JCST
Joint Committee on Surgical Training

JCST Fellowships

Head & Neck Surgical Oncology Curriculum

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Contents

1 Introduction

This JCST Fellowship will provide high quality, high prestige and quality assured advanced training in Head & Neck Surgical Oncology. This has been recognised by the Specialty Advisory Committees SAC(s), the British Association of Head & Neck Oncologists (BAHNO), the British Association of Oral & Maxillofacial Surgeons (BAOMS), and the British Association of Plastic Reconstructive and Aesthetic Surgeons (BAPRAS), and Lead Dean(s) for Oral & Maxillofacial Surgery/Otolaryngology/Plastic Surgery as being a service that is required within the NHS and is not trained to unsupervised level by certification. It builds on the skills achieved by certification to enable the Fellow to contribute unsupervised as a consultant member of the multidisciplinary team in Head & Neck Surgical Oncology. The Fellowship incorporates:

a) a national selection process to select Fellows for training

b) this curriculum which defines the training to be delivered

c) training units which have been assessed as being able to deliver this training

d) a list of training Quality Indicators which describe the pattern of the training to be delivered

e) a quality review process managed by the JCST with input from the statutory education bodies and the specialty associations

2 Purpose of the fellowship

The JCST Post-Certification Interface Fellowship in Head & Neck Surgical Oncology (H&N) is open to those who have achieved specialist registration in Oral and Maxillofacial Surgery, Otolaryngology, and Plastic Surgery.

The H&N TIG Fellowship is shaped to provide training in Head and Neck Surgical Oncology to a level *above and beyond* that provided within the parent specialty CCT training. By opening up access to cross-specialty working, it aims ultimately to generate expert ability and knowledge, suitable for provision of care at the level of Multidisciplinary Team (MDT) Consultant Surgeon (Core Member) status.

The core substance of H&N Training is consolidated in 9 **Key Topics** which form the spine of H&N cancer surgical management principles in modern clinical practice as provided by MDTs UK-wide.

Exposure to specialist areas is available by choosing 3 **Advanced Topics** from a specified range covering the full remit of current & developing H&N surgical practice.

3 Programme of learning

3.1 What has to be learnt during the fellowship

Fellows following this curriculum will already have achieved certification from the GMC in Oral & Maxillofacial Surgery/Otolaryngology/Plastic Surgery. The curriculum builds on this to teach specific aspects of the delivery of the Generic Professional Capabilities (GPCs) and Capabilities in Practice (CiPs) required for practice at consultant level in Head & Neck Surgical Oncology. The areas for learning are specified as **Key Topics** and **Advanced Topics** in the wider remit of Head & Neck Surgical Oncology and are detailed in the syllabus.

The concept of interface training in H&N Oncological Surgery arose out of a desire to provide surgical practice in areas beyond certification where surgical specialties overlap. The aim is to provide fellows with the benefits of multidisciplinary team (MDT) working and specialisation in niche areas of practice within one recognised training unit in order to provide the best quality of care for patients. Fellows following this curriculum will already have achieved certification in one of the three parent specialties and this fellowship will, therefore, build on certification, to teach specific aspects of the current UK framework of cancer care, centred as it is on the MDT ethos, pathways and work patterns.

The syllabus

The areas for learning are specified as key topics and advanced topics in the wider remit of H&N Surgical Oncology and are detailed in the syllabus.

Key Topics

Fellows will enter the fellowship fully capable of practice in their parent specialty but will not be equivalent to each other in all the technical skills required for expert practice in H&N Oncology. Some procedures will never have been performed and cannot be taught to expert level within the 12 months of the fellowship. Satisfactory completion of the key topics will provide Fellows with the knowledge, skills and behaviours required to become core members of a H&N Oncological MDT and provide surgical care in that role.

Key Topic 1: *Management Principles, Decision Making, and MDT working in Head and Neck Oncology* - The aim in training is to cover all the common ground relevant to core Clinician function in the MDT setting and safe modern and capable management of Head & Neck Cancer patients in a holistic way, using fully the wider team, its contributors and expertise.

Key Topic 2: *Airway Management in Adults* / **Key Topic 4**: *Management of Regional (Neck) Lymph Nodes* – safe H&N surgery implies capable and appropriate management of the airway as it is threatened by disease or treatment. This, along with correct evidence-led treatment for regional (neck) nodal metastatic disease forms the fundamental principles for surgical management of H&N cancer (H&NCa).

Key Topic 3: *Surgical Skills* / **Key Topic 5**: *Wound Care* - Principles of good surgical care feature in the parent specialty training spectrum, but there are additional special nuances and risks which add a need for special knowledge and technical expertise in the H&N area.

Key Topic 6: *Swallowing, Speech, Nutrition, Rehabilitation* - the concept of returning a patient to as near as possible normal appearance, function and psychological health despite serious effects of treatment should be a major goal of every H&N team and facilitated by surgical technique and developments, and a thorough understanding of prosthetic, reconstructive and physical therapy options.

Key Topic 7: *Understanding Non-Surgical Treatment* - the previous H&N cancer TIG Fellowship syllabus coverage omitted the requirement for proven understanding of *non-surgical* oncology treatment – its principles, methods and effects, along with best choices for a patient in a given situation. This is fundamental to any MDT discussion of care plans and grasp of this is included in this new version. New agents and principles in chemotherapy, immunotherapy and disease modification arrive regularly, requiring adoption of a new term – Systemic Anti-Cancer Therapies (SACTs) which appears here.

Key Topic 8: *Palliative principles / End of Life* / **Key Topic 9**: *Communicating with the Cancer Patient* - finally, the human side of cancer care requires the very best of the communications skills of clinicians active in the field, and a realistic and honest approach when, with the best intentions, the outcome of cancer care will not be longer term survival for that patient. Providing clear understandable information, agreeing difficult decisions and offering good palliative care should be integral to a surgeon's contribution to management of H&N Cancer.

Advanced Topics

The options offered in the advanced topics permit Fellows to gravitate towards main areas or niche activities in the H&N Oncological remit, and concentrate their individual development in these fields.

Assessment

Fellows will be assessed on the Generic Professional Capabilities (GPCs) and Capabilities in Practice (CiPs) applicable for practice at consultant level in H&N Surgical Oncology.

Fellows will be assessed against the level required by the key topics. Demonstration of competence at this level will prime Fellows for succession to those areas of more specialised activity e.g., thyroid disease, facial nerve and reanimation, skull base surgery, sentinel node techniques, laser and robotic surgery, needed for full UK-wide provision of H&N Oncological care.

If Fellows have a preferred area of specialism or wish to be exposed to experience previously unavailable to him/her, these would be dependent on their previous experience at certification and the limits of what is feasible in a 12-month Fellowship. Fellows will need to discuss access to these areas of learning with their Assigned Educational Supervisor (AES), taking into account the local expertise, facilities and availability of the essential training material.

The aim of the Fellowship is to provide benefits of MDT working and specialisation in niche areas of practice. The outcome of the Fellowship is an expectation of *proficiency*; a thorough grasp and ability to the level of core members of a H&N Oncological MDT rather than expert function.

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

Training is designed to produce a person capable of safely and effectively performing the role of a first day consultant surgeon. The role of a Consultant Surgeon can be thought of as a sum of all the various tasks which need to be performed through a working week. These tasks are the high-level outcomes of the curriculum and grouping these together describe the role of a Consultant Surgeon. To perform a high-level clinical task as a Consultant Surgeon requires fellows to be able to integrate areas of learning from all parts of the syllabus, including knowledge, clinical skills, professional skills and technical skills. In addition, a surgeon will need to have acquired the generic skills, behaviours and values shared by all doctors in order to perform this task safely and well. A capability is a set of skills that can be developed through training from novice to expert and therefore these high-level clinical outcomes are known as Capabilities in Practice (CiPs). They are common across all surgical specialties and are delivered within the context of the Generic Professional Capabilities and the fellowship syllabus.

There are five CiPs:

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

The generic knowledge, skills, behaviours and values shared by all doctors are described in the Generic Professional Capabilities framework (GPCs). 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 nine domains of the GPC framework are:

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, CiPs and GPCs are the constituent parts of the role of a Consultant Surgeon. 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. Doctors who have gained entry to the Specialist Register will be able to demonstrate that they are capable of unsupervised practice in all CiPs and that they demonstrate all the Generic Professional Capabilities. For example, managing an unselected emergency take (CiP 2) requires 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.

Fellows will already have achieved the professional capabilities to the level required for consultant practice. This curriculum requires them to demonstrate the GPCs within the clinical context of Head & Neck Surgical Oncology .

Items from the syllabus are combined with items taken from the Generic Professional Capabilities 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 (CiPs). When CiPs are taken together, along with the Generic Professional Capabilities, 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 Multiple Consultant Report (MCR) examines the trainee from the perspective of the outcome (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 Surgeon but more detail is needed to help fellows develop that capability through training via detailed feedback and focused development goals.

We can break CiPs down into smaller tasks. Each of these smaller tasks is a CiP descriptor. If a fellow 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 fellow to get closer towards the outcome of training. By describing component parts of a CiP, descriptors also aid decisions on assessment of the level of supervision required by a fellow 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 fellows identify where to focus their efforts to become competent and safe independent practitioners (more detail about assessment and feedback is given in the Programme of Assessment section of the curriculum).

Each CiP is judged against a scale that describes the level of supervision required to perform the CiP to the standard of successful completion of the fellowship. The level of supervision changes in line with the fellow'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:

Fellowship Level I: Able to observe only

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

- **a.** Supervisor present throughout
- **b.** Supervisor present for part

Fellowship Level III: Able and trusted to act with indirect supervision

Fellowship Level IV: Able and trusted to act at the level expected of a day one consultant in the clinical area of the fellowship

Fellowship Level V: Able and trusted to act at a level beyond that expected of a consultant within the clinical area of the fellowship

3.4 Critical progression points and end point of fellowship

There are no critical progression points during the fellowship.

The end point of the Fellowship will be reached when Fellowship Level IV or V has been achieved in all the CiPs and when all the GPCs are demonstrated at the level of a consultant in a multidisciplinary team handling patients with a diagnosis in the remit of Head & Neck Surgical Oncology.

The GPCs will be assessed as being suitable for consultant practice in Head & Neck Surgical Oncology or requiring development to reach that level.

An optional narrative outcome for the fellowship will also be available describing the Fellowship Levels achieved and any GPCs requiring development, all within the context of consultant practice within Head & Neck Surgical Oncology.

3.5 Breadth of experience required during the fellowship

Fellows will practice at consultant level in Oral & Maxillofacial Surgery/Otolaryngology/Plastic Surgery during the fellowship while gaining further supervised experience in Head & Neck Surgical Oncology as defined in the syllabus, plus any Critical Conditions and Index Procedures:

3.5.1 The syllabus (See Appendix 2)

The syllabus provides a description of the knowledge, clinical skills and technical skills that are required.

3.5.2 Index Procedures (See Appendix 3)

A list of Index Procedures has been identified. These are common but important operations central to practice in Head & Neck Surgical Oncology, 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 required. Learning in the Index Procedures is indicative of learning in the broad range of technical procedures in the syllabus and they are therefore of significant importance for patient safety and demonstration of a safe breadth of practice. Each of these Index Procedures is assessed individually by means of the Procedure Based Assessment (PBA) which provides formative feedback to the fellow and feeds into the summative assessments of the AES and end of fellowship assessment.

3.5.3 Fellowship Completion Requirements

To support the demonstration of a sufficient breadth of experience and achievement of competence in Head & Neck Surgical Oncology, Fellowship Completion Requirements, shown in section 5.2, summarise the experience fellows need to achieve by the end of the Fellowship. These may include indicative numbers of cases, as fellows would not normally be expected to have achieved sufficient experience to be able to manage the range of pathology they will encounter unless these numbers are 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.

4 Teaching and learning

4.1 How the fellowship curriculum is delivered

The curriculum is used to help design training locally to ensure all fellows 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 fellow's own tailored learning and development plan. In keeping with formal pre-certification training, fellowship training should comply with the GMC standards presented in *Promoting excellence: standards for medical education and training* (2017). Units which train specialty trainees must already meet these standards:

Theme 1: Learning environment and culture

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

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

Theme 2: Educational governance and leadership

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

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

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

Theme 3: Supporting learners

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

Theme 4: Supporting educators

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

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

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.

4.2 Head & Neck Fellowship Training Structure and Intentions

1. "**Key Topic**" – Knowledge and skill development towards ***expert*** level by immersion in suitable clinical activity within recognized H&N Training Units - and thorough exposure to the 3 parent specialties in essential areas of Head & Neck Oncological Surgery crucial for Consultant H&N MDT service provision.
2. Exposure to, advance in knowledge and skills gain in **Advanced Topics** to the level of ***proficiency*** by the end of the Fellowship.
3. Elected **Advanced Topics** will be agreed by the educational supervisor (**AES**) & Trainee at the start of the fellowship, falling within any of the parent specialty boundaries, with free range in all. The choice will be documented and assessment on these areas will follow in parallel with the Key Topics progress assessments. The intention is to exploit the local strengths and expertise in mainstream specialist *and* niche areas of H&NCa surgical care.
4. Syllabus content, Curriculum design and Timetable design will facilitate steady progression in the **Key Topics** essential to Head & Neck practice *and* allow individuals a choice of advanced topics. **AES** should match timetabled clinical exposure to the declared learning requirements of each trainee and local Training strengths and capacity. **Key topic** completion should take precedence over **Advanced** areas where necessary in timetabling.
5. On completion of the Fellowship the individual will satisfy the TIG exit descriptors and thus be equipped and prepared to work at Consultant level in a Head & Neck Multidisciplinary environment or Team, as a Core Clinician. The individual should be able to provide care covered by the **Key Topics** framework, and in the chosen specialist or **Advanced Topic** areas covered during the TIG Fellowship.

The *Shape of Training* review in 2013 recognised the importance of developing a Generic Professional Capabilities framework. The GMC-specified 9 domains, relevant to a good clinician will apply throughout ST / TIG Fellowship training.

As for any doctor, a Fellow will continue to develop their professional and leadership skills by following the generic **Professional Behaviour and Leadership Skills** (PLS) syllabus as detailed in the ISCP curriculum.

Adherence to Appraisal, Continuing Professional Development and appropriate local mandatory Training requirements will be expected, to be recorded conventionally and confirmed through **AES** supervision and reports during the Fellowship.

Compliance with the standard requirements for completion of specialty training (and eligibility for recommendation for GMC grant of a CCT) in the parent specialty will be expected to continue uninterrupted during the period of the H&N Fellowship, in line with the Gold Guide and relevant parent SAC requirements.

4.3 Teaching

Trainers in more specialised areas of surgery will by definition have experience of specialty training of trainees to CCT level in their own parent specialties (ENT, Plastic Surgery, OMFS and MDT related non-surgical specialties) and should be familiar with new curricula, principles of teaching and handling theoretical knowledge transfer, demonstration by example, guidance regarding suitable reading and evidence based decision making , and formative assessment of a trainee, feedback and recording of progress using the ISCP platform.

The traditional forums for knowledge transfer and development of clinical skills would include seminar / tutorial, informal discussion (case-based or otherwise), clinic interactions with cancer patients, ward and ward business rounds, minor and inpatient surgical theatre and Intensive Care, emergency scenarios where appropriate, and the Multidisciplinary Team discussion environment.

AES would involve and encourage consultant colleagues in provision of suitable learning environments and appropriate direct teaching / mentoring roles in the year of the fellowship.

Trainers should satisfy the GMC requirements for trainer status.

4.4 Learning opportunities

Fellows will be familiar with the educational approaches used in the Oral & Maxillofacial Surgery/Otolaryngology/Plastic Surgery curriculum:

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

Fellows and their trainers will use these methods within the context of a mentor and mentee relationship, rather than that of a trainer and trainee. It is expected that bi-directional learning will be a feature of this relationship.

4.4.2 Self-directed learning

The curriculum is fellow-led and self-directed learning is encouraged. Fellows are expected to take a proactive approach to learning and development and towards working as members of a multi-professional team. Fellows are expected to undertake personal study in addition to attending formal and informal teaching. This includes using study materials and publications and reflective practice. Fellows 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.

The AES should guide fellows in choice of suitable additional courses, modules, external events and opportunist experience suitable for the learning objectives of the fellow. Additional study funding is available to each fellow commencing an interface training placement.

Self-directed learning is informed and guided by the specifics and areas for exploration as per the mandatory **Key Topics** and chosen **Advanced Topics**. Fellows should be facilitated to attend / exploit training opportunities in parallel specialties freely and with full access. The value of fellow to fellow exchange of knowledge and skills should be recognized of value, particularly when a fellow ‘visits’ another specialty in its activities where home specialty trainees pursuing certification may offer valuable insight and guidance.

Reflective practice is an important part of self-directed learning and of continuing professional development. It is an educational exercise that enables fellows 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[1]. Self-directed learning permits development in all five CiPs, especially when there is effective reflection on all aspects of learning at the centre of self-directed learning.

The first priority should be to meet the requirements of the **Key Topics**, as required in the outcome exit descriptors.

4.4.3 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. For JCST Post-Certification Fellowships, suitable training units will be selected and trainees appointed following a process to be defined in an accompanying document.

While in the workplace, fellows 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 role of the fellow in these contexts determines the nature of the learning experience. Learning begins with observation of a trainer (not necessarily a doctor) and progresses to assisting a trainer; the trainer assisting/supervising the fellows and then the fellow managing a case independently but with access to their supervisor. The level of supervision changes in line with the fellow'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.

At the beginning of the fellowship, CiPs in the context of the clinical area of the fellowship are best taught by a specifically selected trainer directly watching and supervising while the fellow 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. CiP descriptors and 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 fellow 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 fellow. Fellows are required to keep a surgical logbook to support their reflection and the assessment of their operative skills.

4.4.4 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, GPCs and the syllabus and may include a mixture of formal talks including attendance at national conferences relevant to the speciality, small group discussion, case review and morbidity and mortality meetings, literature review and skills teaching. Some knowledge and capabilities are best gained in the formal setting of a taught course.

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[1] *Improving feedback and reflection to improve learning. A practical guide for trainees and trainers* http://www.aomrc.org.uk/reports-guidance/improving-feedback-reflection-improve-learning-practical-guide-trainees-trainers/

4.4.5 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; and
- 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, for example for the management of trauma a valid certificate may be achieved through the *Advanced Trauma Life Support* (*ATLS*®), Advanced Paediatric Life Support (APLS) or equivalent.

4.5 Supervision

Supervision of the fellow by their supervising mentor/trainer is fundamental in the delivery of safe and effective training. It takes advantage of the experience, knowledge and skills of expert clinicians and ensures a mutually beneficial interaction between two experienced clinicians with the aim being for the supervising mentor to impart their knowledge, wisdom and skill to the fellow. The ultimate responsibility for the quality of patient care and the quality of training lies with the supervising mentor/trainer.

Training units are expected to use GMC recognised trainers as supervising mentors/trainers and fellows are expected to interact and work with all consultants on the training unit. Training units must be approved by the JCST

Fellows must have a named AES and one or more CS, responsible for overseeing their development. Depending on local arrangements these roles may be combined into a single role of AES. The defined roles and responsibilities of each training role are described below and further information is given in the Gold Guide[2].

Fellows will be expected to work at consultant level in the generality of practice within Oral & Maxillofacial Surgery/Otolaryngology/Plastic Surgery but will be supervised to a degree appropriate to their skill level in Head & Neck Surgical Oncology. As the fellowship progresses, fellows should have the opportunity for increased autonomy, consistent with safe and effective care for the patient. Achievement of Fellowship Level IV in the CiPs indicates that a fellow 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 a multidisciplinary team. However, within the context of a training system fellows are always under the educational and clinical governance structures of the Health Service.

4.6 Roles and responsibilities for supervision

The key roles involved in fellowship teaching and learning are the AES, CS, assessor and fellow. Their responsibilities are described in Appendix 4.

4.7 Supporting feedback and reflection

Effective feedback is known to enhance learning and combining self-reflection[3] with feedback promotes deeper learning. Fellows are encouraged to seek feedback on all they do, either informally, through verbal feedback at the end of a learning event, or formally through workplace based assessment. The MCR and use of the CiP descriptors provide regular opportunities for detailed and specific feedback. Self-assessment of CiPs provides a regular opportunity for focused and structured reflection and development of self-directed goals for learning as well as developing these goals through dialogue with trainers. All the assessments in the curriculum are designed to include a feedback element in multiple ways:

- *Learning Agreement:* appraisal meetings with the AES at the beginning, middle and at the end of the fellowship
- *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 fellow's self-assessment and team views
- *MCR (mid-point formative):* meeting with the AES or CS to discuss the fellow'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 fellow's self-assessment and CSs' views on CiPs

[2] https://www.copmed.org.uk/gold-guide/

[3] *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/

Constructive feedback is expected to include three elements:

1) a reflection on performance;
2) identification of the fellow's achievements, challenges and aspirations; and
3) an action plan.

5 Programme of assessment

5.1 Delivery of the programme of assessment

Fellows and their trainers will be familiar with the programme of assessment described in the pre-certification curriculum.

The fellow and their AES will create a Learning Agreement at the start of the fellowship. This will describe how the fellow will aim to achieve the curriculum requirements and will indicate the workplace based assessments that will be used. As a minimum these should include the Multiple Consultant Report on the CiPs and GPCs (mid-point and end of fellowship), CBDs on the critical conditions and PBAs on the index procedures.

The fellow and their AES should ensure that sufficient reflection and feedback arising from these assessments is recorded in ISCP to demonstrate the full extent of the fellow's progression through the fellowship.

The end of fellowship MCR and AES report will feed into the end of fellowship assessment. This will be conducted by a national panel likely to comprise representation from the SAC, the Surgical Specialty Association (SSA) and the relevant statutory education body. If possible, a lay member should also be included. The panel will review the fellow's portfolio with particular reference to:

- The Learning Agreement
- AES report
- The MCR
- CBDs in the critical conditions
- PBAs in the index procedures
- Operative logbook
- Record of reflection

If the panel is satisfied that the curriculum requirements have been met then that outcome will be recorded and the fellow informed. Alternatively, a narrative record of achievement will be written by the panel to indicate the skills gained by the fellow. This will be agreed with the training unit before being released to the fellow.

There will be no formal examinations.

5.2 Completion of fellowship training in Head & Neck Surgical Oncology

The following requirements are applied to all fellows completing this curriculum

a) be fully registered with the GMC and have a licence to practise (UK fellows) or be registered with the Medical Council in Ireland (Ireland fellows);

b) have achieved Fellowship Level IV or V in all the relevant Capabilities in Practice (CiPs)

c) have achieved the competencies described in the nine domains of the Generic Professional Capabilities Framework; and

d) have been recognised by the end of fellowship assessment panel as having met the curriculum requirements. These include the following:

5.2.2 Fellowship completion requirements for Head & Neck Surgical Oncology

Completion of the Key Topics required for all H&N Fellows: Satisfactory completion of the selected Advanced Topics within the syllabus shown.

Area	Requirement	Evidence
H&N Syllabus Key Topics	Documented satisfactory completion	MCR / AES reports
H&N Syllabus Advanced Topics	Documented coverage and satisfactory performance in the selected Advanced Topics agreed	MCR / AES reports and supporting evidence (CBD / CEX / PBAs / DOPs course content etc.)
Educational progress – confirmation that all requirements of the curriculum have been achieved	Completion of fellowship recommended via supportive report	AES report
CiPs and GPCs	All relevant CiPs and GPCs assessed at the appropriate level	MCR
Operative competence - evidence of competence in indicative operative procedures (assessed at level IV/demonstrating consultant-level competence)	Procedure based assessments must be presented as detailed in Appendix 3	PBAs
Operative experience - consolidated logbook evidence of the breadth of operative experience as defined in the curriculum	Minimum indicative numbers of index procedures are listed in Appendix 3	eLogbook
Reflection	Fellows should reflect on the development of their practice during the fellowship, and how they would like to develop their practice over the next 2-3 years[4]	MSF Self-Assessment Self-Assessment on GPCs and CiPs (midpoint and end of placement) Journal entries Reflective section in all WBAs and Other Evidence sections Other type of reflective statement

[4] *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/

Outcome – Fellowship Exit	A H&N TIG Fellow will demonstrate by *portfolio, surgical record, reflective material, Multi-Trainer & Supervisors (AES) report(s)*, evidence of their *deeper understanding, increased capability and advanced competence* consistent with *expert practice* within the **Key Topics** field of Head & Neck Surgery, and *proficiency* in chosen specific **Advanced Topics**.
Assessment for Exit Descriptors	Specific Evidence should show their expanding knowledge, clinical / technical skills, general professional capabilities and maturing clinical thinking *Format – Portfolio* CV Logbook Reflective material ISCP evidence Multiple Consultant Reports / AES report Certification of specific required skills (e.g. Advanced Communication Skills course)

General themes and attributes for development during the Fellowship					
Professional values & conduct, self-discipline, probity, accountability	Ability to deal with uncertainty, complexity, flexibility in face of developing situations	Meticulousness in recording evidence relating to clinical activity, appropriate written reflection, critical analysis, for better patient safety and care	Quality Improvement in clinical care, evidence base, value of research and audit	Understanding context, quality of life, holistic values, human interaction, dignity and equality	Developing ability to discuss, lead, achieve consensus in a team environment (MDT)

5.3 Assessment framework components

5.3.1 The sequence of assessment

Training and assessment take place throughout the fellowship, which will usually be of twelve months' duration. Assessments are carried out by relevant qualified members of the fellow's multi-professional team whose roles and responsibilities are described in Appendix 4. The fellow's progress is monitored primarily by the fellow's AES through Learning Agreement meetings held between the fellow and the AES. Throughout the fellowship, fellows must undertake WBAs. The fellow's Clinical Supervisors must assess the fellow on the five CiPs and nine GPC domains using a Multiple Consultant Report (MCR). This must be done towards the mid-point of each fellowship in a formative way and at the end of the fellowship when the formative assessment will contribute to the AES's summative assessment at the final review meeting of the learning agreement. The fellowship culminates with the AES report of the fellow's progress for the end of fellowship assessment, which provides a summary of the competences gained during the fellowship.

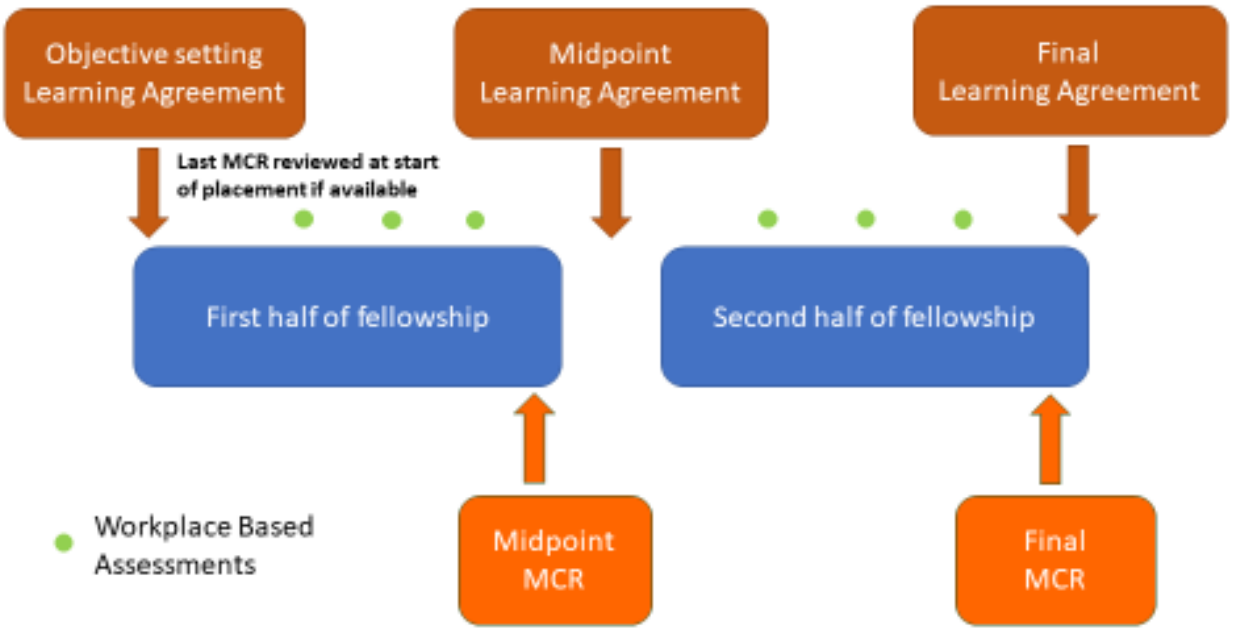

Figure 1: The sequence of assessment through a fellowship.

5.3.2 The Learning Agreement

The Learning Agreement is a formal process of goal setting and review meetings that underpins 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 fellows. There are three Learning Agreement meetings in each placement and these are recorded in the fellow's learning portfolio. Any significant concerns arising from the meetings should be fed back to the AES at each point in the Learning Agreement.

In Head & Neck Surgical Oncology fellowships, the fellow should agree with their AES the **Advanced Topics** they has elected to pursue, subject to availability and the facilities of the host unit, in addition to the set and required **Key Topics** forming the basis of the fellowship training requirements.

Objective-setting meeting

At the start of the fellowship the AES and fellow must meet to review the fellow's current competence and experience, agree learning objectives and identify the learning opportunities presented by the fellowship. The Learning Agreement is constructively aligned towards achievement of the high-level outcomes (the CiPs and GPCs) and, therefore, the CiPs are the primary reference point for planning how fellows will be assessed and whether they have attained the learning required. The Learning Agreement is also tailored to the fellow's current abilities and learning needs. The most recent summative MCR (if available) will be reviewed alongside the fellow's most recent self-assessment. Any specific targeted training objectives should also be considered and addressed though this meeting and form part of the Learning Agreement. The Learning Agreement is signed by both the fellow and the AES and recorded in the learning portfolio. AES and fellows should discuss at first meeting the objectives related to the **Advanced Topics** agreed for adoption, and an outline plan for tackling the essential **Key Topics** listed in the syllabus.

Mid-point review meeting

A meeting between AES and the fellow must take place at the midpoint 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 eLogbook and the formative midpoint MCR, including the fellow's self-assessment. This meeting ensures training opportunities appropriate to the fellow's own needs are being presented in the fellowship, 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 fellowship 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 fellow, and escalation to Training Interface Group Chair if no resolution. Similar actions apply if the if the scope and nature of opportunities should change in the remaining portion of the fellowship in response to areas for development identified through the MCR.

Final review meeting

Shortly before the end of the fellowship fellows should meet with their AES to review portfolio evidence, progress against **Key Topic** and **Advanced Topic** requirements and general performance including the MCR. The dialogue between the fellow and AES should cover the overall progress made in the fellowship, all positives and any barriers – and the AES's view of the fellowship outcome.

AES report

The AES must write an end of fellowship report which informs the end of fellowship assessment. The report includes details of any significant concerns and provides the AES's view about whether fellow's learning objectives have been achieved. 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 assessment 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 in the clinical area of the fellowship. The assessment, called the Multiple Consultant Report (MCR), must be carried out by the consultant CSs involved with a fellow, 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 fellow is progressing in each of the five CiPs. This global rating is expressed as a supervision level recommendation described in *Table 1*. 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, Clinical Supervisors must make an overall, holistic judgement of a fellow's performance on each CiP and GPCs. Levels IV and V, shaded in grey equate to the level required for successful completion of the fellowship and the level of practice expected of a day one consultant in the clinical area of the fellowship (level IV) or beyond (level V). If not at the level required for completion of the fellowship the MCR can identify areas for improvement by using the CiP or GPC descriptors or, if further detail is required, specific syllabus items or GPC descriptors through free text. The assessment of 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 fellow in person on a day-to-day basis. The CS group, led by a Lead CS, should meet at the

midpoint of a placement to conduct a formative MCR and at the end of a placement to conduct a summative MCR. Through the MCR, they agree which supervision level best describes the performance of a fellow at that time in each of the five CiP areas 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.

In making a supervision level recommendation, CSs should take into account their experience of working with the fellow and the degree of autonomy they were prepared to give the fellow during the fellowship. They should also take into account all the descriptors of the activities, knowledge, skills and GPCs 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 fellow requires a degree of supervision to carry out the activity then the CSs should indicate which of the descriptors of the activities, knowledge, skills and GPCs require further development (to a limit of five items per CiP, so as to allow targets set and feedback to be timely, relevant and achievable). Similarly, if a fellow excels in one or more areas, the relevant descriptors should be indicated.

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 fellow 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 fellow in person after each MCR and, therefore, includes a specific feedback meeting with the fellow using the highlighted descriptors within the MCR and/or free text comments.

The midpoint MCR feeds into the mid-point and final Learning Agreement meetings. At the mid-point it allows goals to be agreed for the second half of the fellowship, with an opportunity to specifically address areas where development is required. Towards the end of the fellowship the MCR feeds into the final review learning agreement, helping to inform the AES report (Figure 1). The MCR is an iterative process involving CSs, self-assessment by fellows, face to face meetings between fellows 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 AES and at subsequent MCRs.

The MCR, therefore, gives valuable insight into how well the fellow is performing, highlighting areas of excellence, areas of support required and concerns. It forms an important part of detailed, structured feedback to the fellow at the mid-point and before the end of the fellowship, 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 end of fellowship assessment. The end of fellowship assessment uses all presented evidence to make the definitive decision on the fellow’s achievements during the fellowship.

Table 1: MCR anchor statements and guide to recommendation of appropriate supervision level in each CiP.

		Trainer input at each supervision level			
MCR Rating Scale	**Anchor statements**	**Does the fellow perform part or all of the task?**	**Is guidance required?**	**Is it necessary for a trainer to be present for the task?**	**Is the fellow performing at a level beyond that expected of a day one consultant? [c]**
Level I:	Able to observe only: no execution	no	n/a	n/a	n/a
Level IIa:	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
Level IIb:	Able and trusted to act with direct supervision: The supervisor needs to guide all aspects of the activity. This guidance may partly be given from another setting but the supervisor will need to be physically present for part of the activity	yes	all aspects	will be necessary for part	n/a
Level III:	Able and trusted to act with indirect supervision: 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. The supervisor may be required to be physically present on occasions.	yes	some aspects	may be necessary for part	n/a
Level IV:	Able and trusted to act at the level of a day one consultant in the clinical area of the fellowship	yes	None [a,b]	None [a, b]	n/a
Level V:	Able and trusted to act at a level beyond that expected of a day one consultant in the clinical area of the fellowship	yes	None[a]	None [a]	yes

a. This equates to the level of practice expected of a day one consultant in the clinical area of the fellowship. It is recognised that advice from senior colleagues within a multi-disciplinary team 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 a multidisciplinary team. 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 (SL IV), i.e. be a level commensurate with that of a day 1 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.

5.3.4 Fellow self-assessment of CiPs

Fellows 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 GCP 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 fellowship. Wide discrepancy between self-assessment of supervision level and the recommendation by CSs in the MCR allows identification of over- or under-confidence and for support to given accordingly.

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 6) and will be used to underpin assessment in those areas of the syllabus central to the clinical area, i.e. the critical conditions and index procedures, as well as being available for other conditions and operations as determined by the fellow and supervisors. 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 fellows' reflections on practice in order to address learning needs.

WBA uses different trainers' direct observations of fellows to assess the actual performance of fellows 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 fellows in important areas of the syllabus throughout the fellowship. Fellows undertake each task according to their experience and ability level and the assessor must intervene if patient safety is at risk. It would be normal for fellows 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 fellows immediately after the observation. Each WBA includes the fellow's and assessor's individual comments, ratings of individual competencies (e.g. *Satisfactory*, *Needs Development* or *Outstanding*) and global rating. 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, WBAs also contribute to the AES report for the end of fellowship assessment.

WBAs are formative and may be used to assess and provide feedback on all clinical activity. Fellows 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 critical conditions and index procedures. 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 fellow's progress. All fellows are required to use WBAs to evidence that they have achieved the learning in the index procedures or critical conditions by the end of the fellowship. However, it is recognised that fellows 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 6) 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 for feedback to and assessment of the fellow.

Case-Based Discussion (CBD)

The CBD assesses the performance of a fellow 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 fellow 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 fellows compile, prioritise and apply knowledge. By using clinical cases that offer a challenge to fellows, rather than routine cases, fellows 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 critical conditions. Fellows are assessed against the standard for the completion of the fellowship.

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 fellow and patient interaction and an assessor is available. The CEX or CEX(C) is important for assessing critical conditions. Fellows are assessed against the standard for the completion of the fellowship.

Multi-Source Feedback (MSF)

The MSF assesses professional competence within a team working environment. It comprises a self-assessment and the assessments of the fellow's performance from a range 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 fellow'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 fellow to discuss the feedback on performance in the MSF. Fellows are assessed against the standard for the completion of the fellowship.

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 fellows 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 3). Fellows are assessed against the standard for completion of the fellowship.

Surgical Logbook

The logbook is tailored to each specialty and allows the fellow's competence as assessed by the PBA to be placed in context. It is not a formal assessment in its own right, but fellows 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 PBA and will be compared with the indicative numbers of index procedures defined in the curriculum (Appendix 3).

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 fellow's competence in completing an audit or quality improvement project. It can be based on documentation or a presentation of a project. Fellows are assessed against the standard for completion of the fellowship.

Observation of Teaching (OoT)

The OoT assesses the fellow's ability to provide formal teaching. It can be based on any instance of formalised teaching by the fellows which has been observed by the assessor. The standard is set for the fellowship.

The forms and guidance for each WBA method can be found on the ISCP website (see section 6).

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. Fellows 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 fellows are expected to have a good knowledge of the curriculum and should use it as a guide for their training programme. Each fellow 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 a fellow's conduct and practice as follows:

- Fellows 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
- AESs can complete fellow appraisal through the learning agreement, monitor fellow portfolios and provide end of placement AES Reports;
- CSs complete the MCR at the midpoint and endpoint of each placement;
- Assessors can record feedback and validate WBAs, including the MSF;
- Other people involved in training can access fellow 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, treatment (both operative and non-operative) and recognition of the degree of discussion required within, and support from, the multidisciplinary team. Fellows are expected to apply syllabus defined knowledge and skills in straightforward and unusual cases across the breadth of the clinical area of the Fellowship across all CiPs.

All CiPs relate to Good Medical Practice domains 1, 2, 3, and 4.

Shared Capability in Practice	1. Manages an out-patient clinic
Description 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.	
Example descriptors: • Assesses and prioritises GP and inter-departmental referrals and deals correctly with inappropriate referrals • 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 • Carries out syllabus-defined practical investigations or procedures within the out-patient setting • 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 • Takes co-morbidities into account • Requests appropriate investigations, does not investigate when not necessary, and interprets results of investigations in context • Selects patients with urgent conditions who should be admitted from clinic • Manages potentially difficult or challenging interpersonal situations, including breaking bad news and complaints • Completes all required documentation • Makes good use of time • Uses consultation to emphasise health promotion	

Shared Capability in Practice	1. Manages an out-patient clinic

Supervision level:

Fellowship Level I:	Able to observe only
Fellowship Level II:	Able and trusted to act with direct supervision: **a.** Supervisor present throughout **b.** Supervisor present for part
Fellowship Level III:	Able and trusted to act with indirect supervision
Fellowship Level IV:	Able and trusted to act at the level expected of a day one consultant in the clinical area of the fellowship
Fellowship Level V:	Able and trusted to act at a level beyond that expected of a consultant within the clinical area of the fellowship

Shared Capability in Practice	2. Manages the unselected emergency take

Description

Manages all patients with an emergency condition requiring management within the clinical area of the fellowship. Able to perform all the administrative and clinical tasks required of a consultant surgeon in order that all patients presenting as emergencies in the clinical area of the fellowship 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

Supervision level:

Fellowship Level I: Able to observe only

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

a. Supervisor present throughout

b. Supervisor present for part

Fellowship Level III: Able and trusted to act with indirect supervision

Fellowship Level IV: Able and trusted to act at the level expected of a day one consultant in the clinical area of the fellowship

Fellowship Level V: Able and trusted to act at a level beyond that expected of a consultant within the clinical area of the fellowship

Shared Capability in Practice	3. Manages ward rounds and the on-going care of in-patients

Description

Manages all hospital in-patients with conditions requiring management within the clinical area of the fellowship. 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 multidisciplinary 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 round 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

Shared Capability in Practice	3. Manages ward rounds and the on-going care of in-patients

Supervision level:

Fellowship Level I:	Able to observe only
Fellowship Level II:	Able and trusted to act with direct supervision: **a.** Supervisor present throughout **b.** Supervisor present for part
Fellowship Level III:	Able and trusted to act with indirect supervision
Fellowship Level IV:	Able and trusted to act at the level expected of a day one consultant in the clinical area of the fellowship
Fellowship Level V:	Able and trusted to act at a level beyond that expected of a consultant within the clinical area of the fellowship

Shared Capability in Practice	4. Manages an operating list

Description

Manages all patients with conditions requiring operative treatment within the clinical area of the fellowship. 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

Shared Capability in Practice	4. Manages an operating list

Supervision level:

Fellowship Level I:	Able to observe only
Fellowship Level II:	Able and trusted to act with direct supervision: **a.** Supervisor present throughout **b.** Supervisor present for part
Fellowship Level III:	Able and trusted to act with indirect supervision
Fellowship Level IV:	Able and trusted to act at the level expected of a day one consultant in the clinical area of the fellowship
Fellowship Level V:	Able and trusted to act at a level beyond that expected of a consultant within the clinical area of the fellowship

Shared Capability in Practice	5. Manages multi-disciplinary working

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 clinical area of the fellowship. 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 clinical area of the fellowship.

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

Supervision level:

Fellowship Level I: Able to observe only

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

a. Supervisor present throughout

b. Supervisor present for part

Fellowship Level III: Able and trusted to act with indirect supervision

Fellowship Level IV: Able and trusted to act at the level expected of a day one consultant in the clinical area of the fellowship

Fellowship Level V: Able and trusted to act at a level beyond that expected of a consultant within the clinical area of the fellowship

Appendix 2: Syllabus

The syllabus provides a description of the knowledge, clinical and technical skills required for the fellowship.

Standards for knowledge

Specific competency levels in knowledge have been removed except for the critical conditions where the topic for a 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. Competency levels for clinical and technical skills range from 1-4 as detailed below.

1. Has observed

Exit descriptor; at this level the fellow:

- 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 fellow:

- knows all the steps - and the reasons that lie behind the methodology;
- can carry out a straightforward procedure fluently from start to finish;
- knows and demonstrates when to call for assistance/advice from the supervisor (knows personal limitations).

3. Can do whole but may need assistance

Exit descriptor; at this level the fellow:

- 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 fellow: ● with regard to the common clinical situations in the clinical area, can deal with straightforward and difficult cases to a satisfactory level and without the requirement for external input; ● is at the level at which one would expect a UK consultant surgeon to function; ● is capable of supervising trainees.

The Key Topics and Advanced Topics listed are set against these standards for the relevant objectives for each Topic in the relevant specific areas of this document.

Trainees will be expected to encounter disease characterised by ICD codes shown below:

C00-C14	Malignant Neoplasms of lip, oral cavity , pharynx / naso / hypopharynx
C15	Malignant Neoplasms of digestive organs - oesophagus
C30-C33	Malignant Neoplasms of Nasal cavity, middle ear, paranasal sinuses, Larynx,Trachea
C41	Malignant Neoplasms of bone and / or cartilage
C43-C44	Malignant Melanoma, Merkel Cell Carcinoma and skin cancers
C47	Malignant Neoplasms of peripheral nerves
C49	Malignant Neoplasms of connective tissue
C69	Malignant Neoplasms of eye and adnexa

Key Topics

- Management Principles, Decision Making & Multidisciplinary Working
- Airway Management
- Surgical Skills
- Management of Regional (Neck) Nodes
- Wound Care
- Swallowing, Speech, Nutrition, Rehabilitation
- Understanding non-surgical treatment (Radio / Chemo / Immunotherapy)
- Palliative principles / End of life
- Communicating with the Cancer patient

Advanced Topics

- Tumours of the Lip, Oral Cavity
- Tumours of the Oro and Hypo Pharynx
- Tumours of the Nose and Paranasal Sinuses
- Tumours of the Larynx
- Tumours of the Skin of the Head and Neck
- Salivary Gland Disease
- Thyroid Disease
- Reconstruction in Head and Neck Oncology
- Management of the Facial Nerve / Reanimation Techniques
- Skull Base involvement by Tumours
- Sentinel Node Biopsy technique
- Trans Oral Robotic Surgery (TORS)
- Laser Surgical technique

In addition the fellow should learn about effective cross-specialty referral and collaboration specifically with teams dealing with:

- Lung
- Breast
- HaematoOncology / Lymphoma
- Sarcoma
- Melanoma / Skin
- Gynaecology / Urology
- GastroIntestinal
- Brain

malignant disease through the relevant MDT structures and inter-relationships, when the clinical picture overlaps with these areas.

Key Topics

Key Topic Exit Descriptor equates to Achievement of Level 4 in Knowledge, Clinical Skills and Technical abilities in all Key Topics

See Appendix 6 for assessment tools.

Key Topic 1: Management Principles, Decision Making, and MDT Working in Head and Neck Oncology	
Objective	1. To achieve competence in Clinical Staging, Treatment planning, MDT decision making in respect of Intent, Holistic care of H&N Ca patients, use of MDT guidelines, pathways, including assessment of fitness to undergo potential treatments. 2. To understand internationally recognized principles of evidence based H&N practice. 3. To recognize limitations of Surgery, Radiotherapy, Systemic Anti-Cancer Therapies (SACT) modalities in treating H&NCa patients. 4. To work with parallel “site specific” MDT groups in collaboration, exercising quality referral / communications.
Knowledge	• Knowledge of the nature, natural history, pattern of spread and characteristics of common H&N tumours • Knowledge of the critical data requirement for comprehensive evaluation, staging and treatment planning for a H&NCa patient • Knowledge of Quality Framework for Management of H&NCa in England and devolved nations • Grasp of the applicable clinical guidelines and agreed treatment pathways for common H&N tumours • Understanding of surgical options in general for H&N tumours • Understanding of principles and applicability of non-surgical treatments (See Key Topic) • Understanding of principles of pain management in the acute and chronic situation • Understanding of the place for palliative care in patients with H&NCa • Knowledge of MDT structure, membership, and respective roles • Audit and data collection (National and Local, Ca Registry) principles • Understanding of principles of research applied to Head and Neck Cancer • Qualitative & quantitative research methodology in H&NCa • Knowledge of the current important clinical trials in H&NCa • Survivorship, role of patient representative groups, support agencies

Key Topic 1: Management Principles, Decision Making, and MDT Working in Head and Neck Oncology	
Objective	1. To achieve competence in Clinical Staging, Treatment planning, MDT decision making in respect of Intent, Holistic care of H&N Ca patients, use of MDT guidelines, pathways, including assessment of fitness to undergo potential treatments. 2. To understand internationally recognized principles of evidence based H&N practice. 3. To recognize limitations of Surgery, Radiotherapy, Systemic Anti-Cancer Therapies (SACT) modalities in treating H&NCa patients. 4. To work with parallel “site specific” MDT groups in collaboration, exercising quality referral / communications.
Clinical skills	• Demonstrates full participation in and leadership of MDT discussions • Demonstrates ability to discuss surgical and non-surgical management options with patients and their families and record outcome of discussions • Effective and targeted post diagnosis preparation and management of H&NCa patients • Assesses Pt against WHO-PS and ACE-27 measures of fitness • Recognition and Management of acute / chronic complications of H&NCa treatment • Conducts at least one relevant audit • Involvement in relevant research / Achieves Good Clinical Practice certification • Psychological management including CBT techniques • Active involvement in service improvement project(s)
Technical skills	• Perform quality case presentations, comprehensive case summaries • Collate all relevant clinical, histological, imaging, medical and social data relevant to a patient MDT discussion • Document MDT outcomes - diagnosis, stage, intent, primary and adjuvant treatment decisions • Use telemedicine links effectively / present at parallel site specific MDT in disease overlap

Key Topic 2: Airway Management in Adults	
Objective	1. To understand the aetiology, presenting symptoms, clinical signs, assessment and management of adult patients presenting with upper airway disorder, including emergency. 2. To achieve and demonstrate safe clinical judgement and practical technical skill in the above.
Knowledge	• Demonstrate a detailed knowledge of the anatomy and physiology of the upper aerodigestive tract, both anatomical and as seen through cross sectional imaging • Understand the microbiology and pathology of disorders of the upper aerodigestive tract • Understand the principles of management of patients with airway threat / obstruction • Know the different methods of securing an airway safely (surgical and non-surgical) in an elective and emergency setting • Understand the indications and techniques for surgical debulking of upper airway malignancies • Know the different options for surgical and non-surgical management of upper airway obstruction including evidence for the different options. • Understand the stages and safeguards implicit in management and safe removal of airway adjuncts
Clinical skills	• Be able to elicit an appropriate clinical history and correctly interpret physical airway signs • Be aware of the role of appropriate investigations in the management of airway obstruction • Demonstrate the ability to work effectively with anaesthetists and those involved in critical care who manage the 'shared airway' • Exercise judgement and choice in additional measures required for safe maintenance of artificial airway(s) (Suction, Humidification, filters, cuff management) • Demonstrate expertise in the safe assessment of patients with potential airway threat • Demonstrate expertise in managing an emergency due to airway obstruction including leadership of teams managing such emergencies • Be able to rationalize and justify options and choices in airway adjunct choice and escalation / De-escalation / removal • Appreciation of tubeless anaesthesia / jet ventilation techniques

Key Topic 2: Airway Management in Adults	
Objective	1. To understand the aetiology, presenting symptoms, clinical signs, assessment and management of adult patients presenting with upper airway disorder, including emergency. 2. To achieve and demonstrate safe clinical judgement and practical technical skill in the above.
Technical skills	• Competent at performing the following diagnostic procedures; fibreoptic nasopharyngoscopy, fiberoptic or magnification examination of pharynx, larynx, oesophagus • Competent at performing endotracheal intubation • Proficient at performing a surgical tracheostomy in the elective and emergency setting both under general and local anaesthesia • Show practical proficiency in the management of airway adjuncts in theatre and ward environments including tube change & replacement, tube attachments and devices • Competent at straightforward debulking procedures • Able to perform percutaneous tracheostomy

Key Topic 3: Surgical Skills	
Objective	1. To achieve competence / become expert in the essential surgical skills needed for head and neck surgical oncology. 2. To explore a chosen advanced topic and develop related specialist surgical skill.
Knowledge	• Detailed anatomical knowledge of the Head, Neck, Shoulder Girdle and Thorax including functional consequences of anatomical disruption • Understanding of different techniques for excision of head and neck cancer and relevant access techniques / osteotomy variants • Understanding of techniques for nerve preservation during surgery • Understanding of the techniques and options for use of different wound closure materials and techniques including osteosynthesis • Understanding of surgical principles and techniques of local and distant flap closure (local, pedicled and free flaps) • Logic and Design of free flap tissue transfer • Applied anatomy and physiology of free flap surgery and microcirculation • Knowledge of the use of lasers in the head and neck including laser safety • Knowledge of the indications for robotic surgery in head and neck oncology • Use of the harmonic scalpel / specialized thermal surgery tools • Physiology of and indications for photodynamic therapy
Clinical skills	• Be able to lead a WHO Team Brief in respect of a major H&N surgical case. • Demonstrate joint working with surgical colleagues in planning and executing surgical procedures including access, resective and reconstructive phases of treatment • Show ability to plan and coordinate the various phases of surgical input involved in a major H&N surgical case including delegation / assignment of tasks • Have attained appropriate mandatory safety training in use of lasers, thermal surgical tools

Key Topic 3: Surgical Skills	
Objective	1. To achieve competence / become expert in the essential surgical skills needed for head and neck surgical oncology. 2. To explore a chosen advanced topic and develop related specialist surgical skill.
Technical skills	• Surgical excision with adequate margins • Access procedures, including access to structures of the neck • Reconstructive inset of tissue including bony components and osteosynthesis with plates, screws etc. • Repair of damaged / weakened vascular structures • Management of significant haemorrhage • Surgery in Irradiated / previously treated tissues • Split skin and full thickness skin grafts • Raising / insetting Axial & random pattern local flaps • Raising of Pectoralis Major flap • Raising of a range of free flaps, e.g. radial forearm, ALT, Rectus abdominis, DCIA, scapula etc. • Microvascular anastomosis • Neural anastomosis • Safe use of thermal surgical tools, haemostatic agents, drains, stents and adhesives

Key Topic 4: Management of Regional (Neck) Lymph Nodes

Objective

1. To be conversant with known patterns of metastatic spread for main presenting Cancer types and sites of the H&N.
2. To understand how to assess, investigate, diagnose and stage neck involvement in H&N Ca.
3. To recognize and manage threat from neck deposits of malignant disease.
4. To understand limiting factors affecting neck surgery decisions

Knowledge	• Anatomy of the Head & Neck with specific reference to lymphatic drainage, vascular supply and venous drainage, including relations of key structures affected by malignant nodal deposits • Internationally recognized neck levels, boundaries and designations. • Pattern of metastatic spread in the head and neck for given sites affected by squamous carcinoma, salivary gland carcinoma, thyroid cancer, skin cancer • The concept, investigation and management of carcinoma of occult primary site (CUPS) • Imaging techniques including USS, MR, PET, Sentinel Node Techniques • Cytopathological investigations including Ultrasound guided biopsy, Fine needle and Core needle options, • TNM staging of metastatic neck disease • Evidence based options for treatment of metastatic neck disease including non-surgical management • Principles, Classification, Indications and design of neck dissection surgical procedures • Understanding of the management of complications recognized in neck surgery • Co morbidities limiting the extent / duration of surgery
Clinical skills	• Assessment of patient for neck dissection, including clinical examination, assessment of risk and appropriate preoperative patient counselling • Use and interpretation of investigations • Multi-disciplinary teamwork • Peri and postoperative management • Management of recurrent neck disease • Avoidance vs Management of complications of neck dissection

Key Topic 4: Management of Regional (Neck) Lymph Nodes	
Objective	1. To be conversant with known patterns of metastatic spread for main presenting Cancer types and sites of the H&N. 2. To understand how to assess, investigate, diagnose and stage neck involvement in H&N Ca. 3. To recognize and manage threat from neck deposits of malignant disease. 4. To understand limiting factors affecting neck surgery decisions
Technical skills	• Lymph node biopsy – open, needle, guided • Selective neck dissection – specification of levels & approaches • Comprehensive neck dissection (including modifications) • Extended Comprehensive neck dissection (e.g. with parotidectomy / skin or bony resection) • Neck surgery technique in the previously irradiated neck • Presentation and orientation of neck specimens to histopathology • Flap repair of neck defect(s) • Carotid artery ligation

Key Topic 5: Wound Care	
Objective	1. To achieve competence in managing patients with a wide variety of simple and complex wounds found in Head & Neck treatment. 2. To recognize and manage threat from infection, vascular insufficiency and necrosis including failing free transfer tissues. 3. To demonstrate capability in choice of wound dressing, adjuncts and how to deal with adverse tissue healing.
Knowledge	• Applied anatomy, physiology and pathology of wound healing • To have a full understanding of the principles of surgical closure of wounds • To have a full awareness of risks of infection and mechanisms for reducing the risk of infection including relevant prophylaxis • To understand the indications for wound closure by primary and secondary intention and use of tissue transfer • Indications for specific dressing types • Full and split thickness skin graft principles including non-native skin substitutes • Tissue expansion techniques • Knowledge of types of tissue fillers and their indications • Management of complicated wounds including revision surgery • Camouflage techniques • Use of external, buried and intra oral prostheses • Types of and indications for implantation technology
Clinical skills	• Demonstrate the ability to manage the common wound complications of head and neck surgery including fistula management and chyle leakage • Non-surgical management of wounds including dressing choice • Competence in management of surgical wounds including appropriate patient counselling • Use of camouflage techniques • Management of external, buried and intraoral implants, stents, drains, specialized dressings

Key Topic 5: Wound Care	
Objective	1. To achieve competence in managing patients with a wide variety of simple and complex wounds found in Head & Neck treatment. 2. To recognize and manage threat from infection, vascular insufficiency and necrosis including failing free transfer tissues. 3. To demonstrate capability in choice of wound dressing, adjuncts and how to deal with adverse tissue healing.
Technical skills	• Wound closure - primary and secondary intention • Skin graft harvest, preparation, application • Tissue expansion techniques and dermal fillers • Implant related techniques and maintenance • Vacuum dressing application

Key Topic 6: Swallowing, Speech, Nutrition, Rehabilitation

Objective

1. To understand the aetiology, presenting symptoms, clinical signs, assessment and management of patients with impaired speech / swallowing, nutrition and physical function.
2. To acquire acumen in assessing, planning and appropriate treatment to maximize rehabilitation in the above aspects of living.

Knowledge	• Know the anatomy of the upper aerodigestive tract • Physiology of swallowing • Know the anatomy of the larynx, tongue, palate and upper airway and the production of speech, including neuroanatomy • Know the various hypotheses and mechanisms relating to the aetiology of dysphagia • Understand the investigation and imaging of a patient with dysphagia • Understand the pathophysiology of aspiration, its complications and its management • Understand the causes of speech abnormality and their anatomical associations • Know investigations for speech and swallowing pathology • Know the treatment options for surgical voice restoration post laryngectomy • Understand Inspection and assessment of voice prosthesis, Change of tracheo oesophageal valve • Understand the principles and importance of nutrition relevant to head and neck cancer
Clinical skills	• Can elicit a targeted history and examination of a patient with speech and swallowing dysfunction, including flexible nasendoscopy • Work effectively with speech and language therapists in the assessment and management of patients with speech and swallowing disorders • Able to manage aspiration • Able to manage patients with non-oral enteral feeding including tube care • Use and interpretation of quantitative and qualitative investigations of speech and swallowing e.g. VHI, GRBAS, FEES • Indications and use of specific laryngeal procedures (Cricopharyngeal myotomy, use of Botox, Vocal cord medialization, Tracheo oesophageal puncture)
Technical skills	• Competence at inserting, securing, managing & changing nasogastric tubes under local & general anaesthesia; in ward setting • Competence at performing optically assisted examination of nose/ pharynx / larynx / oesophagus • Oesophageal dilatation • PEG insertion

Key Topic 7: Understanding Non-surgical Treatment (Radiotherapy, Systemic AntiCancer Therapy)	
Objective	1. To understand the biology and cellular effects of non-surgical treatments, their indications, practical use and limitations, effects and complications 2. To understand the indications, contraindications, precautions, planning, administration and after effects of radiation treatment(s) of H&NCa. 3. To understand the indications, contraindications, precautions, planning, administration and after effects of Systemic Anti-Cancer Treatments [SACTs] for H&NCa. 4. To be competent to anticipate, recognize, and manage significant post treatment effects of Non-surgical treatments of H&NCa
Knowledge	• Normal Cell cycle vs Cancer cell behaviour • Basic cellular principles of Radiation effects • Cellular biology of cytotoxic agents • Current theories of Immunological agents in treatment of Ca • Indications for Non-Surgical treatment choice in H&NCa • Limitations of Non-Surgical treatments in H&NCa • Precautions prior to treatment including dental, renal, hearing and other assessments • Common effects, their course and managements in non-complicated non-surgical treatment • Complications and adverse effects / outcomes resulting from non- surgical modalities including OsteoRadioNecrosis and Chemotherapy induced anaphyllaxis • Changed emphasis of treatment according to HPV status
Clinical skills	• Ability to explain to a patient the basic principles of Non-surgical treatments • Comprehensive clinical history noting factors relevant to non-surgical treatment • General ability to assess a dental status / risks • Recognising the influence of co-morbidity on non-surgical treatment • Anticipation, recognition and diagnosis of key expected and adverse treatment effects • Management of mucosal ulceration, skin effects, dry mouth, soft tissue effects • Hearing assessment & its appropriate use • Ability to recognize , diagnose , classify and manage Osteo RadioNecrosis

Key Topic 7: Understanding Non-surgical Treatment (Radiotherapy, Systemic AntiCancer Therapy)	
Objective	1. To understand the biology and cellular effects of non-surgical treatments, their indications, practical use and limitations, effects and complications 2. To understand the indications, contraindications, precautions, planning, administration and after effects of radiation treatment(s) of H&NCa. 3. To understand the indications, contraindications, precautions, planning, administration and after effects of Systemic Anti-Cancer Treatments [SACTs] for H&NCa. 4. To be competent to anticipate, recognize, and manage significant post treatment effects of Non-surgical treatments of H&NCa
Technical skills	• Examination of irradiated tissues • Detection of peripheral neuropathy • Clinical care / treatment of ulcerated epithelium • Clinical management of skin effects of non-surgical treatments • Manage exposed bone, & developing risks from dental, ulcerated tissue or other portals of infection

Key Topic 8: Palliative Principles / End of Life	
Objective	1. To understand the implications of “Palliative intent” in a H&NCa patient treatment plan 2. To understand the changed priorities in care plans / treatment options of a patient receiving palliative input 3. To demonstrate effective choice of analgesia / management of symptoms affecting Palliative care patients 4. To understand the pathway relevant to the end of a patient’s life including choice, use of available suitable resources and agencies
Knowledge	• Definitions of and scope of palliative care • The structure of Palliative services • Principles of pain management (WHO analgesic ladder) • Principles of key symptom management in H&NCa including patient choices • Workings of domiciliary / community / hospice based care • End of life pathways and principles - adjuvant treatments • Documentation of pt death including cancer registry and MDT mortality reporting • Understanding of National audit/ registry reporting of Ca related deaths
Clinical skills	• Ability to assess prognosis / attribute Palliative intent • Appropriate and timely referral to correct agencies for Palliation / end of life care • Management of acute terminal events – airway obstruction / massive haemorrhage • Good communication / update of involved agencies • Command of prescribing /appropriate drugs / clinical aids (pumps / drivers) in the palliative setting • Honest interaction with terminal H&NCa patient • Dealing with relatives, concerns, expectations, practicalities including delegation and CNS
Technical skills	• Evaluation of a terminal H&NCa patient and organisation of appropriate care • Delivery of Local blockade / nerve ablation for pain • Debulking / tumour reduction for symptom control (surgical , cryotherapy , laser) • Discussion / referral for local palliative radiotherapy for symptom control (bone metastases, growth restraint)

Key Topic 9: Communicating with the Cancer Patient

Objective

1. To practice effective, empathetic, clear communication with a H&NCa patient and /or relatives / carers
2. To furnish information, options and make available health care choices for effective management of H&N Ca patients in all circumstances

Knowledge	• Understanding principles of Advanced Communications skills • Understanding of Privacy, Dignity, Confidentiality principles in healthcare • Good communication within the cancer care team • Psychology of cancer care interactions • Principles of effective communication using translation • Safeguarding in the adult and child patient • Appropriateness of sharing information with patient, spouse, partner, relatives, wider family or friends including palliative care and DNAR concepts • Health promotion principles and key risk factors for H&NCa / addiction management • Use of patient information adjuncts / health promotion materials & media • Concepts of patient choice in communications • Adaptations for hearing, speech impaired patients
Clinical skills	• Ability to communicate clearly, assess need and requirement for information in a patient, relatives, carers • Correct strategies for safeguarding vulnerable H&N Ca patients • Simplification of medical terminology • Appropriate intervention for health promotion (smoking cessation / alcohol advice / risk factors) • Honest communication of results / expected developments , prognosis • Using non-verbal communication, contact, silence • Discussion regarding Do Not Attempt Resuscitation (DNAR) status and process
Technical skills	• Advanced Communication Skills certification • Effective letter writing including control of circulation • Use of telephonic / live interpreter services • Effective referral for Smoking / alcohol / mental health / social circumstances issues

Advanced Topics

Fellows to choose three Advanced Topics, discussed & agreed with their AES. Two Topics to be completed to Level 4

Advanced Topic 1: Tumours of the Lip & Oral Cavity	
Objective	1. To understand the aetiology, presenting symptoms, clinical signs, assessment and management of patients with oral cancer. 2. To understand the complex relationships of anatomy and physiology and effects of malignant disease or cancer treatment on function of the mouth, jaws and teeth. 3. To show competence in planning treatment and clinical skill in surgical procedures affecting the oral environment To demonstrate ability to anticipate, diagnose and manage complications and functional effects of treatment of cancer of the oral cavity
Knowledge	• Normal anatomy of lips, oral cavity, teeth, tongue, palate, salivary outflows & neurovascular relations. • Surgical anatomy of the oral cavity and contiguous structures • Oral, salivary, masticatory and bolus physiology including jaw movements in swallowing. • Differential diagnosis and management of unusual / potentially malignant lesions of the oral cavity (e.g. leukoplakic / erthyroleukoplakic patches) • Aetiology, natural history and management of benign tumours of the oral cavity jaws and teeth - including locally aggressive entities e.g. ameloblastoma • Aetiology, epidemiology, pathology & natural history of oral cavity cancer, effects on contiguous structures including patterns of metastatic spread • TNM Staging classification of oral malignancies • Options for resective surgery including bony invasion, effects of surgery including airway protection and loss of muscle attachments • Principles of reconstructive surgery of the oral cavity and jaws • Complications following surgery for oral cavity cancer • Importance of dental assessment &/or fitness in treatment planning • Non-surgical treatment options in the management of oral cancer including organ preservation strategies and management of complications arising • Effects of non-surgical treatments on the oral cavity and teeth especially Radiation effects • Pathophysiology, Definition, Investigation, Diagnosis and management options for osteoradionecrosis of the jaws

Advanced Topic 1: Tumours of the Lip & Oral Cavity

Objective

1. To understand the aetiology, presenting symptoms, clinical signs, assessment and management of patients with oral cancer.
2. To understand the complex relationships of anatomy and physiology and effects of malignant disease or cancer treatment on function of the mouth, jaws and teeth.
3. To show competence in planning treatment and clinical skill in surgical procedures affecting the oral environment To demonstrate ability to anticipate, diagnose and manage complications and functional effects of treatment of cancer of the oral cavity

Clinical skills

- Appropriate history / specific clinical examination including oral function and patients with communication difficulties
- Appropriate pre-treatment assessment of oral hygiene / dental health and appropriate pre-emptive management
- Preoperative assessment / management of co-morbid disease and limitations on extent of treatment
- Appropriate use of investigations including imaging, examination and biopsy to stage oral Cancer and evaluate extent of functional effect
- Ability to plan surgical access routes to tumour sites within the oral cavity & adjacent structures including soft and hard tissue options
- Decision making on tumour excision margins, for oncological safety and maximum function preservation
- Reconstructive options including local, regional, free and composite flaps, monitoring and post-operative care of flaps
- Complex surgical planning based on 3D imaging principles
- Use of Prosthetic, alloplastic or implanted materials in restoring function
- Management of complications including orocutaneous fistulae
- Late Rehabilitative options including dental Implants, prostheses and Patient Specific devices

Advanced Topic 1: Tumours of the Lip & Oral Cavity	
Objective	1. To understand the aetiology, presenting symptoms, clinical signs, assessment and management of patients with oral cancer. 2. To understand the complex relationships of anatomy and physiology and effects of malignant disease or cancer treatment on function of the mouth, jaws and teeth. 3. To show competence in planning treatment and clinical skill in surgical procedures affecting the oral environment To demonstrate ability to anticipate, diagnose and manage complications and functional effects of treatment of cancer of the oral cavity
Technical skills	• Simple Dental extractions • Skilled selection and safe use of drills, saws, power tools, accurate bony reduction, plate adaptation and fixation techniques. • Soft tissue only resection of tumour in floor of mouth, buccal, hard palate • Partial glossectomy and variants • Rim resection & Segmental resection of the jaw, lip & mandibular splits and mandibulotomy including osteosynthesis with plates • Palatal fenestration, partial maxillectomy, Obturator / pack techniques • Mid facial degloving / mid facial osteotomies including osteosynthesis • Reconstructive surgery; appropriate selection of free /myocutaneous/ osseous / local flaps • Imaging based 3-Dimensional surgical planning of composite reconstructions • Preparation / insertion / adjustment of oral, dental and other facial prostheses • Correct laser surgery safety and application protocols for different laser modalities

Advanced Topic 2a: Tumours of the Oro and Hypopharynx	
Objective	1. To understand the aetiology, presenting symptoms, clinical signs, assessment and management of patients with Oro- and Hypo-pharyngeal cancer. 2. To demonstrate proficiency in surgical management of tumours of the Oro- & Hypo-pharynx.
Knowledge	• Anatomy and embryology of the Pharynx • Physiology of swallowing • Pathological conditions affecting the Pharynx including non-squamous neoplastic conditions • Molecular biology of Pharyngeal cancer • Epidemiology and aetiology of Pharyngeal cancer including HPV and its implications for management and prognosis • Presentation of Pharyngeal cancer, patterns of spread • TNM staging of Pharyngeal / neck cancer • Treatment options for Pharyngeal cancer including Organ preservation strategies and side effects of therapy • Robotic surgery options in the Oro-Hypopharynx • Complications of surgery for the oropharynx and hypopharynx
Clinical skills	• Full history and examination including in patients with difficulties with communication • Preoperative assessment / management of co-morbid disease • Staging including use of appropriate special investigations • Flexible nasopharyngoscopy examination in clinic • Assessment of speech and swallowing • Videolaryngoscopy / FEES • Management of the postoperative patient • Management of complications including anastomotic leakage

Advanced Topic 2a: Tumours of the Oro and Hypopharynx	
Objective	1. To understand the aetiology, presenting symptoms, clinical signs, assessment and management of patients with Oro- and Hypo-pharyngeal cancer. 2. To demonstrate proficiency in surgical management of tumours of the Oro- & Hypo-pharynx.
Technical skills	• Panendoscopy including tonsillectomy / rigid and flexible oesophagoscopy • Transoral endoscopic laser resection of Pharyngeal tumours • Partial Pharyngeal resections and access surgery • Total Pharyngolaryngectomy • Pharyngeal reconstruction with local flaps, free vascularised flaps or gastric transposition • Placement of gastrostomy feeding tubes

Advanced Topic 2b: Tumours of Nose and Paranasal Sinuses

Objective

1. To understand the aetiology, presenting signs, symptoms and management of patients presenting with sinonasal cancer.
2. To demonstrate proficiency in the surgical management of tumours of the nose and paranasal sinuses.

Knowledge

- Anatomy and embryology of the nose and paranasal sinuses and related structures
- Cross sectional and radiological anatomy of nose, sinuses and surrounding structures
- Nasal physiology
- Microbiology of the nose and paranasal sinuses and principles of management of chronic rhinosinusitis
- Pathology of the nose and paranasal sinuses
- TNM Classification of cancers of nose and paranasal sinuses
- Treatment options for cancer of the nose and paranasal sinuses including non-surgical options
- Notifiable diseases of the nose and sinuses
- Management of complications of intervention - (CSF rhinorrhoea, aerocephaly, raised intracranial pressure and intracranial / intraorbital haemorrhage)
- Principles of maxillary, or orbito-facial prostheses including implant supported prostheses
- Principles of pre-emptive or interventional embolization

Clinical skills

- Appropriate history and specific examination including with patients with communication difficulties
- Rigid & flexible variants of nasal / sinus endoscopy
- Ophthalmic examination
- Oral cavity examination
- Preoperative assessment including neurological and mental assessment
- Staging including use of appropriate special investigations CT / MRI / MRA / angiography
- Lumbar puncture +/- fluoroscein instillation
- Management of the postoperative patient including haemostasis
- Osseo integrated abutment placement for nasal prostheses

Advanced Topic 2b: Tumours of Nose and Paranasal Sinuses

Objective

1. To understand the aetiology, presenting signs, symptoms and management of patients presenting with sinonasal cancer.
2. To demonstrate proficiency in the surgical management of tumours of the nose and paranasal sinuses.

Technical skills

- Rigid / flexible nasal endoscopy
- Endoscopic excision of cancers
- Medial (Nasal) maxillectomy
- Partial (Oral) maxillectomy
- Total maxillectomy including Orbital exenteration
- Le Fort access surgery including midface degloving
- Rhinectomy (Total and partial)
- Craniofacial resection techniques including fascial and dermal fat graft harvest
- Scalp flap rotation and / or free flap reconstruction after nasal / orbito maxillary surgery
- Obturator & prosthesis manufacture / fitting / aftercare
- Bone stabilisation using miniplate systems and wiring techniques
- External carotid artery ligation
- Sphenopalatine artery ligation (clipping)
- Maxillary artery clipping

Advanced Topic 3: Tumours of the Larynx

Objective

1. To understand the aetiology, presenting symptoms, clinical signs, assessment and management of patients with laryngeal cancer.
2. To achieve clinical skill in surgical management of laryngeal cancer and its consequences.
3. To understand and exercise surgical options for restoration of maximum possible function.
4. To be capable of facilitating all relevant rehabilitative input necessary for best outcomes in Laryngeal Ca

Knowledge

- Anatomy and embryology of the larynx
- Physiology of speech and swallowing including morbid effects from disease / treatment
- Pathological conditions of the larynx (including non-squamous neoplastic conditions)
- Molecular biology of laryngeal cancer
- Epidemiology and aetiology of laryngeal cancer
- Presentation(s) of laryngeal cancer
- Correct evaluation / assessment and use of investigations
- TNM staging of laryngeal / neck cancer and outcomes
- Treatment options for laryngeal cancer including organ preservation strategies and side effects of treatment
- Rehabilitation of speech and voice disorders following treatment of laryngeal cancer
- Complications of surgery for laryngeal cancer

Clinical skills

- Appropriate history & examination including in patients with difficulties with communication
- Assessment of speech and swallowing
- Preoperative assessment / management of co-morbid disease
- Staging including use of appropriate special investigations
- Use of & Interpretation of Fibreoptic endoscopy, Videolaryngoscopy / FEES
- Discussion, information, counselling and consent of a laryngectomy patient
- Management of the postoperative patient
- Indications, choice, use and management of tracheo-oesophageal valves
- Management of complications following laryngeal surgery including pharyngocutaneous fistulae
- Ongoing layngectomee management longterm including voice adjuncts / life effects

Advanced Topic 3: Tumours of the Larynx

Objective

1. To understand the aetiology, presenting symptoms, clinical signs, assessment and management of patients with laryngeal cancer.
2. To achieve clinical skill in surgical management of laryngeal cancer and its consequences.
3. To understand and exercise surgical options for restoration of maximum possible function.
4. To be capable of facilitating all relevant rehabilitative input necessary for best outcomes in Laryngeal Ca

Technical skills

- Flexible nasopharyngolaryngoscopy
- Microlaryngoscopy with documentation
- Transoral endo / microscopic resection of laryngeal tumours including laser
- Partial laryngeal resections (variants and options)
- Total laryngectomy
- Surgical voice restoration, prostheses
- Tracheostomy (open/percutaneous)
- Vocal cord medialisation procedures
- Post laryngectomy voice adjunct care and management of complications

Advanced Topic 4: Tumours of the Skin (Head & Neck)

Objective

1. To understand the aetiology, presenting symptoms, clinical signs, assessment and management of patients with skin cancer of the head and neck.
2. To achieve proficiency in clinical skill and judgement in managing skin cancers in line with National guidance.

Knowledge

- Anatomy and embryology of the skin of the face, neck and ears, relevant layers and potential planes
- Concept of “Aesthetic Units” and surgical skin lines
- Anatomical landmarks of relevant deep structures at risk
- Physiological function of eyelids, nose, ears and perioral structures
- Epidemiology / risk factors / aetiology of skin cancer, including basal cell Ca ,Squamous cell Ca and melanoma variants
- Natural history and lymphatic drainage of cancers of the skin of the H&N
- TNM staging of skin cancer – non-melanoma , melanoma
- National guidance on skin malignancy management
- Surgical options for management of skin cancers – excision, local flap, regional and free flap
- Indication for neck nodal surgery in skin Ca of the Head & Neck
- Non-surgical treatments for H&N Skin Malignancy
- Understanding of Mohs surgical techniques
- Pathological conditions affecting the skin including non-squamous neoplastic conditions
- Sentinel lymph node technique applied to H&N skin Ca
- Local Anaesthetic technique, safety, risks

Advanced Topic 4: Tumours of the Skin (Head & Neck)

Objective

1. To understand the aetiology, presenting symptoms, clinical signs, assessment and management of patients with skin cancer of the head and neck.
2. To achieve proficiency in clinical skill and judgement in managing skin cancers in line with National guidance.

Clinical skills	• Appropriate History and examination including patients with difficulties in communication • Ability to examine and assess skin lesions for sinister features • Knowledge of common skin lesions of the H&N • Skin biopsy principles, adequacy, orientation & presentation to pathology services • Correct choice of diagnostic tests / imaging • Management of patients within a collaborative multidisciplinary (Skin MDT liaison) setting. • TNM Staging including use of appropriate special investigations • Preoperative assessment / management of co-morbid disease • Indications, and choice of excision technique, surgical margins indicated • Management of the postoperative patient including wound care and dressings • Management of surgical complications eg infection
Technical skills	• Local Anaesthetic technique • Skin Biopsy, effective closure , avoidance of disfigurement • Primary excision of skin tumours • Deeper excision for invasive lesions • Local and regional flaps for reconstruction • Split and full thickness skin grafts • Use of pedicled and/ or free flaps for reconstruction in extensive resections • Neck dissection in nodally positive or high risk resections

Advanced Topic 5: Reconstruction in the Head and Neck	
Objective	1. To acquire knowledge of the options available in tissue reconstruction including range of flap designs and their application / limitations 2. To demonstrate proficiency in complex reconstruction in head and neck surgical oncology.
Knowledge	• Applied anatomy of anatomical regions of donor sites for free and pedicled flaps • Vascular anatomy relevant to graft / transfer / risks in reconstruction • Applied physiology of free tissue transfer • Indications for free tissue transfer, pedicled and local axial/ random pattern flaps • Understanding of influence of comorbidity / social habits / post-operative physiological changes on tissue transfer and success rates • Preoperative assessment techniques with respect to tissue transfer including special investigations / imaging / angiography • Understanding of principles of bony reconstruction / imaging / 3D virtual synthesis • Understanding of principles of neural reconstruction / microneural repair
Clinical skills	• Targeted history and appropriate examination • Competence in preoperative counselling of patient undergoing tissue transfer with explanation of different options for reconstruction • Appropriate use and interpretation of relevant special investigations • Competent peri and postoperative management of a patient undergoing tissue transfer • Effective multidisciplinary working with other surgeons, anaesthetists and intensivists • Optimisation of post op status for best outcomes of transferred tissue • Management of complications including flap compromise , wound dehiscence, orocutaneous and pharyngocutaneous fistula, salivary invasion

Advanced Topic 5: Reconstruction in the Head and Neck

Objective

1. To acquire knowledge of the options available in tissue reconstruction including range of flap designs and their application / limitations
2. To demonstrate proficiency in complex reconstruction in head and neck surgical oncology.

Technical skills

- Split and full thickness skin grafts – harvest / inset / dressing / care
- Design, raise and inset Local reconstructive flap
- Map raise and inset regional / pedicled flap to the Head & Neck (eg Pectoralis Major)
- Choose, design, raise, detach and inset free tissue transfer flap
  - Free fasciocutaneous flaps
  - Free myocutaneous flaps
  - Free osseocutaneous flaps
  - Free osseomyocutaneous flaps
- Bony reconstruction with plating systems including reconstitution of access osteotomies
- 3D planned bony flap design and inset
- Microvascular anastomosis (vein and artery) including placement, protection and postop care.
- Siting of drains related to vascular pedicle
- Use of couplers &/or indwelling monitors of flow
- Use of monitoring observations / devices / parameters / tests of vascular sufficiency in flaps
- Neural anastomosis
- Salvage techniques for compromised free flap tissue

Advanced Topic 6: Disease of the Thyroid gland and Parathyroid Glands

Objective

1. To understand the aetiology, presenting signs, symptoms and management of patients presenting with Thyroid / Parathyroid cancer.
2. To demonstrate proficiency in surgical techniques for management of Thyroid / Parathyroid cancer.

Knowledge	• Anatomy / embryology and physiological function of the thyroid / parathyroid glands • Thyroid / parathyroid pathology / immunology • TNM Classification and staging of thyroid cancers • Presentation of thyroid / parathyroid / cancer and natural history including metastasis • Investigation and evaluation of thyroid and parathyroid disorders including imaging • Treatment options including non-surgical options • Thyroid surgery including partial & total variants • Parathyroid gland access , surgical treatment and effects • Principles of post-operative management and endocrine monitoring • Cytological Grading (Thy1 - 5 grading) of FNA samples • Appropriate knowledge of current British Thyroid Association Guidelines for management of thyroid masses • Management of medullary cell ca / multiple endocrine neoplasia
Clinical skills	• Appropriate History & specific examination including patients with difficulties with communication • Assessment of thyroid status • FNA / microtrephine techniques including USS guided sampling • Preoperative assessment including airway assessment and vocal cord check • MDT Staging including use of appropriate special investigations • Management of the postoperative patient • Management of complications including injury to recurrent laryngeal nerve, airway management and hypocalcaemia

Advanced Topic 6: Disease of the Thyroid gland and Parathyroid Glands	
Objective	1. To understand the aetiology, presenting signs, symptoms and management of patients presenting with Thyroid / Parathyroid cancer. 2. To demonstrate proficiency in surgical techniques for management of Thyroid / Parathyroid cancer.
Technical skills	• FNAC / core needle biopsy with / without ultrasound guidance • Endoscopic or other vocal cord evaluation • Partial thyroidectomy • Total thyroidectomy • Parathyroidectomy • Neck dissection including central nodes • Mediastinal exploration including sternotomy and lateral thoracotomy

Advanced Topic 7: Salivary Gland Cancer

Objective

1. To understand the aetiology, presenting signs, symptoms, diagnosis, staging and Multidisciplinary management of patients presenting with salivary gland cancer.
2. To achieve proficiency in surgical treatment and management of salivary gland tumours and their effects.

Knowledge

- Anatomy and embryology of major and minor salivary glands including Vth, VIIth - XIIth, cranial nerves
- Salivary gland physiology
- Salivary gland pathology
- Epidemiology and aetiology of salivary gland cancer
- Presentation of salivary gland cancer
- Investigations and evaluation of salivary gland disease
- TNM staging of nasopharyngeal cancer
- Principles of treatment of patients with salivary gland cancer
- Surgical / non-surgical options and outcomes
- Complications of surgery for salivary gland disease
- Followup / surveillance principles for various salivary cancers - eg adenoid cystic Ca
- Facial reanimation procedures including nerve grafting techniques

Clinical skills

- Appropriate examination / evaluation of salivary glands and associated cranial nerves
- Preoperative assessment including co-morbidities and dentition
- Use of appropriate pre-operative investigations
- Staging including use of appropriate special investigations and panendoscopy / EUA
- Management of the preoperative information, and postoperative patient effects +/- complications specific to salivary gland surgery - including cranial nerve injury, Freys syndrome and post-operative haematoma
- Ability to visualize cranial nerve course, relate to imaging of the tumour or lesion in salivary structures
- Principles of salvage options in recurrent salivary malignancy

Advanced Topic 7: Salivary Gland Cancer	
Objective	1. To understand the aetiology, presenting signs, symptoms, diagnosis, staging and Multidisciplinary management of patients presenting with salivary gland cancer. 2. To achieve proficiency in surgical treatment and management of salivary gland tumours and their effects.
Technical skills	• FNAC / Core Needle / incisional biopsy of salivary lesions as appropriate • Interpret imaging for localisation • Set up and use of intraoperative facial nerve monitor • Submandibular gland excision • Extralesional dissection parotidectomy • Superficial parotidectomy including progressive cranial nerve dissection / protection / preservation • Total (conservative and radical) parotidectomy • Extended parotidectomy with neck dissection and flap reconstruction • Minor salivary gland excision • Access surgery for parapharyngeal space and excision of parapharyngeal space tumours • Access for resection of recurrent cancer • Surgery in previously treated glands (Post Radiotherapy or Surgery)

Advanced Topic 8: Management of the Facial Nerve	
Objective	1. To understand the function and anatomy, risks and effects of H&NCa on the VIIth (Facial) Nerve. 2. To be proficient in the management of facial nerve disorder / dysfunction in patients with H&NCa including rehabilitative care. 3. To plan surgery where possible to preserve or minimize damage to the facial nerve. 4. To be familiar with techniques to replace / recover the function of the Facial Nerve
Knowledge	• Anatomy and physiology of facial nerve and related structures • Aetiology, classification and neuro-physiology of facial paralysis • Indications for investigations including radiology, electrophysiology and laboratory tests • Facial nerve function grading • Management of acute and chronic facial nerve palsy • Management and prevention of ocular complications • Principles of peri-operative facial nerve monitoring • Principles of rehabilitation for facial paralysis
Clinical skills	• History and detailed appropriate Examination • including assessment of facial nerve function / scoring • Otoscopy • Neuro-physiological tests of inner ear function and facial nerve • Interpretation of radiological tests & laboratory investigations • Understand/appreciate the psychological effects of facial disfigurement • Ability to advise on treatment options, liaise with other health care professionals including non surgical options (physio exercises , devices etc) • Able to weigh and advise on prognosis, initial and on further evaluation • Role of non-surgical management of facial nerve palsy • Psychological counselling including CBT

Advanced Topic 8: Management of the Facial Nerve	
Objective	1. To understand the function and anatomy, risks and effects of H&NCa on the VIIth (Facial) Nerve. 2. To be proficient in the management of facial nerve disorder / dysfunction in patients with H&NCa including rehabilitative care. 3. To plan surgery where possible to preserve or minimize damage to the facial nerve. 4. To be familiar with techniques to replace / recover the function of the Facial Nerve
Technical skills	• Setup and use of intra-operative facial nerve monitor • Able to manage acute problems of facial palsy including eye problems • Eyelid strategies including Gold weights, surgical options • Soft tissue surgery including static and active rehabilitation techniques • Botulinum / selective paralysis techniques • Reinnervation techniques including nerve or muscle transfer

Advanced Topic 9: Skull Base Tumours

Objective

1. To understand the identification, diagnosis, planning and approaches for surgical management of tumours affecting the Skull Base.
2. To gain skill and competence in safe resection of tumours of - or affecting - the Skull Base.
3. To obtain knowledge or competence in appropriate reconstructive options for skull base defects.
4. To work in collaboration with Neurosurgeons and within a Multidisciplinary Skull Base team. (Where available)

Knowledge

- Detailed anatomical appreciation of the cranial base, outflow of cranial nerves and key structures contiguous with the cranial base
- Anatomy of the brain and meninges
- Principles of cerebrospinal fluid generation , circulation and egress
- Pathophysiology of intracranial haemorrhage , air, infection
- Choice of and interpretation of imaging modalities to visualise the skull base.
- Access procedures / incisions / craniotomy technique / approaches to central, lateral skull base
- Temporal bone procedures
- Orbito-Zygomatic access osteotomy
- Fat Transfer camouflage of cranial post treatment defects

Clinical skills

- Ability to conduct a full neurological assessment in the setting of an appropriate surgical history
- Interpretation of imaging to appreciate extent and involvement of structures by tumour
- Use of imaging for planning surgical approaches including 3D visualisation
- Prescription and use of prosthetic obturator devices etc.
- Osteosynthesis techniques of facial / cranial reassembly
- Endoscopic techniques for skull base approach / tumour resection

Advanced Topic 9: Skull Base Tumours	
Objective	1. To understand the identification, diagnosis, planning and approaches for surgical management of tumours affecting the Skull Base. 2. To gain skill and competence in safe resection of tumours of - or affecting - the Skull Base. 3. To obtain knowledge or competence in appropriate reconstructive options for skull base defects. 4. To work in collaboration with Neurosurgeons and within a Multidisciplinary Skull Base team. (Where available)
Technical skills	• Imaging based Spatial planning of resection lines • Coronal/ hemicoronal / temporal / facial access incisions • Osteotomy with power tools • Techniques of preservation of Dural integrity, Dural repair • Reconstructive inset of tissue to exposed cranial base • Use of bioadhesives / haemostatic agents in neurosurgical applications • Bone dust / substitute / alloplastic repair of cranial defects at surgery • Restoration of skull bony defects after treatment including osteosynthesis

Advanced Topic 10: Sentinel (Neck) Node Biopsy Technique - SNB	
Objective	1. To understand the theoretical principles, safety aspects, protocols and developments of Sentinel Neck Node Biopsy. 2. To gain skill in appropriate placement of injected material, detection and identification of Sentinel Neck Node(s). 3. To demonstrate surgical competence in targeted dissection to and harvest of the sentinel node.
Knowledge	• Anatomical basis of lymphatic drainage of primary sites in the oral cavity / Head & Neck • Principles of Tracer placement, migration and localisation / detection • Health & Safety aspects of use of tracer agents • Ethics, Indications and Risks of SNB technique • Evidence base of clinical efficacy / accuracy of SNB in staging / treatment of H&N Cancer
Clinical skills	• Ability to select appropriate cases for SNB technique • Patient communication/ explanation / Consent in SNB • Operative technique / sequence / dissection principles • Planning post SNB management – options and pathway
Technical skills	• Procedural principles, team brief and timing of procedure(s) • Health and Safety management • Clinical localisation, tracer placement technique • Use of detection devices, Recognition of target node • Appropriate access incision and approach • Sentinel Node Harvest technique • Preparation of specimen for Histopathologist and presentation • Management of the SNB wound • Interpretation of Histology report and onward treatment pathway (MDT)

Advanced Topic 11: TransOral Robotic Surgery

Objective

1. To understand the principles , safe practice , indications , limitations and outcomes of Robotic Surgery conducted via the oral cavity
2. To be able to organise, dispose, set up and use remote control of a robotic surgical arm/ device via console
3. To gain insight and knowledge by assistant status during robotic procedures
4. To perform robotic procedures following an organised and progressive familiarisation including safety protocols, appropriate retraction and use of clinical assistant for coordination
5. To achieve competence in Grasp / retract / cut / diathermy / laser / suturing manoeuvres using a robotic device

Knowledge	• Comprehend the principles of remote manipulation, control linkage and possible movements / restrictions of the working robotic parts • Show knowledge of the capabilities, limitations clinical indications and contraindications of TORS • Anatomy of the oral cavity / oropharynx / nasopharynx / Hypopharynx / Glottis and extent of accessibility by robotic arm • Anatomy of structures affected by retraction, stretch of jaw muscles, TemporoMandibular Joint (TMJ) • Procedural safety / use of assistant / management of tissues using remote tools rather than line of sight • Haemostatic strategies for TORS
Clinical skills	• Clinical assessment of a possible TORS suitable Patient • Explanation and consent including effects of TORS • Patient positioning • Liaison with anaesthetist in special theatre setting • Clinical brief / team delegation / dynamics for TORS • Clinical assistant role in robotic procedures including feedback and commentary. • Dealing with post procedural effects

Advanced Topic 11: TransOral Robotic Surgery

Objective

1. To understand the principles , safe practice , indications , limitations and outcomes of Robotic Surgery conducted via the oral cavity
2. To be able to organise, dispose, set up and use remote control of a robotic surgical arm/ device via console
3. To gain insight and knowledge by assistant status during robotic procedures
4. To perform robotic procedures following an organised and progressive familiarisation including safety protocols, appropriate retraction and use of clinical assistant for coordination
5. To achieve competence in Grasp / retract / cut / diathermy / laser / suturing manoeuvres using a robotic device

Technical skills

- Correct disposition of equipment, staff in operating environment
- Setup of the robot, consoles, calibration, practice manoeuvres.
- Adjustment of visual representation
- Patient preparation, retractor placement, tissue handling as surgical assistant
- Coordination of suction, communication with operator, commentary on progress as assistant
- Self – set up for use of the console
- Operative skills using haptic devices – Freedom of movement, limits of range of movement, grasp, retract, cut, diathermise, laser emission, suturing, haemostasis.

Advanced Topic 12: Laser Surgery in Head & Neck Cancer

Objective

1. To understand the principles of laser emission and tissue interactions, various laser modalities, lasing media, wavelength and effect in Head & Neck
2. To be familiar with the safety issues, protocols, risks and team dynamics required for safe Laser surgery
3. To attain skill in manipulation of a laser emitted beam in freehand and / or microscope conducted fashion
4. To correctly recognise benefits and limitations of specific laser types and appropriate uses
5. To manage laser wounds and effects appropriately
6. (Most typically for CO2 or KTP lasers, objectives for other lasing media may vary)

Knowledge

- Physics of laser beam generation, characteristics of coherent light, concept of chromophores, measures of energy transmission.
- Applications of medical lasers – tissue interactions and effects of beam output energy / exposure time / mode / pulsing on soft tissues
- Principles of Excision, Ablation, Coagulation, Heating and the effects on surgical wounds
- Scanning devices and capabilities of a moving emitted beam
- Health & Safety, Laser legislation , Institutional procedures and policy, protective devices and wear
- Risks of laser exposure, Management of Laser plume
- Emergency management of a lung fire in a GA patient

Clinical skills

- Indications and recognition of suitable cases on history and examination
- Explanation / Consent for a laser patient
- Team Brief, procedural safety, patient / operator / staff / area precautions including Personal Protective Equipment, special equipment / instruments and boundary security
- Correct choice of Laser type for the surgical requirement
- Managing the surgical wound and postoperative effects

Advanced Topic 12: Laser Surgery in Head & Neck Cancer

Objective

1. To understand the principles of laser emission and tissue interactions, various laser modalities, lasing media, wavelength and effect in Head & Neck
2. To be familiar with the safety issues, protocols, risks and team dynamics required for safe Laser surgery
3. To attain skill in manipulation of a laser emitted beam in freehand and / or microscope conducted fashion
4. To correctly recognise benefits and limitations of specific laser types and appropriate uses
5. To manage laser wounds and effects appropriately
6. (Most typically for CO2 or KTP lasers, objectives for other lasing media may vary)

Technical skills

- Team brief for Laser procedure
- Set boundary security / safety test laser machine / team personal equipment
- Perform test emission / beam check. Choose correct settings for the task
- Arrange safety packs / isolation including protection of endotracheal tubes
- Connect to and set up microscope with manipulator where appropriate
- Interaction with laser operator where appropriate
- Disciplined laser emission / standby, coordination of plume extraction
- Management of bleeding
- Postoperative dressing choice / management of laser effects

Appendix 3: Index Procedures / Indicative Numbers

Index procedures are common but important operations central to the clinical area of the fellowship, 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 clinical area of the fellowship. Learning in the index procedures is indicative of learning in the broad range of technical procedures in the syllabus and surgical logbook and they are, therefore of significant importance for patient safety and demonstration of a safe breadth of practice. Each of these index procedures is assessed individually by means of the PBA which provides formative feedback to the fellow and feeds into the summative assessments of the AES and the end of fellowship assessment.

The table includes indicative numbers of cases, as fellows 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.

The Head & Neck TIG wishes to avoid simplistic indicative numbers and rely mainly on assessment of performance and AES assessment of adequacy of surgical exposure / ability of the individual fellow to demonstrate progress / improvement / competence / ability to perform unaided in the main surgical remit detailed in the **Key Topics** and agreed areas of **Advanced Topics**.

Appendix 4: Roles and responsibilities for supervision within the Fellowships

Assigned Educational Supervisor (AES)

AESs are consultant surgeons responsible for the management and educational progress of the fellow. 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 Trainers 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. They must have access to the support and advice of other 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 fellows are familiar with the curriculum and assessment system relevant to the level/phase of training and undertakes it according to requirements;
- Ensuring that fellows have appropriate day-to-day supervision appropriate to their position;
- Helping fellows with both professional and personal development;
- Completing a learning agreement with fellows 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 for concerns and how they have been resolved;
- Regularly inspecting fellow learning portfolios and ensuring fellows are making the necessary clinical and educational progress;
- Informing fellows of their progress and encouraging fellows to discuss any deficiencies in the training programme, ensuring that records of such discussions are kept;
- Ensuring access to fellow data is kept confidential;
- Ensuring patient safety in relation to fellow performance by the early recognition and management of those doctors in distress or difficulty;
- Discussing fellows' progress with each trainer with whom fellows spend a period of training and involving them in the formal reporting process; and
- Providing an end of placement AES report for the end of fellowship assessment.

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

The roles of AES and CS come under the umbrella of the Professionalised Trainer outlined as described in the Trainer's Area on the ISCP. The JCST is supportive of the GMC's move towards greater recognition and accreditation for clinicians undertaking the roles of AES and CS, and other responsibilities supporting education and training.

The Assessor

Assessors carry out a range of WBAs and provide verbal and written feedback to the fellow. 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 fellows with reference to the CiPs. Other members of the surgical team including senior trainees, senior nurses and doctors from other medical disciplines may assess fellows in areas where they have particular expertise. Those who are not medically qualified may also act as assessors for the fellow's Multisource 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 WBAs, including the MCR, according to their area of expertise and training;
- Providing constructive verbal feedback to fellows, including an action plan, immediately after the event;
- Ensuring access to fellow data is kept confidential; and
- Providing written feedback and/or validating WBAs in a timely manner.

The Fellow

Fellows will have been awarded certification by the GMC in their specialty and will have been selected into the fellowship. All doctors 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. Fellows 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.

Fellows are responsible for:

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

Appendix 5: Quality management of the curriculum

Curriculum development

The SACs, working with their Specialty Associations, supported by each specialty's Lead Dean, are responsible for curriculum development. 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 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, specialty organisations, deans, employers, patient and lay representatives. The process of curriculum development for post-certification fellowships will mirror this.

Internal Quality Review

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 the UK 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 all equality and diversity legislation.

The quality system has three components:

- Quality assurance: This is the responsibility of the GMC (in the UK) and is not relevant to the JCST Post-Certification Fellowship initiative.
- Quality management: The implementation of curriculum standards through training programmes at Local Office (HEE) / Deanery level in conjunction with the JCST
- Quality control: The implementation of training standards by local education providers. The local delivery of curriculum through the people involved with training, their recruitment, selection and training and the systems and resources upon which they can address concerns.

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

GMC survey

This will not apply to JCST Post-Certification Fellowships.

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 and Ireland, the Lead Dean for the specialty, a trainee representative, the Chair of the Intercollegiate Specialty Board (ex officio), the President of the Surgical 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 JCST's quality processes through first hand independent knowledge of training programmes.

The SACs' activities will include the Post-Certification Fellowships

Annual Fellowship Report (AFR) – Regional and National

Through the AFR process, the JCST will work with a variety of postgraduate bodies to collate and share information to promote training quality improvement. The Regional AFR describes the SAC's view on the quality of Fellowship training in each region and is fed back to Heads of School (or equivalent) and individual units. The National AFR gives a broad overview of training in each Fellowship and in draws out themes common to all Fellowships. The reports will be based on local quality management information, analysis of the JCST survey and other surveys, the development of curricula and the monitoring of the progress of fellows through to successful completion of the Fellowship. The AFR identifies what each specialty considers to be good practice, areas of concern and trends attributed to different areas of implementation.

Quality Indicators

The JCST Quality Indicators are the JCST and SACs' guidance on the attributes of good quality Fellowship posts. They are not used to assess the achievements of individual fellows, but rather to identify good and poor quality training, in order that appropriate action may be taken, with compliance measured via the JCST fellow survey.

JCST survey

The JCST 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. Fellows complete one survey during their Fellowship prior to their ARCP equivalent assessment. As part of its five-year strategy, the JCST shares this information in the form of annual reports. The JCST also conducts an annual survey of surgical AESs and CSs to gather information on issues particularly relevant to surgical trainers, such as use of the web-based curriculum, time and support to undertake external and training activities and the recording of continuing professional development (CPD) activity. Analysis of the findings from these surveys are key to the work of the SACs and QA Group, feeding into their meetings and the consultations SAC Liaison Members have with those responsible for curriculum delivery within their regions. 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 Fellowship training through the AFR.

JCST and ISCP data

Training data collected through the JCST and ISCP are used to inform a variety of aspects of the quality assessment process. These include curriculum delivery, adherence to quality indicators and equality and diversity issues. The ISCP is used to monitor curriculum delivery, fellow 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.

Fellows' views

Fellows' representatives will, in due course, be involved in working groups, curriculum review and the development of the ISCP training management system, including, where necessary, cascading training, testing and piloting.

Appendix 6: 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 fellows are assessed on the high-level outcomes of the curriculum: the CiPs and GPCs.

High Level Outcomes

	Assessed via							
Capabilities in Practice for all surgical specialties	CiP/GPC Self-assessment	MCR	MSF	CEX	CBD	PBA	AoA	OoT
1. Manages an out-patient clinic	✓	✓	✓	✓	✓			
2. Manages the unselected emergency take	✓	✓	✓	✓	✓	✓		
3. Manages ward rounds and the on-going care of in-patients	✓	✓	✓	✓	✓			
4. Manages an operating list	✓	✓	✓			✓		
5. Manages multi-disciplinary working	✓	✓	✓		✓			

	Assessed via							
Capabilities in Practice for Plastic Surgery	CiP/GPC Self-assessment	MCR	MSF	CEX	CBD	PBA	AoA	OoT
6. Safely assimilates new technologies and advancing techniques in the field of Plastic Surgery into practice	✓	✓	✓		✓	✓		

	Assessed via							
Generic Professional Capabilities	CiP/GPC Self-assessment	MCR	MSF	CEX	CBD	PBA	AoA	OoT
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

		Assessed via							
		CiP/GPC Self-assessment	MCR	MSF	CEX	CBD	PBA	AoA	OoT
Knowledge		✓	✓	✓	✓	✓	✓	✓	✓
Clinical skills	Clinical skills (general)	✓	✓	✓	✓	✓			
	Critical conditions (mandated CEX/CBD)	✓	✓	✓	✓	✓			
Technical skills	Technical skills (general)	✓	✓				✓		
	Index procedures (mandated PBA)	✓	✓				✓	✓	✓

Key Topics

	Assessed via					
	MCRs	Reflection	AES signoff	Course certification	Portfolio	Logbook
Knowledge (to level 4)	✓	✓	✓			
Clinical skills (to level 4)	✓	✓	✓	✓	✓	
Technical skills (to level 4)	✓	✓	✓			✓

Advanced Topics

	Assessed via					
	MCRs	Reflection	AES signoff	Course certification	Portfolio	Logbook
Knowledge	✓	✓	✓			
Clinical skills	✓	✓	✓	✓	✓	
Technical skills	✓	✓	✓	✓		✓

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Appendix 7: Fellowship completion checklist

1. Curriculum and knowledge

			Has standard been met and evidence checked?	
	Yes	**No**	**Comments** Enter details of where evidence can be found in ISCP or details of omissions and plans to resolve them	**Y / N**
Has the fellow met the requirements for knowledge in **all** Key Topics and in the chosen 3 Advanced Topics to the satisfaction of AES / Trainers?				
Has the fellow proved competent in the required Technical Skills listed for the Key Topics to the required Level 4 or above?				
Has the fellow developed the understanding of principles, specialist ability and technical skills applicable in the Advanced Topics chosen, with **two** at Level 4?				

2. Operative experience

Evidence: ISCP PBAs, eLogbook.			**Has standard been met and evidence checked?**	
	Yes	**No**	**Comments** Enter details of where evidence can be found in ISCP or details of omissions and plans to resolve them	**Y / N**
Has the fellow shown willingness and availability to exploit all training opportunities in the relevant areas in the host unit and referenced these against the requirements for Key and Advanced Topics?				
Has the fellow recorded suitable and sufficient operations in logbook format to confirm operative experience and / or contribution to surgical procedures to justify AES signoff / Core Surgeon status in a H&N Ca MDT?				
Has the fellow completed sufficient evaluations to satisfy AES and contributing trainers of attaining the physical skills required in the Key Topics as listed?				
Has the fellow shown ability to work in a multidisciplinary surgical environment and learn / use new skills from other originating specialties?				

3. Research and audit

Evidence: CV, ISCP WPBAs, MSF, completed audits, MSF, Reflection, AES/CS reports			**Has standard been met and evidence checked?**	
	Yes	**No**	**Comments** Enter details of where evidence can be found in ISCP or details of omissions and plans to resolve them	**Y / N**
Has the fellow provided evidence of achievement in a suitable research initiative?				
Has the fellow completed and presented a suitable H&N topic clinical audit, evaluated by and presented to the host unit?				
Has the fellow demonstrated personal conduct suitable to a Multi-Disciplinary Team ethos and the personal attributes suitable for core surgeon status in H&N Ca management?				

Appendix 8: Glossary

AES	Assigned Educational Supervisor
AES Report	An end of placement report by the fellow's Assigned Educational Supervisor, providing key evidence for the fellow's ARCP equivalent.
ARCP / ARCP 6	The Annual Review of Competence Progression (ARCP) panel will recommend one of eight outcomes to trainees. Outcome 6 sets out that a trainee has gained all required competences and will be recommended as having completed the training programme. For further information, please see the Gold Guide[5]). A similar process will be used for fellows
Capability	The ability to be able to do something in a competent way.
CBD	Case-Based Discussion
CEX	Clinical Evaluation Exercise
CiP	Capabilities in Practice. The high-level learning outcomes of the curriculum. Learning outcomes are statements that set out the essential aspects of learning that must be achieved. Fellows must demonstrate they have met these outcomes to reach Certification.
Core Surgical Training	The early years of surgical training for all ten surgical specialties.
Critical conditions	Any condition (identified in the syllabus) where a misdiagnosis could be associated with devastating consequences for life or limb.
CS	Clinical Supervisor
CSTAC	Core Surgical Training Advisory Committee

[5] https://www.copmed.org.uk/gold-guide/

Fellow	A surgeon undertaking a programme of training in a specific clinical area following entry to the GMC's specialist register.
Generic	Applicable to *all* fellows regardless of specialty, discipline and level of training, e.g. generic professional capabilities.
GPCs	Generic Professional Capabilities. A framework of educational outcomes that underpin medical professional practice for all doctors in the United Kingdom.
GMP	Good Medical Practice. The core ethical guidance that the General Medical Council (GMC) provides for doctors.
High Level Outcome	See *CiPs*.
Index Procedures	Common but important operations central to practice in a clinical area, competence in which is essential to the delivery of safe patient care. See section 3.5.2 and Appendix 3.
ISCP	Intercollegiate Surgical Curriculum Programme. The online portfolio for surgeons.
JCST	The Joint Committee on Surgical Training. An advisory body to the four surgical Royal Colleges of the UK and Ireland for all matters related to surgical training. The parent body for all ten SACs, the CSTAC, the TIGs and the ISCP.
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.
MCR	Multiple Consultant Report. An assessment by Clinical Supervisors that assesses fellows 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 Generic Professional Capabilities. This will be at the midpoint of a placement (formative) and the end of a placement (summative). The MCR feeds into the AES Report. It also provides fellows with both formative and summative feedback.

Protected characteristics	These are defined by the Equality Act (2010) as protected groups with characteristics which may result in that individual suffering discrimination, harassment, victimisation, or some other inequality of opportunity. The protected characteristics are: age; disability; gender reassignment; marriage and civil partnership; pregnancy and maternity; race; religion or belief; sex; sexual orientation.
SAC	Specialty Advisory Committee.
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.
Supervision level	The level of supervision required by a fellow to undertake an activity, task or group of tasks, ranging from observe only through direct and indirect supervision to unsupervised.
TIG	Training Interface Group. Advises on training in cross-specialty clinical areas.

Appendix 9: Acknowledgements

In order to satisfy the requirements for stakeholder involvement, patient representation, cross specialty and surgical training opinion in drawing up the draft syllabus it is essential to recognise the willing input and advice received from a number of sources: many clinicians, non-surgeons, and those involved in cancer care and patient interests without being directly involved in the technical aspects of surgery.

Patients

His Hon Judge Trevor BARBER

Mr Tony BISHOP

Plastic Surgery

Mr Aidan FITZGERALD – ITOG Chair past

Mr Paolo MATTEUCCI – TIG (H&N) Cttee

Mr Mani RAGBIR – PS SAC Chair, H&N TIG Chair past

ENT

Mr Gavin WATTERS – TIG (H&N) Cttee

Ms Sara SIONIS – Cons ENT

Mr Nigel BEASLEY – Cons ENT

Mr Martin WICKHAM – Cons ENT

Mr Michael NUSSBAUMER – Cons ENT

OMFS

Mr Alastair FRY – Past TIGF (H&N)

Mr Michael HO – Cons OMFS

Mr Iain VARLEY – Cons OMFS

Oncology

Dr Bernadette FORAN – Clin Oncologist BAHNO Oncology Rep, NCRI H&NCa Trials Rep

Clinical Nurse Specialists

Mrs Gill WADSWORTH – CNS

Mrs Lisa SANDERSON – CNS

Mrs Tracy WHITE – CNS

Mrs Maria BORRILL – CNS