> <li>• Bone graft</li> <li>• Ramus osteotomy of the mandible</li> <li>• Le Fort 1 maxillary osteotomy</li> <li>• Removal of a parotid lump</li> <li>• Neck dissection</li> <li>• Raising and inseting of free flap</li> <li>• Oral resection (Level 3)</li> <li>• Microvascular anastomosis (Level 3)</li> </ul> <p>(simulated operations are not accepted for this requirement but can be part of teaching and learning)</p>
<p><b>Critical Conditions</b> - To ensure that trainees have the necessary skills to manage the defined critical conditions.</p>	<p>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> <ul style="list-style-type: none"> <li>• Life-threatening airway compromise</li> <li>• Sepsis of the head and neck</li> <li>• Sight – threatening trauma</li> <li>• Haemorrhage arising from the face, mouth, jaws and neck</li> <li>• Malignancy of the head and neck</li> </ul>

Table 3: Requirements for completion of training in OMFS: a) generic requirements shared between all surgical specialties and b) requirements specific to OMFS. 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 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

**Shared Capability in Practice 2:  
Manages the unselected emergency take  
Good Medical Practice Domains 1,2,3,4**

**Description**

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.

**Example descriptors:**

- Promptly assesses acutely unwell and deteriorating patients, delivers resuscitative treatment and initial management, and ensures sepsis is recognised and treated in compliance with protocol
- 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, accounts for and manages co-morbidity in the context of the surgical presentation, referring for specialist advice when necessary
- Selects patients for conservative and operative treatment plans as appropriate, explaining these to the patient, and carrying them out
- Demonstrates effective communication with colleagues, patients and relatives
- Makes appropriate peri- and post-operative management plans in conjunction with anaesthetic colleagues
- 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
- Makes appropriate discharge and follow up arrangements
- Carries out all operative procedures as described in the syllabus
- Manages potentially difficult or challenging interpersonal situations
- Gives and receives appropriate handover

**Specialty specific requirements:**

- See critical conditions (appendix 3 of the curriculum)
- Trauma course (ATLS or equivalent)

**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 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 at least the breadth of operative experience described in the index procedures and the indicative numbers (appendices 4a and 4b of the curriculum) by the end of phase 3.

**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: Oral and Maxillofacial Surgery Syllabus**

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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.

The syllabus is arranged into twelve modules with topics reflecting the presenting conditions of patients in relation to the specialty. Trainees are expected to have exposure to all topics in phase 2 of training.

The modules reflect the current UK practice of OMFS and allow trainees to concentrate their learning in particular modules and for programmes to facilitate exposure where appropriate for working towards certification. The modules also allow trainees to demonstrate learning beyond that required for certification in an area of special interest in conjunction with level V in the CiPs. It is likely that learning in a number of modules will occur contemporaneously reflecting the structure of clinical practice.

To reflect the requirement for GPCs to permeate the use of knowledge and skills and not be seen or assessed in isolation, each module has a detailed common outcome:

<b>Outcome</b>	<b>The assessment and management of a patient presenting with <i>'condition x'</i></b>			
	<b>A trainee will be required to provide evidence of their deepening understanding, capability and competence at the marked level for their phase of training. This will include evidence of their expanding knowledge, clinical skills, general professional capabilities and clinical thinking.</b>			
The following themes will permeate throughout the module. The development of:				
Professional values and virtues, conduct, self-discipline and probity	The ability to deal with complexity and uncertainty	Meticulousness in recording evidence through written reflection and critical perspectives of deepening personal capacity for the purposes of patient care and patient safety	Understanding the importance of context	Developing ability to lead and work in a team
<b>Competence Level: Applied Knowledge</b>		<b>Competence Level: Clinical Skills</b>	<b>Competence level: Clinical Thinking (decision making and professional judgement)</b>	
1 = Knows of		0 = No experience	Hasty/ habitual	<i>Evolving through Phase 2</i>
2 = Knows basic concepts		1 = Has observed or knows of	Self Defensive	
3 = Knows generally		2 = Can manage with assistance	Maturing	
4 = Knows specifically and broadly		3 = Can manage who e but may need assistance	Consistently mature and	
		4 = Competent to do without assistance, including complications In DOPS and PEAs level 4 is further divided: 4a = Able to manage without assistance including potential complications 4b = Able to manage complex cases and their associated potential complications	Showing wisdom	<i>End of Phase 3</i>

## **Standards for knowledge**

Each topic for a level or phase of training has a competence level ascribed to it for knowledge ranging from 1 to 4 which indicates the depth of knowledge required:

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

## **Standards for clinical and technical skills**

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

1. Has observed

Exit descriptor; at this level the trainee:

- has adequate knowledge of the steps through direct observation
- 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 under direct supervision
- 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 when help is needed
- 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 day-one UK consultant surgeon to function
- is capable of supervising trainees.

## Core Surgical Training – Phase 1

### Common Content Module

#### Basic Sciences

<b>Objective</b>	To acquire and demonstrate a knowledge of the basic science which underpins the practice of surgery
<b>Knowledge</b>	<p><i>Applied anatomy:</i></p> <ul style="list-style-type: none"> <li>• Gross and microscopic anatomy of the organs and other structures</li> <li>• Surface anatomy</li> <li>• Imaging anatomy</li> <li>• Development and embryology</li> </ul> <p>This will include anatomy of thorax, abdomen, pelvis, perineum, limbs, spine, head and neck.</p> <p><i>Physiology:</i></p> <p>General physiological principles including:</p> <ul style="list-style-type: none"> <li>• Thermoregulation</li> <li>• Metabolic, ionic and acid/base homeostasis</li> <li>• Cardiorespiratory homeostasis</li> <li>• Haemostasis</li> <li>• Acid base balance</li> </ul> <p>This will include the physiology of specific organ systems relevant to surgical care including the cardiovascular, respiratory, gastrointestinal, urinary, endocrine, musculoskeletal and neurological systems.</p> <p><i>Pharmacology:</i></p> <ul style="list-style-type: none"> <li>• The pharmacology of drugs used in surgical practice, both for treatment and prophylaxis, including analgesics, antibiotics, anticoagulants and local anaesthetics</li> <li>• The pharmacology and recommended modification in the perioperative period of the common agents used for the treatment of chronic intercurrent disease</li> <li>• The pharmacological principles of general anaesthesia and intensive care medicine</li> <li>• The pharmacological principles relevant to the treatment of malignancy</li> <li>• The pharmacological principles of immunosuppression</li> </ul> <p><i>Pathology:</i></p> <p>General pathological principles including:</p> <ul style="list-style-type: none"> <li>• Necrosis and apoptosis</li> <li>• Inflammation and immunity including transplant rejection</li> <li>• Repair, regeneration and healing</li> <li>• Thrombosis and embolism</li> <li>• Shock, systemic inflammatory response syndrome and multiple organ failure</li> <li>• Neoplasia including carcinogenesis, the biology of tumour growth, metastasis and the principles of grading and staging</li> </ul>

	<ul style="list-style-type: none"> <li>Genetics including genomics</li> </ul> <p>The pathology of specific organ systems relevant to surgical care including cardiovascular pathology, respiratory pathology, gastrointestinal pathology, genitourinary disease, breast, exocrine and endocrine pathology, central and peripheral, neurological systems, skin, lymphoreticular and musculoskeletal systems.</p> <p><i>Microbiology:</i></p> <ul style="list-style-type: none"> <li>Infection control including sources of infection, asepsis, disinfection and sterilisation</li> <li>General pathology of bacterial and viral disease including mechanisms of injury and systemic sepsis</li> <li>Soft tissue infections including cellulitis, abscesses, necrotising fasciitis and gangrene</li> <li>Hospital acquired infection, antibiotic governance and bacterial resistance</li> <li>Prevention of the transmission of blood born viral infection during surgery</li> </ul> <p><i>Medical physics:</i></p> <ul style="list-style-type: none"> <li>Principles of diagnostic and interventional imaging including plain and contrast radiography, ultrasound, CT, MRI, PET and radionuclide imaging</li> <li>Principles of diathermy, LASER, ultrasonic aspiration</li> <li>Principles of radiotherapy</li> <li>Application of robotics and artificial intelligence to surgery</li> </ul> <p><i>Medical statistics:</i></p> <ul style="list-style-type: none"> <li>Principles of screening</li> <li>The null hypothesis and common tests used with parametric and non-parametric data</li> </ul>
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### The clinical method in surgical practice

<b>Objective</b>	To demonstrate the knowledge and clinical skill necessary to assess and investigate a patient presenting to a surgical team
<b>Knowledge</b>	<p>For each of the index conditions below:</p> <ul style="list-style-type: none"> <li>epidemiology</li> <li>common presentations</li> <li>expected findings on history and examination</li> <li>natural history</li> <li>important investigations and likely findings</li> <li>management options and published guidelines</li> <li>prognosis</li> </ul>
<b>Clinical Skills</b>	<p>Take a tailored history and perform a relevant examination in an outpatient clinic</p> <p>Detect the need for and initiate resuscitation in an unwell patient</p> <p>Take a tailored history and perform a relevant examination for an acutely unwell patient</p> <p>Construct and investigate a differential diagnosis</p> <p>Facilitate a patient centred discussion of treatment options and agree on a management plan</p>

<b>Reference to other relevant syllabus items</b>	Critical care Professional/leadership skills: good clinical care Surgical care of the paediatric patient	
<b>Index conditions</b>	This section sets out those common and important conditions about which a working knowledge of the relevant clinical science and principles of management are essential for all core surgical trainees.	
<b>Organ system</b>	<i>Presentations</i>	<i>Conditions</i>
<b>Abdomen</b>	<ul style="list-style-type: none"> <li>• Abdominal pain</li> <li>• Abdominal swelling</li> <li>• Change in bowel habit</li> <li>• Gastrointestinal haemorrhage</li> <li>• Dysphagia</li> <li>• Dyspepsia</li> <li>• Jaundice</li> </ul>	<ul style="list-style-type: none"> <li>• Appendicitis</li> <li>• Gastrointestinal malignancy</li> <li>• Inflammatory bowel disease</li> <li>• Diverticular disease</li> <li>• Intestinal obstruction</li> <li>• Adhesions</li> <li>• Abdominal hernias</li> <li>• Peritonitis</li> <li>• Intestinal perforation</li> <li>• Benign oesophageal disease</li> <li>• Peptic ulcer disease</li> <li>• Benign and malignant hepatic, gall bladder and pancreatic disease</li> <li>• Haemorrhoids and perianal disease</li> <li>• Abdominal wall stomata</li> <li>• Abdominal trauma including splenic injury</li> </ul>
<b>Breast</b>	<ul style="list-style-type: none"> <li>• Breast lumps and nipple discharge</li> <li>• Acute Breast pain</li> </ul>	<ul style="list-style-type: none"> <li>• Benign and malignant breast lumps</li> <li>• Mastitis and breast abscess</li> </ul>
<b>Vascular</b>	<ul style="list-style-type: none"> <li>• Chronic and acute limb ischaemia</li> <li>• Aneurysmal disease</li> <li>• Transient ischaemic attacks</li> <li>• Varicose veins</li> <li>• Leg ulceration</li> </ul>	<ul style="list-style-type: none"> <li>• Atherosclerotic arterial disease</li> <li>• Embolic and thrombotic arterial disease</li> <li>• Venous insufficiency</li> <li>• Diabetic ulceration</li> <li>• Vascular injury</li> </ul>
<b>Cardiac &amp; respiratory</b>		<ul style="list-style-type: none"> <li>• Coronary heart disease</li> <li>• Valvular heart disease</li> <li>• Bronchial carcinoma</li> <li>• Obstructive airways disease</li> <li>• Tumours of the chest including carcinoma of the bronchus</li> <li>• Thoracic trauma</li> </ul>
<b>Genitourinary</b>	<ul style="list-style-type: none"> <li>• Loin pain</li> <li>• Haematuria</li> <li>• Lower urinary tract symptoms</li> <li>• Urinary retention</li> <li>• Renal failure</li> <li>• Scrotal swellings</li> <li>• Testicular pain</li> </ul>	<ul style="list-style-type: none"> <li>• Genitourinary malignancy</li> <li>• Urinary calculus disease</li> <li>• Urinary tract infection</li> <li>• Benign prostatic hyperplasia</li> <li>• Obstructive uropathy</li> </ul>

<b>Musculo-skeletal</b>	<ul style="list-style-type: none"> <li>• Acute limb pain and deformity</li> <li>• Chronic joint pain and deformity</li> <li>• Back pain</li> </ul>	<ul style="list-style-type: none"> <li>• Simple fractures and joint dislocations</li> <li>• Fractures around the hip and ankle</li> <li>• Degenerative joint disease</li> <li>• Inflammatory joint disease including bone and joint infection</li> <li>• Compartment syndrome</li> <li>• Bony metastatic malignancy</li> </ul>
<b>Skin, head and neck</b>	<ul style="list-style-type: none"> <li>• Lumps in the neck</li> <li>• Skin lumps</li> <li>• Epistaxis</li> <li>• Upper airway obstruction</li> </ul>	<ul style="list-style-type: none"> <li>• Benign and malignant skin and subcutaneous lesions</li> <li>• Benign and malignant lesions of the mouth and tongue</li> <li>• Burns</li> <li>• Soft tissue trauma and skin loss</li> <li>• Infections related to the nose, ears, throat and face</li> </ul>
<b>Neurological</b>	<ul style="list-style-type: none"> <li>• Headache</li> <li>• Coma</li> </ul>	<ul style="list-style-type: none"> <li>• Intracranial tumour</li> <li>• Traumatic brain injury</li> <li>• Common entrapment neuropathies</li> <li>• Peripheral nerve injury</li> <li>• Spinal nerve root entrapment, spinal cord compression &amp; cauda equina compression</li> </ul>
<b>Endocrine</b>	<ul style="list-style-type: none"> <li>• Acute endocrine crises</li> </ul>	<ul style="list-style-type: none"> <li>• Thyroid and parathyroid disease</li> <li>• Adrenal gland disease</li> <li>• Diabetes</li> </ul>
<b>Paediatric</b>	<ul style="list-style-type: none"> <li>• Abdominal pain</li> <li>• Vomiting</li> <li>• Constipation</li> </ul>	<ul style="list-style-type: none"> <li>• Pyloric disease</li> <li>• Intussusception</li> <li>• Undescended testis, PPV and inguinal hernia</li> <li>• Phimosis</li> </ul>

### Peri-operative care

<b>Objective</b>	To assess and manage preoperative risk and prepare a patient for theatre, to conduct safe surgery in the operating theatre environment and to provide medical care for the patient in the post-operative period.
<u>Pre-operative care</u>	
<b>Knowledge</b>	<ul style="list-style-type: none"> <li>• Risk factors for surgery and scoring systems including ASA and VTE risk</li> <li>• Antibiotic and VTE prophylaxis guidelines</li> <li>• Principles of ambulatory day surgery including selection and discharge criteria</li> <li>• Ethical principles of, and legislative framework for, capacity and consent</li> <li>• Nutritional assessment methods and feeding options</li> </ul>
<b>Clinical skills</b>	<ul style="list-style-type: none"> <li>• The safe prescribing of pharmacological agents used for the treatment of chronic intercurrent disease, modified appropriately to the peri-operative period</li> <li>• The safe prescribing of measures for antibiotic and VTE prophylaxis</li> <li>• Assessing patient capacity</li> <li>• Obtaining consent for surgery</li> <li>• Communication with anaesthetic and scrub teams in advance</li> </ul>

	<ul style="list-style-type: none"> <li>• Planning perioperative nutrition in advance in partnership with the nutrition team</li> <li>• Engaging with multidisciplinary team discussions including those with oncology and interventional radiology</li> </ul>	
<b>Intra-operative care</b>		
<b>Knowledge</b>	<ul style="list-style-type: none"> <li>• The patient safety movement and the evidence behind the WHO check list</li> <li>• The principles of positioning and pressure area care</li> <li>• Radiation protection legislation</li> <li>• Guidelines for tourniquet use</li> <li>• Safety requirements for use of sharps, LASER and diathermy</li> <li>• What to do when something goes wrong</li> <li>• Anaesthetic monitoring techniques</li> </ul>	
<b>Clinical skills</b>	<ul style="list-style-type: none"> <li>• Maintenance of communication with theatre team throughout procedure</li> <li>• Crisis management</li> </ul>	
<b>Technical skills and procedures</b>	<ul style="list-style-type: none"> <li>• Safe positioning of the patient on the operating table</li> <li>• Safe intraoperative use of sharps and diathermy</li> <li>• Completion of team briefing</li> <li>• Completion of WHO check list (time out and sign out)</li> </ul>	<p>2</p> <p>3</p> <p>1</p> <p>3</p>
<b>Post-operative care</b>		
<b>Knowledge</b>	<ul style="list-style-type: none"> <li>• Delirium <ul style="list-style-type: none"> <li>○ Epidemiology and prognosis of delirium</li> <li>○ Causes and clinical features of delirium</li> <li>○ The impact of delirium on patient, family and carers</li> </ul> </li> <li>• Spectrum of post-operative complications</li> <li>• Guidelines for indications, prescription and management of complications of the transfusion of blood products</li> </ul>	
<b>Clinical skills</b>	<ul style="list-style-type: none"> <li>• Assessment of the unwell postoperative patient</li> <li>• Writing an operation note with clear post-operative instructions</li> <li>• Delivery of effective analgesia</li> <li>• Diagnosis and treatment of VTE</li> <li>• Post-operative monitoring and optimisation of fluid &amp; electrolyte balance</li> <li>• Diagnosis and treatment of post-operative infection and sepsis</li> <li>• Diagnosis and treatment of transfusion reactions</li> <li>• Delirium <ul style="list-style-type: none"> <li>○ Assessment of cognitive impairment seeking to differentiate dementia from delirium, with the knowledge that delirium is common in people with dementia</li> <li>○ Management of patients with delirium including addressing triggers and using non-pharmacological and pharmacological methods where appropriate</li> <li>○ Explanation of delirium to patients and advocates</li> </ul> </li> </ul>	

## Basic surgical skills

<b>Objective</b>	To acquire and develop throughout the programme those generic technical skills common to all or many areas of surgical practice.	
<b>Knowledge</b>	Surgical wounds: <ul style="list-style-type: none"> <li>• Classification of surgical wounds</li> <li>• Principles of wound management</li> <li>• Principles underlying incision placement including cosmesis and Langer's lines, vascularity and function</li> <li>• Principles underlying wound closure including suture method, needle types and the physical and biological characteristics of suture material</li> </ul> The range, nomenclature and functional design of surgical instruments	
<b>Technical skills and procedures</b>	Effective hand washing, gloving and gowning	4
	Accurate, effective and safe administration of local anaesthetic	3
	Preparation and maintenance of an aseptic field	3
	Incision of skin and subcutaneous tissue: <ul style="list-style-type: none"> <li>• Ability to use scalpel, cutting diathermy and scissors</li> <li>• Control of superficial bleeding using diathermy and ligation</li> </ul>	3
	Closure of skin and subcutaneous tissue: <ul style="list-style-type: none"> <li>• Accurate and tension free apposition of wound edges</li> <li>• Knot tying by hand and instrument</li> </ul>	3
	Selection and placement of tissue retractors	2
	Insertion, fixation and removal of drains	2
	Appropriate selection and use of instruments to handle tissue with minimal trauma	2
	Taking biopsies, safe labelling and completion of request forms	2
	Anticipation of needs of surgeon when assisting	2
	Co-ordination of camera and instrument from a 2-dimensional display during surgical endoscopy	

## Critical care

<b>Objective</b>	To demonstrate the knowledge and clinical and technical skills necessary to contribute to the management of critically unwell patients suffering from traumatic injuries or sepsis.	
<u>Trauma management</u>		
<b>Knowledge</b>	A systematic, prioritised method of trauma management such as that set out by the American College of Surgeons, Committee on Trauma Scoring systems for assessment of global injury severity including ISS	
<b>Clinical skills</b>	Resuscitation and early management of the patient who has sustained thoracic, head, spinal, abdominal and/or limb injury according to ATLS®, APLS or European Trauma Course guidelines	
<b>Technical skills and procedures</b>	Chest drain insertion	2
<u>Sepsis management</u>		
<b>Knowledge</b>	A systematic, prioritised method of managing the septic patient Recommendations of the surviving sepsis campaign including the "Sepsis 6"	
<b>Clinical skills</b>	Resuscitation and early management of the septic patient	
<b>Technical skills and procedures</b>	Surgical drainage of pus	2

<u>Intensive care medicine</u>	
<b>Knowledge</b>	Classification of levels of critical care Principles of organ support including: <ul style="list-style-type: none"> <li>• Invasive monitoring of circulation and inotropic support</li> <li>• Mechanical ventilation and tracheostomy</li> </ul> Haemofiltration and haemodialysis
<b>Clinical skills</b>	Assessment of a patient receiving critical care Surgical contribution, in discussion with the critical care team, to the management plan of a patient receiving critical care

### **Surgical care of the paediatric patient**

<b>Objective</b>	To assess and manage children with surgical problems, understanding the similarities and differences from adult surgical patients, within the appropriate legal and safeguarding frameworks.
<b>Knowledge</b>	An awareness of the normal physiological parameters at different ages Principles of vascular access in children Working knowledge of trust and Local Safeguarding Children Boards (LSCBs) and Child Protection Procedures Child protection law and the issues of consent in childhood Working knowledge of types and categories of child maltreatment
<b>Clinical Skills</b>	Recognise limitations of own knowledge and experience and seek early advice from dedicated paediatric teams History and examination of paediatric surgical patient Recognition of the unwell child Assessment of respiratory and cardiovascular status in a child Obtaining consent for operative treatment in a paediatric patient

### **Management of the dying patient**

<b>Objective</b>	To demonstrate the knowledge and clinical skills necessary to manage the transition from life to death including palliation of symptoms, certification of death and the discussion of resuscitation status and organ donation.
<b>Knowledge</b>	Awareness of the public debate around resuscitation and palliative care, and organ donation Classification of organ donors The role of the coroner and the certification of death
<b>Clinical Skills</b>	Assessment and control of distress in the dying patient in collaboration with a palliative care team The diagnosis of death following irreversible cessation of brain-stem function Discussion of best interest including resuscitation status and limits of care with patient advocate Discussion of organ donation with family in collaboration with transplant coordinators

## Health promotion

<b>Objective</b>	This syllabus module aims to enable all surgical trainees to develop the competencies necessary to support patients in caring for themselves; to empower them to improve and maintain their own health.
<u>General aspects</u>	
<b>Knowledge</b>	<p>Damaging health and social issues such as excessive alcohol consumption, obesity, smoking and illicit drugs and the harmful effects they have on health</p> <p>The connection between mental health and physical health</p> <p>The importance of health education for promoting self-care for patients</p> <p>The GMC's requirement that doctors protect patients and colleagues from any risk posed by their own health</p>
<b>Clinical Skills</b>	<p>Modification of explanations to match the intellectual, social and cultural background of individual patients</p> <p>Patient centred care</p> <p>Identification and utilisation of opportunities to promote health including positive role modelling</p>
<b>Reference to other relevant syllabus items</b>	<ul style="list-style-type: none"> <li>• Nutrition (Module 5, Perioperative Care)</li> <li>• Drugs and alcohol (Module 1, Pharmacology)</li> <li>• Screening (Module 1, Pathology)</li> <li>• Child protection (Module 7, Surgical Care of the Paediatric Patient)</li> </ul>
<u>Obesity</u>	
<b>Knowledge</b>	<p>Classification of excess body mass</p> <p>The health risks posed by obesity including an increased incidence of coronary heart disease, type 2 diabetes, hypertension, stroke, and some major cancers</p> <p>Social, psychological and environmental factors that underpin obesity</p> <p>Physiological and metabolic effects of obesity on the surgical patient</p> <p>Available treatments for obesity including diet, exercise, medication and surgery</p>
<b>Clinical Skills</b>	<p>The ability to treat patients who are obese in a supportive and sensitive manner</p> <p>Assess and explain the higher risks for obese individuals undergoing surgery</p> <p>Management of cardiovascular, respiratory and metabolic complications in patients with obesity undergoing surgery</p> <p>Provide advice and guidance about weight loss to overweight and obese patients within the context of a multidisciplinary team</p>
<u>Dementia</u>	
<b>Knowledge</b>	<p>Clinical features of dementia and the distinction between it and delirium</p> <p>The impact of dementia on patient, family and carers</p> <p>Principles and key provisions of the relevant legislation regarding the safeguarding of vulnerable adults across the UK, such as the Mental Capacity Act 2005 and the Adult Support and Protection (Scotland) Act 2007</p>
<b>Clinical Skills</b>	<p>Recognises cognitive impairment and appropriately refers</p> <p>Management of surgical patients in the context of their dementia</p> <p>A range of techniques and strategies to communicate effectively with people with dementia and their carers/families</p> <p>Assessment of capacity, involvement of advocates and documentation of consent and best interests</p>

<u>Exercise and physical fitness</u>	
<b>Knowledge</b>	Physical inactivity as an independent risk factor for ill health and obesity Relationship between physical exercise programmes and healthy eating and smoking cessation programmes Government behaviour change programmes such as 'Let's Get Moving' and 'Shift into Sports'
<b>Clinical Skills</b>	Utilisation of all patient interactions as opportunities for health and fitness promotion with particular reference to the prevention and management of long-term chronic conditions such as coronary heart disease, diabetes, hypertension, obesity, cancer, osteoporosis, peripheral vascular disease and depression and the promotion of health and well being Modification of advice on physical exercise to the specific requirements of individual patients

## Modules

<b>Airway Module</b>	Competence Level		
	P2	P3	SI
<b>The assessment and management of the Airway in Oral and Maxillofacial Surgery.</b>			
<b>Applied Knowledge</b>			
<b>Anatomy</b>			
Applied anatomy of airway, anterior neck	4	4	4
Applied anatomy of needle and surgical cricothyroidotomy	4	4	4
Applied anatomy of surgical tracheostomy (temporary or permanent)	4	4	4
Applied anatomy of percutaneous tracheostomy	2	3	4
Anatomical abnormalities/alterations (craniofacial, paediatrics, trauma, cervico-fascial Infection, obesity)	4	4	4
Glasgow Coma scale (relevance to need for definitive airway)	4	4	4

ASA Classification; ASA and/or ATLS Difficult Airway Algorithm	3	3	3
Classification systems (e.g. Mallampati, LEMON, Upper Lip Bite Test),	3	3	3
Criteria for decannulation	4	4	4
<b>Pathology</b>			
Congenital (e.g. craniofacial syndromes) and acquired diseases or conditions (e.g. obesity, infection, epiglottitis, previous surgery/radiotherapy) with potential to compromise/alter the airway	4	4	4
<b>Applied Physiology</b>			
Physiology of speech and swallowing	2	2	2
Physiology of cough reflex	2	2	2
Pulse oximetry and capnography	2	2	2
Criteria for safe extubation (air leak test, imaging, examination)	4	4	4
Ventilation (volume, pressure)	2	2	2
<b>Surgical Equipment</b>			
Airway adjuncts (e.g. Guedel, nasopharyngeal, laryngeal mask)	4	4	4
Emergency Cricothyroidostomy equipment	4	4	4
Tracheostomy kit	4	4	4

<b>Indications and Risks</b>			
Factors contributing to, and prediction of airway complications	4	4	4
Management strategies for potential complications	4	4	4
Complications of emergency surgical airway airways	4	4	4
<b>Critical Conditions causing acute airway obstruction – basic science, pathology, complications</b>			
Cervico-fascial Infection	4	4	4
Trauma (supra- and sub-glottic; including burns)	4	4	4
Tumour	4	4	4
<b>Consent</b>			
Moral and medico-legal competence	4	4	4
<b>Clinical Skills (Index procedures *)</b>			
<b>Airway Assessment</b>			
Clinical examination (e.g. thyro-mental distance, scars, cervical spine), supine patient with maxillofacial injuries	4	4	4
Recognition of need for airway intervention/definitive airway	4	4	4

Recognition of need for ventilation	4	4	4
Protecting airway during cervical spine collar placement	4	4	4
<b>Diagnostics</b>			
Principles, indications and interpretation of imaging modalities (e.g. CT, MRI, soft tissue radiography)	4	4	4
Endoscopy	4	4	4
<b>Non-surgical airway maintenance techniques</b>			
Management of shared airway with anaesthesia colleagues	4	4	4
Chin lift	4	4	4
Insertion of airway adjuncts (e.g. Oro-/Naso-pharyngeal airway, LMA)	3	4	4
Endotracheal Intubation	3	3	4
Needle cricothyroidotomy	4	4	4
Tracheostomy changes	4	4	4
Use of Bougies	3	3	4
<b>Operative Management (Index procedures = * )</b>			
Percutaneous tracheostomy * (Open surgical and percutaneous)	2	3	4
Tracheostomy	4	4	4

Submental Intubation	3	4	4
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<b>Craniofacial Trauma Module</b> The assessment and management of a patient presenting with trauma to the head, face and neck	Competence Level		
	P2	P3	SI
<b>Applied Knowledge</b>			
<b>Anatomy</b>			
Applied anatomy of the hard tissues of the head and neck	4	4	4
Applied anatomy of the soft tissues of the head and neck	4	4	4
Intra-oral approaches to the facial skeleton	4	4	4
Extra-oral approaches to the facial skeleton	4	4	4
<b>Pathology</b>			
Mechanism of facial fractures	4	4	4
Principles of wound healing	4	4	4
Principles of fracture healing	4	4	4
Principles of nerve healing	4	4	4
Principles of shock	4	4	4
Metabolic and immunological response to trauma	4	4	4

Principles of head injury	4	4	4
<b>Physiology</b>			
Physiology of sight	3	3	3
Physiology of the nasal cavity	3	3	3
Physiology of the naso-lacrimal system	3	3	3
<b>Diagnostics</b>			
Principles, indications and interpretation of imaging modalities	4	4	4
Principles, indications and interpretation of electrophysiological investigations	2	3	3
<b>Classification of craniofacial injuries</b>			
Classification of facial fractures	4	4	4
Classification of soft tissue injuries	4	4	4
Classification of nerve injuries	4	4	4
Classification of dento-alveolar injuries	4	4	4
<b>Pain</b>			
Pain and pain relief in the trauma patient	3	4	4

<b>Psychology</b>			
Psychological effects and management of the trauma patient	3	4	4

<b>Biomechanics</b>			
Biomechanics of musculoskeletal tissues	4	4	4
Biomechanics of fracture fixation	4	4	4
Properties of biomaterials including plates, autografts, allografts, sutures	4	4	4
<b>Complications and risks of conservative and operative management</b>			
Factors contributing to and prediction of potential complications and risks	3	4	4
Management strategies for potential complications	3	4	4
<b>Critical Conditions – basic science, pathology, complications</b>			
Acute airway obstruction	4	4	4
Retro-bulbar haemorrhage	4	4	4
Life-threatening haemorrhage	4	4	4

<b>Consent</b>			
Moral and medico-legal competence	4	4	4
<b>Clinical Skills</b>			
Assessment, diagnosis and treatment planning			
Soft tissue injury	4	4	4
Neurovascular injury	3	4	4
Dento-alveolar injury	4	4	4
Fractures of the cranio-facial skeleton	3	4	4
Multiply-injured patient	3	4	4
Management of the airway	4	4	4
Virtual planning	2	3	4
Operative Management (Index procedures = * )			
Infiltration and nerve blocks for local anaesthesia	4	4	4
Soft tissue wound repair *	4	4	4
Neurovascular tissue tissue repair	3	3	4
Naso-lacrimal system	3	3	3
Parotid duct injury	3	4	4
Dental injury and dento-alveolar fractures	4	4	4

Techniques for removal of damaged teeth	4	4	4
Closed reduction and fixation of the facial skeleton (incl. intermaxillary fixation)	4	4	4
Fractures of the mandible *	4	4	4
Fractures of the zygoma *	4	4	4
Fractures of the orbital floor and walls *	3	4	4
Fractures of the nasal bones	4	4	4
Fractures of the naso-orbital complex	3	4	4
Management of Le Fort fractures *	3	4	4
Management of frontal bone fractures	3	4	4
Management of pan-facial fractures	3	4	4
Lateral canthopexy	4	4	4
Tracheostomy	4	4	4
Packing of the anterior and posterior nasal cavities	4	4	4

<b>Jaw deformity Module</b>	Competence level		
	P2	P3	SI
The assessment and management of a patient presenting with deformity of the jaws and face			
<b>Applied Knowledge</b>			
<b>Anatomy</b>			
Applied anatomy of the hard tissues of the head and neck	4	4	4
Applied anatomy of the soft tissues of the head and neck	4	4	4
Intra-oral approaches to the facial skeleton	4	4	4
Extra-oral approaches to the facial skeleton	4	4	4
<b>Pathology</b>			
Abnormalities of condylar growth	4	4	4
Mandibular asymmetry, hemi-mandibular hyperplasia / hypertrophy	4	4	4
Aetiology of anterior open bite	4	4	4
Hemi-facial microsomia	3	4	4
Treacher-Collins syndrome	3	4	4
Craniofacial syndromes (Aperts, Crouzons) and their relationship to facial deformity	3	4	4
Principles of bone healing	4	4	4
Principles of distraction osteogenesis	4	4	4

<b>Orthodontics</b>			
Classification of occlusal relationships	4	4	4
Vertical jaw relationships	4	4	4
Transverse relationships	4	4	4
Principles of occlusal compensation	4	4	4
Principles of arch co-ordination and decompensation in treatment planning	4	4	4
Role of dental extractions including third molars in treatment planning	4	4	4
Principles of orthodontic management of open bite in the orthognathic patient	4	4	4
Role of post-operative orthodontic management	4	4	4
Options for non-surgical approach to management	2	3	4
<b>Assessment</b>			
Dentofacial norms including racial variations	4	4	4
Cephalometric norms	4	4	4
Role of imaging modalities in diagnosis and treatment planning	4	4	4
<b>Treatment planning</b>			
Principles of treatment planning	4	4	4

Principles of model surgery, virtual planning systems and wafer construction	3	4	4
Role of patient specific implants in treatment planning	3	4	4

Biomechanics			
Biomechanics of fixation	4	4	4
Properties of biomaterials including plates, autografts, allografts, sutures	4	4	4
Hierarchy of stability of orthognathic procedures	4	4	4
Principles of orthodontic and surgical relapse	4	4	4
Risk factors predisposing to relapse	4	4	4
<b>Post- traumatic deformity</b>			
Orthognathic principles as they apply to post-traumatic deformity	3	4	4
Identification and assessment of soft tissue deformity	3	4	4
Assessment of mid-face and zygomatic deformity	3	4	4
Identification and assessment of orbital dystopia/enophthalmos	3	4	4
Management of scars	4	4	4
Complications of orthognathic procedures			

Factors contributing to and prediction of potential complications and risks	4	4	4
Management strategies for potential complications	4	4	4
<b>Clinical Skills</b>			
Assessment, diagnosis and treatment planning			
Clinical assessment and diagnosis of facial/jaw deformity including psychosocial issues	4	4	4
Clinical assessment and diagnosis of relevant psychosocial issues	4	4	4
Assessment of dental and periodontal condition appropriate to orthognathic treatment	4	4	4
Undertaking of relevant dental and face bow records	4	4	4
Formulation of comprehensive, holistic treatment plan in the MDT setting	3	4	4
Non surgical approach	2	4	4
Consent			
Moral and medico-legal competence	4	4	4
Procedure specific complications of surgical procedures	4	4	4
Operative Management (Index procedures = * )			
Intra-oral approaches to maxilla & mandible	4	4	4
Extra-oral approaches to mandible	3	4	4

Sub-mental approach to chin	3	4	4
Cutaneous approaches to mid-face	3	4	4
Zygomatic osteotomy	2	4	4
Coronal flap	3	4	4
Le Fort 1 *	3	4	4
Variants of Le Fort 1	2	4	4
Le Fort 1 with mid-line expansion	3	4	4
Segmental le Fort 1 Osteotomy (Anterior and Lateral segments)	2	4	4
Le Fort 2 Osteotomy	2	3	4
Le Fort 3 Osteotomy	2	3	3
Surgically assisted rapid palatal expansion	3	4	4
Sagittal split osteotomy of mandibular ramus *	3	4	4
Vertical sub-sigmoid osteotomy Intra-oral & extra-oral	2	3	4
Inverted "L" osteotomy of mandible	2	3	4
Body osteotomy of mandible	2	3	4
Genioplasty	3	4	4
Costo-chondral graft to mandible	2	4	4
Harvest of iliac crest bone	3	4	4
Harvest of costo-chondral graft	2	4	4

Exteriorisation of the inferior dental nerve	2	4	4
Alloplastic onlays chin and malar	2	4	4

<b>Facial Pain and TMJ Module</b> <b>The assessment and management of a patient presenting with pain affecting the head and neck region.</b>	Competence Level		
	P2	P3	SI
<b>Applied Knowledge</b>			
<b>Anatomy</b>			
Neuroanatomy of orofacial sensation, secretomotor function & taste	4	4	4
Applied anatomy of the craniofacial skeleton and soft tissues	4	4	4
Applied anatomy of the oral cavity and mucosa	4	4	4
<b>Physiology</b>			
Physiology of pain	4	4	4
Physiology of the oral mucosa	4	4	4
Physiology of the temporomandibular joint and associated structures	4	4	4
<b>Pathology</b>			
Dental pain	4	4	4
Neuropathic pain conditions affecting the oro-facial region	4	4	4

Headache types affecting the facial region	4	4	4
Orofacial pain syndromes	4	4	4
Disorders affecting the temporomandibular joint	4	4	4
Vasculitis	4	4	4
<b>Diagnostics</b>			
Principles, indications and interpretation of imaging modalities	3	4	4
Principles, indications and interpretation of haematological investigations	3	4	4
<b>Prescribing and therapeutics</b>			
Indications and risks of analgesia in the treatment of orofacial pain	4	4	4
Role and indications of medication in the treatment of orofacial pain	4	4	4
Drug interactions affecting orofacial sensation	4	4	4
Indications for bite raising appliances	4	4	4
Role and indications for physiotherapy	4	4	4
Indications for total TMJ replacement	3	3	4
<b>Psychology</b>			
Psychological effects influencing orofacial pain	3	3	4

Role and indications for psychological input	3	3	4
<b>Multidisciplinary Care</b>			
The role of other specialties and healthcare teams in management	3	3	4
Role of non-OMFS procedures in pain management e.g. radiofrequency ablation	3	3	4
<b>Clinical Skills</b>			
Assessment, diagnosis and treatment planning			
Comprehensive taking of pain history	4	4	4
Accurate diagnosis.	3	4	4
Counselling of patient with chronic pain	3	4	4
Appropriate involvement of and referral to other disciplines.	3	4	4
Ability to perform an appropriate head & neck, neurological and locomotor examination	4	4	4
<b>Consent</b>			
Moral and medico-legal competence	4	4	4
<b>Operative Management (Index procedures = * )</b>			
Temporal artery biopsy	3	4	4

Injection of neurotoxin to muscles of mastication	3	4	4
Injection into joint	3	3	4
Arthrocentesis of the temporomandibular joint*	3	4	4
Level 1 arthroscopy of TMJ	2	3	4
Eminectomy	2	3	4
Condylar shave	2	3	4
Discectomy	2	3	4
Disc plication	1	2	4
Total replacement of the temporomandibular joint	2	3	4

<p style="text-align: center;"><b>Head and Neck Module</b></p> <p>The assessment and management of a patient presenting with malignant conditions of the head and neck</p>	Competence Level		
	P2	P3	SI
<b>Applied Knowledge</b>			
<b>Anatomy</b>			
Applied surgical anatomy of the hard & soft tissues of the head and neck	4	4	4
Surgical access approaches to the oropharynx, facial skeleton and skull base	4	4	4
<b>Pathology &amp; Diagnostics excluding thyroid and parathyroid glands</b>			

Pathology and classification of benign tumours of the head and neck	4	4	4
Molecular pathology of H&N Cancer	3	4	4
Aetiology and risk factors for H&N Cancer	4	4	4
Staging for H&N Cancer (relevant subsites & tumour types)	4	4	4
Prognostic features in H&N Cancer	4	4	4
Systemic effects of malignancy	4	4	4
Role and relevance of immune system in cancer (and its management)	3	3	3
Pathological techniques and relevance to diagnostic process	3	3	4
<b>Pathology &amp; Diagnostics of thyroid and parathyroid glands</b>			
Classification of thyroid tumours	3	3	4
Pathology of thyroid and parathyroid tumours	3	3	4
Role of ultrasound and FNAC in diagnosis of thyroid tumours	3	3	4
Staging of thyroid cancers	2	2	4
<b>Physiology</b>			
Physiology of speech and swallowing	3	3	3
Physiology of healing tissues (hard & soft tissues)	4	4	4
Physiology of thyroid and parathyroid glands	2	2	3

<b>Radiology/Imaging and special investigations</b>			
Principles, indications and interpretation of imaging modalities	4	4	4
Principles, indications and interpretation of surgical-adjunctive imaging (inc ultrasound, sentinel lymph node biopsy/scintigraphy)	3	4	4
Classification of mandibular/maxillary resections (and relationship to management paradigms)			
Classification of midfacial/maxillary defect	4	4	4
Classification of mandibular defect	4	4	4
Classification of osteoradionecrosis	4	4	4
Classification of Medicine-Related Osteonecrosis of the Jaw (MRONJ)	4	4	4
<b>Psychology</b>			
Psychological effects and management of the oncology patient	4	4	4
Quality of life (assessment of, indicators of and effectors of QoL in oncology patients)	4	4	4

<b>Biomechanics</b>			
Properties of biomaterials including plates, autografts, allografts, sutures	4	4	4
Osseointegration	4	4	4

<b>Complications and risks of surgical interventions for H&amp;N cancer</b>			
Factors contributing to and prediction of potential complications and risks (local & systemic)	3	4	4
Pre-treatment assessment of risk	3	4	4
Mitigation of risk in oncology patient	3	4	4
Free tissue transfer/microvascular compromise & salvage (avoidance and management strategies/techniques)	3	4	4
<b>Critical Conditions</b>			
Acute airway obstruction	4	4	4
Life-threatening haemorrhage	4	4	4
Malignancy of the head and neck (diagnosis and appropriate initial management)	4	4	4
<b>Surgical Instrumentation</b>			
Surgical armamentarium (incl. Laser, diathermy, harmonic scalpel, etc.)	3	4	4
Critical equipment (operative microscope & instruments, microvascular adjuncts; coupler, Doppler – handheld and implantable etc.)	3	4	4
Reconstructive adjuncts in planning & surgical treatment (customisation, preplanned reconstruction)	3	4	4
Pharmaceutical aids in microvascular reconstruction	3	4	4

<b>Non-Surgical &amp; Adjuvant Treatments</b>			
Physiology, biology and risks of radiotherapy, chemotherapy and immune therapies including principles of planning, implementation and complications.	3	3	3
Role of allied health professionals in multidisciplinary care of oncology patient	3	4	4
Assessment and management of critical peri-operative needs (e.g. NG/PEG, safety of swallow, etc.)	3	3	4
<b>Clinical Skills</b>			
<b>Assessment, diagnosis and treatment planning</b> (For each - site, histology, staging, functional implications, treatment modalities, reconstructive options, rehabilitation)			
Tumours confined to soft tissues of H&N	4	4	4
Tumours involving facial skeleton/mandible	4	4	4
Salivary tumours	4	4	4
<b>Assessment and management</b>			
Management of the airway in H&N oncology patients	4	4	4
<b>Consent</b>			
Moral, ethical and medico-legal competence	4	4	4

<b>Pain</b>			
Pain and pain management in the oncology patient (pre-treatment, post-operative, maintenance, & palliative settings)	4	4	4
<b>Operative Management (Index procedures = * )</b>			
Examination under anaesthesia & pan-endoscopy of upper aerodigestive tract	3	4	4
Tracheostomy*	4	4	4
Neck dissection*	4	4	4
Cervical lymph node biopsy*	4	4	4
Submandibular &/or sublingual gland removal*	4	4	4
Parotidectomy, partial parotidectomy and extracapsular dissection*	3	4	4
Surgical access to the oropharynx, facial skeleton and skull base	3	4	4
Intraoral resection of soft tissue-based malignancy*	3	4	4
Mandibular rim resection*	3	4	4
Segmental mandibulectomy*	3	4	4
Maxillectomy/extended maxillectomy*	3	4	4
Local flap reconstruction	3	4	4
Pedicle flap reconstruction	3	4	4
Radial forearm free flap*	3	4	4

Anterolateral thigh free flap*	3	3	4
Fibula free flap*	3	3	4
Deep circumflex Iliac artery flap*	3	3	4
Sub-scapular/thoraco-dorsal artery flap*	3	3	4
Recipient vessel preparation and microvascular setup	2	3	4
Arterial anastomosis*	2	3	4
Venous anastomosis*	2	3	4
Neural anastomosis	2	3	4
Dental implants	3	4	4
Zygomatic implants	2	3	4

<b>Conditions of the Salivary Glands Module</b> <b>The assessment and management of a patient presenting with conditions of the salivary glands</b>	Competence Level		
	P2	P3	SI
<b>Applied Knowledge</b>			
Anatomy			
Applied anatomy of the major salivary glands	4	4	4
Applied anatomy of the oral cavity and lingual nerve	4	4	4
Intra-oral approaches to the salivary ducts	4	4	4

Extra-oral approaches to the salivary glands	4	4	4
Anatomy of the facial nerve	4	4	4
<b>Pathology</b>			
Pathology of obstructive salivary gland disease	4	4	4
Pathology of salivary gland tumours	4	4	4
Pathology of mucous cysts of the sublingual salivary gland/ ranula	4	4	4
Pathology of inflammatory disease of the salivary glands	4	4	4
Pathology of facial nerve weakness	4	4	4
<b>Physiology</b>			
Physiology of salivary gland function	4	4	4
<b>Diagnostics</b>			
Principles, indications and interpretation of imaging modalities	4	4	4
Principles, indications and interpretation of electrophysiological investigations	3	3	3
Principles, indications and interpretation of haematological investigations	4	4	4
Principles, indications for FNAC technique	4	4	4

<b>Classification of Salivary Gland Swellings</b>			
Classification of obstructive salivary gland disease	4	4	4
Classification of salivary gland tumours	4	4	4
Classification of inflammatory conditions of the salivary glands	4	4	4
<b>Pain</b>			
Pain and pain relief in patients with salivary gland infection	3	4	4
<b>Systemic disease affecting the salivary glands</b>			
The role of Rheumatology in the management of Sjogren's syndrome and other inflammatory conditions of the salivary glands	3	3	3
<b>Radiology</b>			
Principles, indications and interpretation of radiological imaging of the salivary glands	3	3	3
Principles, indications and interpretation of sialography	3	3	3
<b>Complications and risks of conservative and operative management</b>			
Factors contributing to and prediction of potential complications and risks	4	4	4

Critical Conditions			
Malignancy of the head and neck (diagnosis and appropriate initial management)	4	4	4
<b>Clinical Skills</b>			
<b>Assessment, diagnosis and treatment planning</b>			
Salivary gland stones	4	4	4
Salivary gland strictures	3	4	4
Salivary gland tumours	4	4	4
Sialadenitis	4	4	4
Ranula/ mucocele	4	4	4
Parotid duct injury	3	4	4
Inflammatory conditions of the salivary glands	4	4	4
<b>Consent</b>			
Moral and medico-legal competence	4	4	4
<b>Operative Management (index procedure =*)</b>			
Neurovascular repair	2	3	4
Parotid duct injury	3	4	4

Removal of a stone from the submandibular duct	4	4	4
Excision of a neoplasm of a minor salivary gland	3	4	4
Sublingual gland excision	3	4	4
Submandibular gland excision	3	4	4
Partial/Superficial parotidectomy*	3	4	4
Total conservative parotidectomy	3	4	4
Radical parotidectomy	2	3	4
Extra capsular dissection*	3	4	4
Parotid strictures and megaduct	2	3	4
Sublingual gland mucous cyst/ ranula	3	4	4
Endoscopic management of salivary stone/stricture	2	3	4

<b>Conditions of the oral mucosa</b>	Competence Level		
	P2	P3	SI
<b>The assessment and management of a patient presenting with conditions of the oral mucosa</b>			
<b>Applied Knowledge</b>			
<b>Anatomy</b>			
Applied anatomy of the oral mucosa	4	4	4
Applied anatomy of the lymphatic drainage of the oral mucosa	4	4	4
Applied anatomy of major & Minor salivary glands	4	4	4

Applied neuroanatomy of the sensory, sympathetic & parasympathetic & taste of the mouth	4	4	4
<b>Pathology</b>			
Pathology of benign oral mucosal disease	4	4	4
Pathology of vesicular bullous disease affecting the oral cavity	4	4	4
Pathology of malignant oral mucosal lesions	4	4	4
Pathology of infective diseases of the oral mucosa	4	4	4
Pathology of localised & systemic inflammatory disease of the oral mucosa	4	4	4
Pathology of skin manifestations of disease affecting the oral mucosa	4	4	4
<b>Physiology</b>			
The functions of the oral mucosa	4	4	4
The functions of saliva	4	4	4
The physiology of sensation and pain affecting the mouth and face	4	4	4
<b>Diagnostics</b>			
Principles, indications and interpretation of microbiological investigations	4	4	4
Principles, indications and interpretation of cytology and histology	3	4	4

Principles, indications and interpretation of radiological investigations	4	4	4
Principles, indications and interpretation of haematological investigations	4	4	4
<b>Classification of conditions of the oral mucosa</b>			
Classification of ulcerative conditions affecting the oral mucosa	4	4	4
Classification of vesicular bullous conditions affecting the oral mucosa	4	4	4
Classification of pre-malignant oral mucosal lesions	4	4	4
Classification of malignant oral mucosal lesions	4	4	4
Classification of infective diseases of the oral mucosa	4	4	4
Classification of inflammatory disease of the oral mucosa	4	4	4
Classification of skin manifestations affecting the oral mucosa	4	4	4
<b>Multi- disciplinary care</b>			
The role of the multidisciplinary team including primary care	4	4	4
<b>Psychology</b>			
Psychological effects and management of the patient with an oral mucosal condition	3	4	4

<b>Pain</b>			
Pain relief in the patient with conditions of the oral mucosa	4	4	4
<b>Radiology</b>			
Principles, indications and interpretation of imaging of salivary glands	4	4	4
<b>Pharmacology</b>			
Pharmacology of drugs causing xerostomia	3	4	4
Pharmacology of drugs causing oral mucosal disease	3	4	4
Pharmacology of drugs causing bone disease	3	4	4
<b>Critical Conditions</b>			
Malignancy of the oral mucosa (diagnosis and appropriate initial management)	4	4	4
<b>Clinical Skills</b>			
<b>Assessment, diagnosis and treatment planning</b>			
Oral ulceration	3	4	4
Vesicular bullous lesions	3	4	4
White patches and leukoplakia	3	4	4

Infective disease of the oral mucosa	3	4	4
Inflammatory disease of oral mucosa	3	4	4
Skin manifestations of conditions of the oral mucosa	3	4	4
Oral manifestations of systemic disease	3	4	4
<b>Consent</b>			
Moral and medico-legal competence	4	4	4
<b>Conservative management (including prescribing)</b>			
Prescribing topical oral mucosal medication, baseline investigations, exclusion criteria, monitoring requirements	4	4	4
Prescribing systemic steroids, baseline investigations, exclusion criteria, monitoring requirements	3	4	4
Prescribing systemic immune suppressants, baseline investigations, exclusion criteria, monitoring requirements	3	4	4
<b>Operative Management (Index procedures = *)</b>			
Infiltration and nerve blocks for local anaesthesia	4	4	4
Surgical excision & biopsy of oral mucosal lesions *	3	4	4
Biopsy of the minor and major salivary glands	3	4	4

<b>Conditions of the skin module</b> <b>The assessment and management of a patient presenting with conditions of the skin of the head and neck</b>	Competence Level		
	P2	P3	SI
<b>Applied Knowledge</b>			
<b>Anatomy</b>			
Applied anatomy of the skin	4	4	4
Applied anatomy of the lymphatic drainage of the skin of the head and neck	4	4	4
Applied anatomy of structures deep to the skin of the head and neck	4	4	4
<b>Pathology</b>			
Pathology of benign skin lesions	4	4	4
Pathology of pre-malignant skin lesions	4	4	4
Pathology of malignant skin lesions	4	4	4
Pathology of infective diseases of the skin	4	4	4
Pathology of inflammatory disease of the skin of the head and neck	4	4	4
Pathology of skin manifestations of oral medicine conditions of the oral mucosa	4	4	4

<b>Physiology</b>			
The functions of the skin	4	4	4
<b>Diagnostics</b>			
Principles, indications and interpretation of dermoscopy	4	4	4
Principles, indications and interpretation of cytology and histology	3	4	4
Principles, indications and interpretation of radiological investigations	4	4	4
Principles, indications and interpretation of haematological investigations	4	4	4
Classification of skin conditions			
Classification of benign skin lesions	4	4	4
Classification of pre-malignant skin lesions	4	4	4
Classification of malignant skin lesions	4	4	4
Classification of infective diseases of the skin	4	4	4
Classification of inflammatory disease of the skin of the head and neck	4	4	4
Classification of skin manifestations of oral medicine conditions of the oral mucosa	4	4	4
<b>Multi- disciplinary care</b>			
	4	4	4

The role of the local and specialist skin MDT in the management of the skin cancer patient			
<b>Psychology</b>			
Psychological effects and management of the patient with a skin condition	3	4	4
<b>Pain</b>			
Pain relief in the patient with a condition of the skin	4	4	4
<b>Dermatology</b>			
The role of the dermatologist in the management of conditions of the skin The non- surgical management of lesions and conditions of the skin	3	4	4
<b>Radiology</b>			
Principles, indications and interpretation of imaging of primary malignant skin lesions	4	4	4
Principles, indications and interpretation of imaging of malignant skin lesions for regional metastasis	4	4	4
Principles, indications and interpretation of imaging of distant metastatic skin malignancy	3	4	4
<b>Non-surgical management of skin cancer</b>			
Principles and indication for radiotherapy in skin conditions	3	4	4

Role of chemotherapy, targeted therapy and immunotherapy in skin cancer management	3	4	4
<b>Complications and risks of conservative and operative management</b>			
Factors contributing to and prediction of potential complications and risks	4	4	4
Management strategies for potential complications	4	4	4
<b>Critical Conditions – basic science, pathology, complications</b>			
Sepsis of the head and neck (cellulitis, necrotising fasciitis, post-operative infections)	4	4	4
Malignancy of the skin of the head and neck including lip	4	4	4
Relevant Guidelines			
National guidelines on the management of skin cancer	4	4	4
<b>Clinical Skills</b>			
<b>Assessment, diagnosis and treatment planning</b>			
Benign skin lesions	3	4	4
Pre-malignant skin lesions	3	4	4
Malignant skin lesions (including staging)	3	4	4
Infective diseases of the skin	3	4	4

Inflammatory disease of the skin of the head and neck	3	3	3
Skin manifestations of conditions of the oral mucosa	4	4	4
<b>Consent</b>			
Moral and medico-legal competence	4	4	4
<b>Operative Management (Index procedures = *)</b>			
Infiltration and nerve blocks for local anaesthesia	4	4	4
Surgical excision of skin lesions *	3	4	4
Reconstruction of skin defects with partial thickness skin graft *	3	4	4
Mohs surgical excision of skin lesions	1	1	1
Reconstruction of skin defects with full thickness skin graft *	3	4	4
Reconstruction of skin defects with local flaps *	2	4	4
Parotid/cervical lymph node biopsy *	2	4	4
Sentinel node biopsy	2	3	4
Therapeutic lymphadenectomy for regional metastatic skin cancer *	2	3	4

<b>Restoration of Normal Aesthetic Form and Function Module</b> The assessment and management of a patient requiring restoration of normal aesthetic <u>form and function</u>	Competence Level		
	P2	P3	SI
<b>Applied Knowledge</b>			
<b>Anatomy</b>			
Applied anatomy of the structures of the head and neck	4	4	4
Applied anatomy of the soft tissues of the head and neck	4	4	4
Intra-oral approaches to the facial skeleton	4	4	4
Extra-oral approaches to the facial skeleton	4	4	4
Demonstrate an understanding of the aesthetic units of the face as they relate to normal form	4	4	4
<b>Applied Anatomy and standard norms of specific areas of the head and neck</b>			
Applied anatomy of the nose including extra and intra-nasal access	4	4	4
Applied anatomy of the ears and classification of ear deformity	4	4	4
Applied anatomy of the eyelids	4	4	4
Applied anatomy and variations of the facial nerve	4	4	4
Supporting ligaments of the facial skin and relation to bone	4	4	4
Applied anatomy of the fascial planes of the face	4	4	4
Applied anatomy of the facial muscles	4	4	4

<b>Physiology and Pathology</b>			
Physiology of structures of the face including nose, eyes, eyelids, skin	4	4	4
Physiology of age-related changes to skin and facial norms	4	4	4
Principles of wound healing and scar formation	4	4	4
Physiology of different skin types	4	4	4
Pathology associated with facial asymmetries	4	4	4
Sun exposure-related changes to skin and facial norms	4	4	4
Effect of laser / light treatments on the skin	4	4	4
<b>Psychology</b>			
Assessment of patient's reasons for seeking treatment within context of psychology	4	4	4
Recognition of the need for formal psychological assessment	4	4	4
Recognition and counselling of patients requiring psychological input	4	4	4
<b>Non-Surgical Treatment Options</b>			
Pharmacology of neurotoxin agents	4	4	4
Indications, methods and limitations/complications of fat grafting to facial defects	2	3	4
Knowledge of different filler preparations available, their indications (licensed and non licensed) and management of complications of treatment	1	2	4

Types and indications for laser therapy and complications of treatment	1	2	4
Knowledge of different skin formations for skin stimulation and rejuvenation	2	2	4
Formulations, applications and management of complications of chemical peeling agents	1	2	4
Indications for skin/scar revision and potential complications	2	4	4
Indications, limitations and complications of minimal access approach to facial ptosis/palsy	1	2	4
Non-surgical management of ear deformity	1	2	4
<b>Clinical Skills</b>			
Assessment, diagnosis and treatment planning			
Assessment and diagnosis of patterns of facial appearance including age related to changes	2	4	4
Assessment and diagnosis of facial mis-proportion	4	4	4
Assessment of occlusion, dental aesthetics and restorative need	4	4	4
Assessment and diagnosis of facial asymmetry	4	4	4
Principles of management of facial asymmetry including the role of orthognathic surgery and camouflage procedures	3	4	4
Assessment and diagnosis of deformities of the nose	3	4	4
Clinical record keeping including photography	3	4	4
Role of CT and virtual imaging in diagnosis and treatment planning	3	4	4

Assess and produce a management plan for non-surgical treatment	2	3	4
Role of facial implants for the management of facial asymmetry and restoration of facial form	3	3	4
Role of virtual planning and use of custom designed implants for restoration of facial form	3	3	4
Assessment and diagnosis of the facial norms in gender reassignment surgery	1	3	4
Recognition & management of complications of surgery to restore facial/nasal form and function	1	3	4
<b>Consent</b>			
Moral and medico-legal competence	4	4	4
<b>Critical conditions</b>			
Life-threatening haemorrhage (sphenopalatine artery ligation, nasal packing)	4	4	4
Sight-threatening trauma (post-operative)	4	4	4
<b>Operative Management (Index procedures = *)</b>			
Local anaesthesia and use of topical agents	4	4	4
Correction of nasal deformity including bone, cartilage and soft tissue structures	2	3	4
Septal surgery to restore normal form and function	2	3	4
Secondary rhinoplasty techniques with indications for same	1	2	4

Harvest cartilage graft from nasal septum, ear and costochondral junction	2	3	4
Harvest temporal fascia	2	4	4
Harvest calvarial vault bone	2	3	4
Correction of ear deformity including otoplasty	2	3	4
Direct correction of brow ptosis	1	2	4
Endoscopic correction of brow ptosis	3	4	4
Upper Blepharoplasty	1	2	4
Lower blepharoplasty	1	2	4
Lateral canthopexy	1	2	4
Facelift for facial ptosis/palsy	1	2	4
Neck lift/platysmaplasty for correction of ptosis of the submental region	1	2	4
Lipectomy for correction of facial form	1	2	4
Fat grafting	1	2	4
Insertion of implants to correct facial form	1	2	4
Cheiloplasty/augmentation/lip reconstruction	1	2	4
Genioplasty	1	2	4
Re-contouring of forehead for correction facial norm/feminisation surgery	3	4	4
Re-contouring of mandible for correction of facial norm/feminisation surgery	1	2	4
Hairline reshaping for correction of facial norm/feminisation surgery	1	2	4

	1	2	4
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<b>Cleft lip and Palate Module</b> <b>The assessment and management of a patients and their family presenting with cleft lip and palate</b>	Competence Level		
	P2	P3	SI
<b>Applied Knowledge</b>			
<b>Anatomy</b>			
Applied anatomy of the hard tissues of the head and neck	4	4	4
Applied anatomy of the soft tissues of the head and neck	4	4	4
Intra and extra oral approaches to the facial skeleton	4	4	4
Open and closed approaches to the nose	4	4	4
Anatomy and embryology of cleft lip and palate anomaly	4	4	4
Anatomy of ear and temporal bone	4	4	4
Protocols for repair of cleft lip and palate	4	4	4
Historical perspective of cleft lip and palate repair	3	3	4
Dental development	4	4	4
<b>Pathology</b>			
Pathological anatomy, embryology and basic genetics of facial clefting and associated anomalies.	4	4	4

Pathology of speech of cleft lip and palate	3	3	3
Pathological anatomy of the repaired cleft palate	3	3	3
Pathological physiology of after cleft repair	3	3	3
<b>Physiology</b>			
Physiology of Speech	3	3	3
Physiology of hearing	3	3	3
Physiology of breathing	3	3	3
Physiology of feeding and swallowing	3	4	4
Physiology of velopharyngeal dysfunction	3	4	4
<b>Genetics</b>			
Genetic conditions associated with clefting and non cleft speech problems (including Stickler's, 22q11 deletion, and other common syndromes)	3	3	4
<b>Diagnostics</b>			
Principles, indications and interpretation of imaging modalities	4	4	4
Audiogram and tympanometry study, understanding the principles of brain stem evoked response audiometry	2	3	3
Diagnosis of genetic conditions associated with cleft	2	2	2

Principles, indications of nasendoscopy and videofluoscopy for speech problems	2	2	3
Principles, indications for orthodontic and restorative management	2	2	3
Recognition of facial and jaw deformity resulting from cleft lip and palate	2	4	4
<b>Classification of cleft lip and palate</b>			
Classification of cleft lip	4	4	4
Classification of cleft palate	4	4	4
Classification of facial clefts	4	4	4
Cleft lip and palate repair protocols (including historic and international variations)	1	2	4
Techniques for cleft lip & nose repair	1	2	4
National guidelines for the diagnosis, treatment and follow up of cleft patients	1	2	4
<b>Pain</b>			
Pain and pain relief in the cleft and paediatric patient	3	4	4
<b>Roles and contributions of members of the multidisciplinary team</b>			
Surgeons, dentists, nursing, speech therapy, anaesthetists, psychologists etc.	2	3	4
<b>Psychology</b>			

Psychological effects and management of the cleft patient within an MDT environment	2	3	3
Lifelong psychological effects of cleft lip and palate	2	3	3

<b>Biomechanics</b>			
Biomechanics of musculoskeletal tissues	4	4	4
Biomechanics of skeletal fixation and distraction osteogenesis	4	4	4
Properties of biomaterials including plates, autografts, allografts, sutures, implant	4	4	4
<b>Complications of operative management</b>			
Factors contributing to and prediction of potential complications and risks	3	4	4
Management strategies for potential complications	3	4	4
<b>Critical Conditions – basic science, pathology, complications</b>			
Acute airway obstruction	4	4	4
Life-threatening haemorrhage	4	4	4
<b>Clinical Skills</b>			
<b>Assessment, diagnosis and treatment planning</b>			
Assess and diagnosis patient's and relatives concerns	2	3	3

Assess and diagnose lip and nose disability	2	3	3
Assess and diagnose the primary and secondary dentition	4	4	4
Assess and diagnose the need for alveolar bone graft in palatal fistula	2	3	4
Determine optimum timing of treatment/surgery/involvement of members of the MDT	2	3	3
Nasendoscopy	1	2	3
Videofluoroscopy	1	1	1
Management of the airway	3	4	4
Investigation of speech problems	1	1	1
<b>Consent</b>			
Moral and medico-legal competence	4	4	4
<b>Perioperative management</b>			
Pre and post-operative patient/child undergoing cleft surgery including assessment for anaesthetic risk factors, postoperative fluid management, antibiotic prescribing	1	2	3
Manage naso-pharyngeal airway in the peri- and post- operative environment, and post-operatively,	1	2	3
<b>Operative Management (Index procedures = * )</b>			

Repair of incomplete cleft of the lip	1	2	4
Repair of complete cleft lip utilising currently recognised standard techniques	1	2	4
Repair of cleft palate	1	2	4
Re-repair of cleft palate	1	1	4
Furlow palatoplasty	1	1	4
Buccal flaps for surgery to improve speech	1	1	4
Orticochea pharyngoplasty	1	1	4
Pharyngeal flap	1	2	4
Alveolar bone graft	2	3	3
Revision of cleft lip	1	1	4
Cleft rhinoplasty	1	2	4
Orthognathic Surgery in cleft patients	2	3	3

<b>Craniofacial Module</b> The assessment and management of a patient presenting with craniofacial deformity.	Competence Level		
	P2	P3	SI
<b>Applied Knowledge</b>			
<b>Craniofacial Principles</b>			
Principles of the CF MDT process, team members and national referral pathways	2	3	4
Speech and language assessments of CF conditions + national Pathways	2	3	3
Psychology involvement and assessments of CF conditions + national Pathways	2	3	3
<b>Applied anatomy</b>			
Applied anatomy of the hard tissues of the skull, head and neck	4	4	4
Applied anatomy of the soft tissues of the skull, brain, head and neck	4	4	4
Coronal approaches to the skull	4	4	4
Transfacial approaches to the facial skeleton	3	4	4
Applied embryology to facial / skull skeleton relating to CF conditions	3	4	4
<b>Pathology</b>			
Principles of wound healing	4	4	4
Principles of bone healing	4	4	4

Principles of nerve healing	4	4	4
Metabolic and immunological response to trauma	4	4	4
Pathology / genetics of craniofacial microsomia + branchial arch disorders + congenital deformity	2	4	4
Pathology of facial clefting / encephaloceles / dermoid cysts	2	4	4
Pathology of paediatric facial and skull (hard and soft tissue) tumours	2	4	4
Principles and genetics of neurofibromatosis / facial lipomatosis	2	4	4
Pathology of Chiari malformation	2	3	4
<b>Physiology</b>			
Physiology of sight	3	3	3
Physiology of the sinus physiology / drainage	3	3	3
Physiology of the naso-lacrimal system	3	3	3
Physiology of CSF flow	2	3	3
Physiology of tissue expansion	2	3	3
<b>Diagnostics</b>			
Principles, indications and interpretation of imaging modalities	4	4	4
Principles, indications and interpretation of electrophysiological investigations	2	3	3
Principles and indications of sleep studies	3	4	4

Principles and indications of swallow assessments	2	3	3
<b>Classification / Treatment Principles and Protocols of craniofacial conditions</b>			
Classification / associated features / treatment protocols of syndromic craniosynostosis + pathway for different stages of life	2	4	4
Classification / treatment of non-syndromic craniosynostosis	2	4	4
Classification / treatment of benign deformational plagiocephaly + torticollis	2	4	4
Classification / treatment of facial clefting	2	4	4
Classification / associated features / Treatment of branchial arch conditions / HFM / TCS / mandibular deficiencies	2	4	4
Classification / pathology / treatment of vascular malformations	2	4	4
Classification / treatment and reconstruction of cranial nerve deficiencies / defects	3	4	4
Classification / treatment protocols of facial overgrowth conditions	3	4	4
Classification / treatment of orbital malposition conditions	2	3	4
<b>Pain</b>			
Pain and pain relief in the paediatric and adult craniofacial patient	3	4	4

<b>Biomechanics</b>			
Biomechanics of musculoskeletal tissues	4	4	4
Biomechanics of resorbable / non-resorbable fracture + bone fixation	4	4	4
Properties of biomaterials including plates, autografts, allografts, sutures	4	4	4
<b>Complications and risks of conservative and operative management</b>			
Factors contributing to and prediction of potential complications and risks	2	4	4
Management strategies for potential complications	2	3	4
<b>Critical Conditions – basic science, pathology, complications</b>			
Acute airway obstruction in the craniofacial patient	4	4	4
Retro-bulbar haemorrhage	4	4	4
Life-threatening haemorrhage	4	4	4
Intra-cranial haemorrhage – pre-, intra- and post-operative	3	4	4
<b>Post- traumatic deformity</b>			
Craniofacial (skull and upper face acquired deformity)	3	4	4

<b>Clinical Skills</b>			
Assessment, diagnosis and treatment planning			
Management of the airway in paediatric and craniofacial patients	3	4	4
Cephalometric diagnosis and planning of craniofacial patients	2	3	3
Patient specific planning / virtual treatment planning	3	4	4
<b>Emergency management</b>			
Paediatric emergency life support / resuscitation	3	4	4
Paediatric airway management	3	4	4
Paediatric fluid / electrolytes and blood resuscitation / management	3	3	4
<b>Consent</b>			
Moral and medico-legal competence	4	4	4
<b>Operative Management</b>			
Infiltration and nerve blocks for local anaesthesia	4	4	4
Soft tissue wound repair	4	4	4
Coronal Flap	2	4	4
Tarsorrhaphy techniques – temporary + permanent	3	4	4

Neurovascular tissue repair	3	4	4
Facial cleft / coloboma repair	1	2	4
Fronto-orbital advancement and remodelling	1	2	4
Strip craniectomy + micro-barrel staving	1	2	4
Total vault remodelling	1	1	4
Vault distraction (anterior / posterior)	1	1	4
Le Fort 2 / 3 Osteotomy	2	2	4
Monobloc / Fronto-facial Advancement	1	1	4
Orbital box osteotomy	1	1	4
Frontal bipartition	1	1	4
Encephalocele repair	1	1	4
Transcranial dermoid excision	1	1	4
Le fort 1 access to base of skull	3	4	4
Mandibular paediatric distraction osteogenesis	1	2	3
Syndromic rhinoplasty	1	1	1
Costo-chondral rib harvest	2	4	4
Autologous ramus-condyle unit / costochondral rib reconstruction	1	3	4
Autologous calvarial grafting	2	4	4
Autologous fat grafting	2	4	4

Tissue expansion	2	3	4
Cranioplasty - alloplastic	3	3	4
Facial alloplastic implants / augmentation	2	3	4

<b>Dentoalveolar Module</b> <b>The assessment and management of a patient presenting with <u>conditions of the teeth and supporting structures</u></b>	Competence Level		
	P 2	P 3	S I
<b>Applied Knowledge</b>			
<b>Anatomy</b>			
Applied anatomy of the hard and dental tissues of the head and neck	4	4	4
Applied anatomy of the soft tissues of the head and neck including potential infection spaces	4	4	4
Intra-oral approaches to the facial skeleton and soft tissues	4	4	4
Extra-oral approaches to the facial skeleton	4	4	4
<b>Pathology</b>			
Congenital and developmental defects of the dentition	3	4	4
Congenital and developmental bone diseases affecting the maxilla and mandible	3	4	4
Odontogenic pathology of the maxilla and mandible	4	4	4
Non-odontogenic pathology within the maxilla and mandible	4	4	4
Mechanism of infection (dental and non-dental aetiology)	4	4	4
Metabolic and immunological response to infection	3	4	4

<b>Physiology</b>			
Physiology of growth	3	3	4
Physiology of bone	3	3	4
Physiology of soft tissue, dental and bone healing	3	3	4
<b>Diagnostics</b>			
Principles and indications and interpretation of imaging modalities	4	4	4
<b>Classification</b>			
Classification of nerve injuries	4	4	4
Classification of dento-alveolar injuries	4	4	4
Classification of third molar position including radiological	4	4	4
Classification of occlusal relationships	4	4	4
<b>Clinical pharmacology</b>			
Analgesic agents	4	4	4
Local anaesthetic agents	4	4	4
<b>Psychology</b>			
Psychological effects and management of a patient with congenital or acquired conditions affecting the teeth and supporting structures	2	3	4

<b>Biomechanics</b>			
Properties of biomaterials including plates, autografts, allografts, sutures and osseointegration.	3	4	4
Properties of Local anaesthetics	4	4	4
<b>Complications and risks of conservative and operative management</b>			
Factors contributing to and prediction of potential complications and risks	3	4	4
Management strategies for potential complications	3	4	4
Awareness and appropriate use of national guidelines	3	4	4
<b>Critical Conditions – basic science, pathology, complications</b>			
Acute airway obstruction	4	4	4
Sepsis and septic shock	4	4	4
Displacement of teeth	4	4	4
<b>Multidisciplinary Working</b>			
Appreciation of restorative dentistry as it relates to the teeth and supporting structures	2	2	3
Appreciation of orthodontics as it relates to the teeth and supporting structures	2	2	3
Appreciation of special care dentistry as it relates to the teeth and supporting structure	2	2	3
<b>Clinical Skills</b>			
<b>Assessment, diagnosis and treatment planning</b>			
Neurovascular injury	2	3	4
Dento-alveolar injury	3	4	4

Management of the airway	3	4	4
Combined orthodontic management of the dentition	2	3	4
Combined Restorative/periodontal management of dentition	2	3	4
Third Molar assessment	4	4	4
<b>Consent</b>			
Moral and medico-legal competence	4	4	4
<b>Operative Management (Index procedures = * )</b>			
Infiltration and nerve blocks for local anaesthesia	4	4	4
Simple extraction of teeth	4	4	4
Surgical removal of retained teeth/roots	4	4	4
Surgical removal of ectopic/impacted teeth	3	4	4
Surgical removal of impacted wisdom teeth*	3	4	4
Coronectomy of third molars	3	4	4
Immediate management of oral antral communications	3	4	4
Management of an oral antral fistula	3	4	4
Caldwell Luc antrostomy	3	4	4
Management of an oral cutaneous fistula	3	4	4
Reduction and splinting of dento-alveolar fractures	3	4	4
Harvesting of bone grafts from mandible.	3	4	4
Harvesting of bone grafts from non-jaw sites	3	4	4
Pre-prosthetic preparation and prosthetic placement of implants	2	3	4

Sinus lift crestal approach	1	2	2
Sinus lift lateral approach	1	2	2
Peri-radicular surgery of teeth	2	3	4
Marsupialisation of jaw cysts	3	4	4
Enucleation of jaw cysts	3	4	4
Enucleation of odontogenic and non-odontogenic pathology of the jaws	2	4	4

### Critical Conditions – Oral and Maxillofacial Surgery

OMFS 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 via the MCR.

The critical conditions are of significant importance for patient safety and to demonstrate a safe breadth of practice. To ensure that trainees have the necessary skills in the critical conditions below, by certification (the end of phase 3) there should be documented evidence in the portfolio of performance at the level of a day-one consultant by means of the CBD or CEX as appropriate (to level 4: *Appropriate for certification*. See CBD/CEX forms for the full list of levels). There is no requirement for a certain number of CBDs and CEXs), however.

- 1) Life-threatening airway compromise
- 2) Sepsis of the head and neck
- 3) Sight-threatening trauma
- 4) Haemorrhage arising from the face, mouth, jaws and neck
- 5) Malignancy of the head and neck

## Appendix 4a: Index Procedures

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OMFS 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 via the MCR. 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.

By certification (the end of phase 3) There should be documented evidence that an indicative two or more operations in each group have been assessed and recorded with a PBA at level 3a/b and one operation in each group at level 4a/b.

- Level 3 a: Procedure performed with minimal guidance or intervention (needed occasional help)  
b: Procedure performed competently without guidance or intervention but lacked fluency
- Level 4 a: Procedure performed fluently without guidance or intervention  
b: As 4a and was able to anticipate, avoid and/or deal with common problems/complications

Index procedures OMFS:

- Surgical removal of impacted and buried teeth
- Drainage of tissue space infection
- Surgical access to airway (tracheostomy/cricothyroidotomy)
- Repair of facial lacerations
- Reduction and fixation of fractures of the mandible (including open reduction of condyle)
- Reduction and fixation of fractures of the midface including nose
- Repair and grafting of fractures of the orbital floor
- Excision & reconstruction of facial skin defects
- TMJ arthrocentesis
- Bone graft
- Ramus osteotomy of the mandible
- Le Fort 1 maxillary osteotomy
- Removal of a parotid lump
- Neck dissection
- Raising and in-setting of free flap
- Oral resection of malignant tumour (Level 3)
- Microvascular anastomosis (Level 3)

## Appendix 4b: Indicative numbers

### Indicative operative numbers for trainees in Oral and Maxillofacial Surgery

Indicative numbers are to be used as a guide and are taken as one piece of evidence alongside WBAs and trainers' reports.

It is important for trainees and trainers to consider the whole breadth of the curriculum and not only the trainees' area of special interest. In consideration for support for an application for certification, the SAC must satisfy itself that the trainee has been trained in the whole curriculum. WBAs, trainers' reports and the logbook evidence this. The indicative numbers are a guide and not an absolute requirement in this process.

The penultimate year figures are a guide only and previous experience and future planned rotations must be taken into consideration.

### Section 1 – Performed

Performed means that the trainee has completed the procedure with supervision (supervisor scrubbed or unscrubbed), or independently. In common with other surgical specialties, for a procedure to be attributed to a trainee, they should have completed 75% or more of that procedure. Where there is a variance from this, for example mandibular ramus osteotomies where a trainee can record performed if they complete one side (but not two procedures if they complete both sides) it is noted in the table. Detailed advice about the use of the logbook in OMFS is regularly distributed to trainees by the logbook lead for the specialty and can be requested from the SAC in OMFS. If the trainee's contribution was less than the required involvement, the trainee should record the procedure as 'assisted'. This percentage participation is somewhat arbitrary, and so we rely on the supervisor who validates the procedure record within the logbook to judge this and validate the logbook record in the context of the level of supervision recorded. Advice on how to validate records is available from the eLogbook website.

### At Certification

Oral Surgery	Year 1	Year 2	Year 3	Year 4	Year 5	Total
<b>Performed</b>						
Wisdom teeth				80		100
Other extractions				75		100
Cyst enucleation				15		20
Exposure of teeth				10		15
Extra oral I and D abscess				25		30
Caldwell Luc antrostomy				2		5

Salivary gland	Year 1	Year 2	Year 3	Year 4	Year 5	Total
<b>Performed</b>						
Submandibular				3		5
ECD parotid tumour				8		10
Partial parotidectomy				3		5

Trauma	Year 1	Year 2	Year 3	Year 4	Year 5	Total
<b>Performed</b>						
# mandible				60		70
# maxilla (I – III)				4		5
# NOE, frontal				3		5
# zygoma				32		40
# nose				8		10
Open condyle				8		10
Orbital floor / wall				10		15
Coronal flaps				4		6
Facial lacerations				30		30

Cutaneous	Year 1	Year 2	Year 3	Year 4	Year 5	Total
<b>Performed</b>						
Biopsy or excision				50		50
Primary closure				30		30
Skin graft (FT, SSG)				20		20
Local flap closure				35		40

Airway	Year 1	Year 2	Year 3	Year 4	Year 5	Total
<b>Performed</b>						
Tracheostomy				15		20

Orthognathic	Year 1	Year 2	Year 3	Year 4	Year 5	Total
<b>Performed</b>						
Mandibular ramus >75% one side incl re-positioning and fixation				30		40
Maxilla				20		30

>75% one side incl re- positioning and fixation						
Segmental osteotomy jaw				1		2
Genioplasty				4		5

Oncology	Year 1	Year 2	Year 3	Year 4	Year 5	Total
<b>Performed</b>						
Oro-facial resection				3		10
Mandibulectomy				2		5
Maxillectomy				2		5
Neck dissection				25		35

Reconstruction	Year 1	Year 2	Year 3	Year 4	Year 5	Total
<b>Performed</b>						
Non vascularised bone or cartilage				2		5
Local skin/muscle flap				3		5
Micro (artery)				2		10
Micro (vein)				2		10
Raise free flap				2		10
Raise pedicled flap				1		2

TM Joint	Year 1	Year 2	Year 3	Year 4	Year 5	Total
<b>Performed</b>						
Arthrocentesis				8		10

## Section 2 - where experience of, rather than competence in, is required

Whilst trainees are encouraged to perform procedures in this section, it is recognised by the SAC that opportunities to observe or undertake these as part of formal courses is of value. Experience can also be gained from exposure to clinical work in the private healthcare sector that meets the JCST requirements ([JCST Principles for Training in the Private Sector Nov2018](#)). The indicative numbers include where trainees observe and assist these procedures, as well as performing them.

### At Certification

Salivary gland	Year 1	Year 2	Year 3	Year 4	Year 5	Total
<b>Observed / Assisted / Performed</b>						
Endoscopic mmt salivary gland				1		4

Cleft	Year 1	Year 2	Year 3	Year 4	Year 5	Total
<b>Observed / Assisted / Performed</b>						
Lip surgery				3		5
Palate pharynx surgery				3		5
Alveolar bone graft				3		5

Aesthetic	Year 1	Year 2	Year 3	Year 4	Year 5	Total
<b>Observed / Assisted / Performed</b>						
Blepharoplasty				3		4
Otoplasty				2		3
Rhinoplasty				2		5
Facelift				1		2
Neurotoxin				3		4
Filler/fat transfer				2		4

Craniofacial	Year 1	Year 2	Year 3	Year 4	Year 5	Total
<b>Observed / Assisted / Performed</b>						
Fronto-orbital advancement Le Fort II / III / Monobloc Posterior distraction				1		2
Cranioplasty				1		1

TM Joint	Year 1	Year 2	Year 3	Year 4	Year 5	Total
<b>Observed / Assisted / Performed</b>						
Replacement				1		2
Arthroscopy				2		3
Open procedure				2		3

Orthognathic	Year 1	Year 2	Year 3	Year 4	Year 5	Total
<b>Observed / Assisted / Performed</b>						
Zygoma / orbital				2		2
Distraction				1		2

Implants / Preprosthetic	Year 1	Year 2	Year 3	Year 4	Year 5	Total
<b>Observed / Assisted / Performed</b>						
Preprosthetic surgery				3		5
Osseo-integrated implant placement				3		5
2 <sup>nd</sup> stage or revision surgery				3		5
Sinus lift crestal approach				2		2
Sinus lift lateral approach				2		2

## 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 OMFS there is only one mandated course.

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 trauma to the head, face and neck	<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 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 on 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 WBA 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 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. 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; NHS England, 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 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.

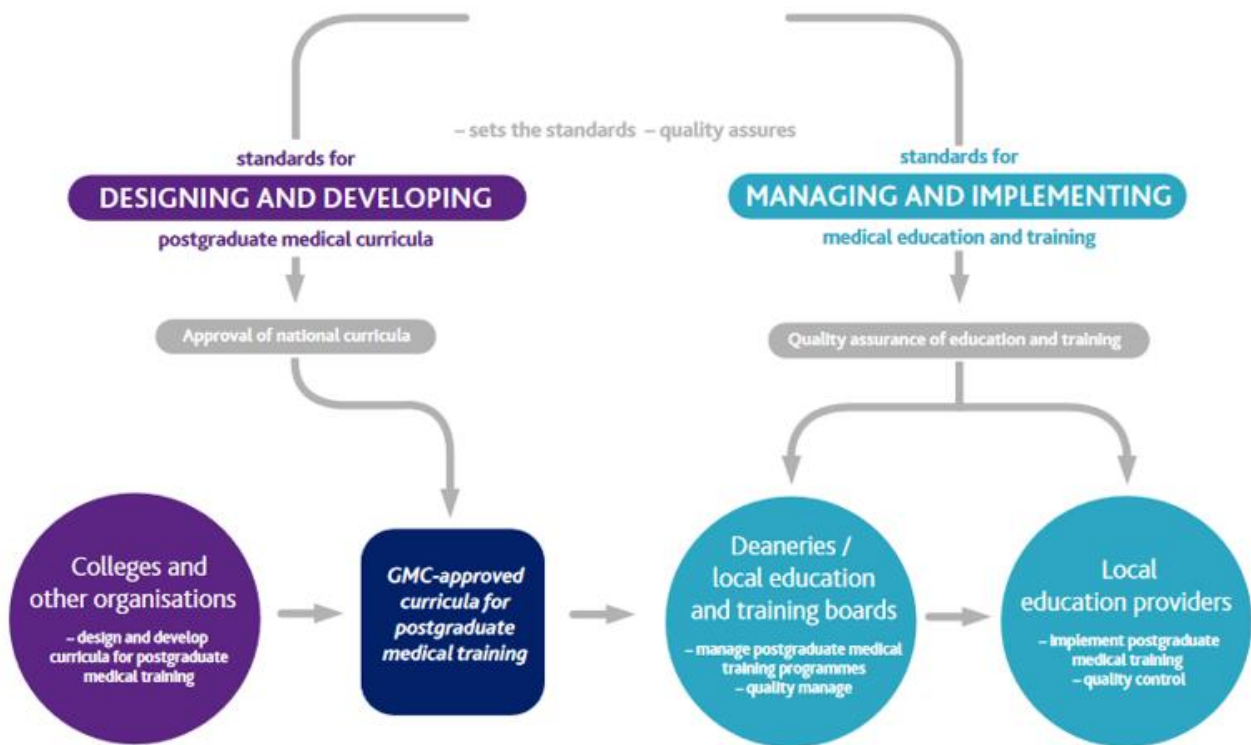


Figure 8: The quality assurance structure of the curriculum (adapted from Excellence by Design, GMC, 2017)

## 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)		*	*				*	*				