

# **Oral and Maxillofacial Surgery**

## **Specialty Overview**

# Overview

**Oral and maxillofacial surgery** is the surgical specialty concerned with the diagnosis and treatment of diseases affecting the mouth, jaws, face and neck.

Specialists working in this area are known as oral and maxillofacial surgeons. (In some areas oral and maxillofacial surgeons may be referred to as oral and facial surgeons, maxillofacial surgeons or craniomaxillofacial surgeons). The specialty is unique in that it requires dual qualification in medicine and dentistry and is a recognised international specialty that, within Europe, is defined under the Medical Directives.

It is a separate specialty from Oral Surgery, which is defined under Dental Directives, and is confined to minor surgical procedures carried out within the oral cavity, and which is generally regarded as an ambulatory care specialty.

The scope of the specialty of oral and maxillofacial surgery is extensive and includes, but is not necessarily confined to:

- craniomaxillofacial trauma,
- cancers of the head and neck,
- diseases of the salivary glands,
- surgical treatment of facial disproportion – both congenital and acquired,
- cleft lip and palate,
- aesthetic facial surgery,
- facial pain,
- disorders of the temporomandibular joint (TMJ),
- surgical removal of impacted and buried teeth, cysts and benign tumours of the jaws,
- pre-prosthetic surgery including the placement of osseointegrated implants,
- management of infections of the head and neck including life-threatening fascial space infection
- conditions of the oral mucosa such as mouth ulcers and dentoalveolar infection.

Oral and maxillofacial surgeons generally work in teams and frequently work alongside other specialists including ENT surgeons, neurosurgeons, orthodontists, restorative dentists, clinical oncologists and plastic surgeons.

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Revised curriculum – Bob Woodward

## Specialty Specific Criteria

Standards and evidence for the practice of oral and maxillofacial surgery within the United Kingdom have been defined by the British Association of Oral and Maxillofacial Surgeons – BAOMS, the specialty association.

The majority of oral and maxillofacial surgeons currently working within the United Kingdom qualified in dentistry before qualifying in medicine. The specialty is, however, open to trainees qualifying first in medicine and then obtaining a qualification in dentistry. It is noted that the number of trainees following this route has increased with the introduction of the Modernising Medical Careers (MMC) model of specialty training.

The majority of dental graduates will obtain an MFDS from one of the surgical royal colleges prior to or during their medical undergraduate training. It is, however, important to note that an MFDS is not a requirement for entry into specialist training.

Trainees entering the specialty from a primary medical degree, may already have obtained their MRCS or may have entered undergraduate dental training straight from Foundation medical training

It is important to note that the recent review of the Specialty of Oral and Maxillofacial Surgery concluded that both medical and dental degrees are an essential component of training in the specialty, and that higher specialty training should be considered as commencing at the start of the second undergraduate degree. This has important implications for the length of training as progression becomes increasingly competence rather than time based.

There are a number of areas of specialist interest within Oral and Maxillofacial Surgery:

- Cleft lip and palate
- Head and Neck Surgical Oncology
- Cosmetic Surgery
- Surgery of Craniofacial abnormality – congenital and acquired.

Training Interface Groups (TIGs) have been established for the specific training requirements in the first three of these areas.

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# **Training Interface Groups**

## **Cleft Lip and Palate**

Cleft lip and palate are birth defects that affect the upper lip and the roof of the mouth. They occur when the tissue that forms the roof of the mouth and upper lip fail to fuse before birth. The problem can range from a simple notch in the lip to a cleft that runs into the roof of the mouth and floor of nose. It can affect the way a child's face looks and develops. It can also lead to problems with eating, speaking and recurrent ear infections.

Treatment usually takes the form of surgery to close the defect in the lip and/or palate. Doctors will do this surgery in several stages. Usually the initial surgery is during the baby's first year.

Under the auspices of the Joint Committee on (Higher) Surgical Training (JC(H)ST) the SACs in oral and maxillofacial surgery, ORL and plastic surgery have formed a Training Interface Group (TIG) to oversee fellowship training in surgery for cleft lip and palate. For further information, including how to apply for these fellowships, please see the JCHST website.

There are currently three approved fellowships within the United Kingdom. Following a recent workforce review it is intended to apply to the Department of Health for at least a further three such fellowships.

## **Head and Neck Surgical Oncology**

Cancer can arise in any of the tissues or organs in the head and neck. There are over thirty different sites that cancer can develop in the head and neck area. These include:

### **Cancers of the oral cavity**

The oral cavity includes the lips and the mouth. Cancer can occur on the tongue, the hard palate (the roof of the mouth), the gums, the floor of the mouth (under the tongue) and the inner lining of the lips and cheeks (sometimes referred to as the buccal mucosa).

### **Oropharyngeal cancer**

This develops in the oropharynx which is the part of the throat directly behind the mouth. It includes the soft palate, (the soft part of the roof of the mouth), the base of the tongue, the side walls of the throat (including the pharyngeal tonsils) and the back wall of the throat, (also called the posterior pharyngeal wall).

### **Cancer of the nose**

Cancers can develop in the skin of the nostril and the lining of the nose. The highest part of the throat, which lies directly behind the nose, is called the nasopharynx. Cancer that occurs here is known as nasopharyngeal cancer. Alongside the nose, within the bones of the face, lie airspaces which are known as the paranasal sinuses. Cancers can develop in the linings of these areas.

### **Cancer of the ear**

Cancers of the ear are rare with most developing in the skin of the ear. They can also develop in structures deep inside the ear. These cancers are extremely rare.

## **Cancer of the eye**

Cancers can develop in the skin of the eyelids. Cancers are very unusual within the eye itself. When they do occur, they are frequently a type called ocular melanoma. Occasionally a cancer of the white blood cells, called a lymphoma, may develop behind the eye. In very rare cases cancer may spread into the eye from a cancer elsewhere in the body: for example the breast.

## **Cancer of the larynx**

Cancers may also develop in the voicebox or larynx. These are particularly common in smokers and may present initially as a change in voice, particularly hoarseness.

## **Types of Head and Neck Cancer**

Head and Neck cancers are rare with approximately 8,000 people in the United Kingdom diagnosed each year. The majority of cancers of the head and neck are of a type called carcinoma (in particular squamous cell carcinoma). Carcinomas in the head and neck originate in the cells that form the lining of the mouth, nose, throat or ear, or the surface layer covering the tongue.

The Joint Committee on (Higher) Surgical Training (JCST) has recognised that treatment of patients with cancer of the head and neck represents an area of particular expertise.

The SACs in oral and maxillofacial surgery, ORL and plastic surgery have formed a Training Interface Group (TIG) in head and neck surgical oncology. The purpose of this group is to oversee and supervise specialist training in head and neck surgical oncology for trainees of the three specialties at a fellowship level. Full details of these fellowships, including how to apply for them, are contained in the JC(H)ST website.

## **Cosmetic Surgery**

Aesthetic facial surgery is also gaining increasing importance as an area of special interest. A Training Interface Group involving oral and maxillofacial surgeons, ORL surgeons and plastic surgeons together with oculoplastic and breast surgeons has recently been established. Training fellowships have just been introduced and the first trainees appointed in January 2009.

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## **The Purpose of Training**

The purpose of training in the specialty of oral and maxillofacial surgery is to produce surgeons competent to work as specialists/consultants within the United Kingdom. This includes:

- Competence to manage patients presenting with trauma affecting the craniomaxillofacial region.
- Competence to manage patients presenting with acute conditions which affect the head and neck. This includes assessment, diagnosis and treatment or referral to an appropriate specialist as appropriate.
- Competence in the management of patients presenting with the symptoms and conditions as specified in the essential parts of the syllabus with the specialty of oral and maxillofacial surgery.
- Competence in the management of an additional range of both elective and emergency conditions by virtue of appropriate and assessment opportunities obtained during training.

Professional competencies are specified in the PMETB-approved syllabus and derived from the CanMEDS framework of the Canadian Medical Association and Good Medical Practice of the General Medical Council of the United Kingdom, respectively.

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## The Training Pathway

Trainees entering the specialty of oral and maxillofacial surgery will undertake a period of initial core surgical training (CT1+2) equivalent to the previous basic surgical training (BST). Surgical specialties across the board are moving towards uniformity in training, and in the next 2 years it is likely that 3 years of Core Training will be the norm. It is accepted that the length and complexity of Oral and Maxillofacial training with two undergraduate degrees will make it unlikely that any trainee in this specialty will require 3 years core training. If 3 years core training becomes the norm, then Oral and Maxillofacial trainees will spend the 3<sup>rd</sup> year of core training in specialty prior to competitive entry to Specialty Training at ST4.

It is expected that the MRCS examination of the surgical royal colleges will be taken in the early years of training. Trainees will be expected to have acquired this prior to entry to ST4.

An exit Intercollegiate FRCS examination is taken towards the end of specialist training.

Success in this examination, together with completion of an approved training programme, will result in the award of a Certificate of Completion of Training (CCT) in oral and maxillofacial surgery. This allows entry to the Specialist Register held by the General Medical Council. Consultants in the specialty are required to have their names entered on this register.

Specialty training in oral and maxillofacial surgery will be competency based however it is expected that it will take approximately four years post core training (ST4-ST8) to acquire these competencies

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# The Scope and Standards Of Oral And Maxillofacial Practice At CCT

This section defines, in general terms, the essential skills and levels of clinical expertise expected of an oral and maxillofacial surgeon emerging from training having attained a standard equivalent to the oral and maxillofacial CCT.

It is unlikely that this expertise will be confined to the descriptions that follow as most surgeons will develop additional interests and competencies by the time they emerge from training. There is some flexibility within the curriculum to accommodate this.

In addition, within the specialty of oral and maxillofacial surgery, there are four areas of special interest that may have their own syllabus requirements. These are expressed in syllabus lists that build on the essential requirements of the basic CCT holder. These are:

- Head and Neck Surgical Oncology
- Cleft Lip and Palate
- Craniofacial Surgery
- Cosmetic surgery

It should be understood that as a surgical career develops following an award of the CCT, the range and levels of expertise will change in response to the demands of the service, personal aspirations, the needs of patients and developments within the specialty.

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

At CCT, the oral and maxillofacial surgeon will be able to:

1. Manage patients presenting with craniomaxillofacial trauma.
2. Manage patients presenting with cancer of the head and neck, in particular oral, oropharyngeal and cutaneous malignancy.
3. Be familiar with basic reconstructive techniques, including free tissue transfer, as these apply to the head and neck.
4. Manage the patient presenting with facial deformity, both congenital and acquired. This will include the treatment of patients with post-traumatic defects, syndromes of the head and neck and cleft lip and palate.
5. Manage patients requiring pre-prosthetic surgery including the placement of osseointegrated implants.
6. Manage patients presenting with diseases of the salivary glands.
7. Manage patients with diseases of the temporomandibular joints.
8. Manage patients presenting with problems relating to the teeth and their supporting structures (minor oral surgery).
9. Manage the patient presenting with facial pain.
10. Manage patients presenting with infection of the head and neck, both acute and chronic. This will include infection of the fascial spaces of the head and neck.
11. Manage patients presenting with non surgical problems which may affect the cranio-maxillofacial region





# **Academic Oral and Maxillofacial Surgery**

Research plays a central role in the development of any industry and healthcare is no exception to this. Health economists are now particularly aware of the need to identify the most cost effective, evidenced-based methods of providing treatment and to refine the application of past discoveries through service research.

Oral and maxillofacial surgery is well placed to meet these needs as the discipline already has an academic base within universities in the United Kingdom. Close links within university departments provide access to laboratories and the interaction with complimentary disciplines (oral pathology, virology, molecular biology, material sciences etc) that is a fundamental requirement for effective research. The future developments and potential of oral and maxillofacial surgery are readily found in its extensive research portfolio.

There are active research projects currently underway in most areas of oral and maxillofacial surgery.

Academic oral and maxillofacial surgeons must be trained in the essential components of the oral and maxillofacial surgery curriculum in addition to the particular demands imposed by academic training.

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## Relationships With Other Specialties

- Oral & maxillofacial (OMF) surgeons are experts on diseases affecting the mouth, face, jaw and neck. They diagnose and treat symptoms, pathology, deformity and trauma affecting the mouth, face, jaws and neck.
- As a result of their experience in managing a wide range of conditions affecting this well-defined anatomical region, OMF Surgeons can provide advice on multi-system pathology, particularly where this affects the head and neck.
- OMF surgeons frequently provide specialist advice for other disciplines treating head and neck conditions, including trauma, cancer and deformity. Thus a broad spectrum of medical and dental specialties may interact with oral and maxillofacial surgery as follows:

### Accident & Emergency

OMF surgeons provide major support to all hospital A & E Departments, for both soft and hard tissue injuries to the face, scalp and neck and for infections in this region. Sport injuries - Clinicians specialising in sports injuries may seek OMFS advice in *relation to facial injuries sustained during sporting activities*. OMF surgeons are core members of the trauma teams at hospitals which receive major trauma cases.

### Neurosurgery & Neurosciences

OMF surgeons and neurosurgeons collaborate on surgery for trauma, deformity and oncology, which involve the face and head and are involved in the diagnosis of facial symptoms indicative of neural pathology. This is particularly important in the diagnosis and treatment of cervicofacial pain. OMF surgeons conduct facial disassembly procedures for intra-cranial and spinal access surgery and provide skull base reconstruction for neurosurgeons, fulfilling an important role in craniofacial surgical units.

### Ophthalmology

OMF surgeons and ophthalmologists collaborate in the treatment of orbital trauma, oncology and deformity, and carry out orbital decompression in thyroid eye disease. Oculoplastic procedures are undertaken by both specialties.

### Dental Specialties

OMF surgeons have a close relationship with orthodontists, restorative dental surgeons in relation to prosthetics, periodontal disease and advanced restorative procedures for dental implants. There is an important collaborative role in the preparation of oral oncology patients before, during and after radiotherapy. OMF surgeons work closely with oral medicine consultants in the diagnosis and management of oral mucosal disease. OMF surgeons rely heavily on their colleagues in Oral Pathology for assistance with histopathological diagnosis of oral lesions. Dental hygienists have an important role in maxillofacial units.

### Dermatology

OMF surgeons consult with dermatologists in the treatment of patients with vesiculobullous disease, oral mucosal disease and connective tissue disorders, such as systemic sclerosis, and provide an important surgical service for facial skin cancer.

### Clinical Genetics

OMF surgeons seek advice from geneticists for the families of children with severe facial deformity and other head and neck syndromes.

### **Clinical Oncology**

OMF surgeons have a leading role in the management of head and neck neoplasia. They work as part of multi-disciplinary teams and have a special relationship with clinical oncology and radiotherapy. The specialty provides a surgical service in the diagnosis and management of these conditions and can advise on and manage problems arising in the oral cavity in patients with other neoplasms, who become immunosuppressed.

OMF surgeons also play a major role in the reconstruction of patients following major ablative surgery for head and neck malignancy as well as for post traumatic deformity. Frequently this will include free tissue transfer and microsurgical vascular anastomotic techniques.

### **Anaesthetics**

OMF surgeons liaise closely with anaesthetists in patients with upper airway problems. Anaesthetists are vital members of the team treating surgical disease in the orofacial region frequently developing special expertise in this field.

### **Endocrinology**

OMF surgeons can provide a surgical service to reduce the size of prominent jaws in patients with acromegaly and Paget's disease and have the technical expertise to provide a surgical service for thyroid and parathyroid disease.

### **Cardiology and Cardiothoracic Surgery**

OMF surgeons advise on the oral and dental status of patients with valvular heart and coronary artery disease. This is particularly important prior to valve replacement and cardiac transplantation.

### **Paediatrics**

OMF surgeons collaborate with paediatricians in the diagnosis and treatment of cervical and orofacial infections and paediatric neoplasia. They provide treatment for neonates with craniofacial deformity. They also form an important part of the multi-disciplinary team approach in cleft lip and palate and craniofacial units.

### **Orthopaedics**

OMF surgeons provide vital expertise in the multidisciplinary treatment of polytrauma patients.

### **Otolaryngology**

There is often a very close relationship between OMF surgeons and their ORL colleagues, with significant anatomical overlap in their respective areas of practice.

### **Plastic Surgery**

OMF surgeons work alongside plastic surgeons - particularly in multi-disciplinary teams treating patients with cleft lip and palate and head and neck malignancy.

### **Psychiatry**

OMF surgeons request the psychiatric assessment of some patients, prior to facial deformity surgery, and collaborate with psychiatric colleagues in the management of patients with facial pain.

### **Rheumatology**

OMF surgeons collaborate in the management of patients with joint and connective tissue diseases, particularly where they affect the temporomandibular joint, face and mouth. They also provide a surgical service for those patients with Sjögren's disease, who have clinical problems or develop lymphoma in their salivary glands. They provide a diagnostic surgical service in suspected giant cell arteritis.

### **Intensive Care**

OMF surgeons are trained to provide a surgical tracheotomy service for those patients requiring prolonged endotracheal intubation. Patients who have undergone major surgical procedures for malignancy, craniomaxillofacial trauma or craniofacial disease may spend the immediate post-operative period in an Intensive Care Unit.

### **Respiratory Medicine**

OMF surgeons liaise with respiratory physicians and orthodontists for the provision of intra-oral devices to control obstructive sleep apnoea and surgically enlarge micrognathic mandibles by conducting jaw osteotomies in a select group of these patients. They also provide a surgical service for neck node biopsy in suspected cases of tuberculosis sarcoidosis, and other conditions. Advice may be sought from these specialties in patients with compromised respiratory efficiency prior to surgery.

### **Gastroenterology**

OMF surgeons frequently see patients whose first manifestation of a systemic gastroenterological disease is in the mouth. They liaise with gastroenterologists regarding the management of these patients. The specialties have a close relationship in the provision of percutaneous endoscopic gastrostomies (PEGs) in patients undergoing major head and neck surgical procedures.

### **Renal Medicine**

As a result of immunosuppression, renal transplant patients are at particular risk of skin and oral cancer. OMF surgeons are involved in the management of these patients where the disease affects the face and mouth.

### **Allied Health Professions (AHPs)**

OMF surgeons have close relationships with speech and language therapists, dieticians, physiotherapists, occupational therapists, audiologists and other specialties allied to medicine in the management of a large range of patients requiring support and rehabilitation during and after treatment of conditions affecting the mouth, face, jaws and neck.

# Medical Staff Delivering Oral and Maxillofacial Surgical Services Within The United Kingdom

Oral and maxillofacial surgery (OMFS) units are increasingly being organised on a regional basis with specialists based in a central (hub) unit which also provides treatment at a number of peripheral (spoke) units). As the effects of the European working time directive (EWTD) and the New Deal for Junior Doctors become clear oral and maxillofacial surgery services are becoming increasingly consultant-provided.

A typical oral and maxillofacial unit will comprise consultants in this specialty. Many will have particular areas of special interest which may include:

- Head and Neck Surgical Oncology
- Acquired and Congenital Facial Deformity
- Cleft Lip and Palate
- Craniofacial Deformity
- Craniomaxillofacial Trauma

Many oral and maxillofacial units are also staffed by staff and associate specialist grade doctors and dentists (SAS grades). These are non-training grades and may be filled by dually or singly-qualified clinicians. Many of the dentally-qualified SAS grades are on the Specialist List in Oral Surgery. This is overseen by the General Dental Council (GDC).

It has been calculated that, in order to provide a comprehensive service to the population of the United Kingdom, there should be one consultant in oral and maxillofacial surgery for every 150,000 members of the population. Current numbers fall well short of this ratio, but surgical workforce reviews take place every year with new posts being made available in response to clinical need and available funding.

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# Key Topics

## Key Topics Oral and Maxillofacial Surgery

Key topics are those that are considered essential to the specialty. The topics have associated key procedures. All trainees should have been routinely exposed to them, and have acquired the relevant clinical competencies, prior to the award of a CCT. Trainers should ensure that trainees are fully assessed in the management of these topics/procedures in particular:

**Important note:** Competence in these topics/procedures will be taken to denote competence in the management of closely related pathology or less complex procedures in the same anatomical area.

## Key Topics and Associated Essential Procedures

- Management of a patient with dento-alveolar pathology
  - Surgical extraction of unerupted/impacted teeth and roots
  - Apical surgery / excision of jaw cyst
- Management of infections of the head and neck
  - Drainage of tissue space infection
- Management of patient with compromised airway
  - Surgical access to airway (tracheostomy / cricothyroidotomy)
- Management of maxillofacial trauma
  - Repair of facial lacerations
  - Reduction and fixation of fracture of mandible
  - Fracture of mandibular condyle - open reduction and fixation
  - Elevation and fixation of fractured zygoma
  - Fracture of orbital floor – repair and graft
- Management of salivary gland swellings
  - Submandibular gland excision
  - Parotidectomy
- Management of oro-facial pain / temporomandibular joint dysfunction
  - Temporomandibular joint arthrocentesis
- Management of a patient with benign jaw tumour
  - Resection of odontogenic tumour / fibro-osseous lesion
  - Harvest of bone graft
- Potentially malignant and malignant epithelial tumours of the mucosa and skin
  - Local skin flaps
  - Excision of malignant skin tumour
- Management of patient with a neck lump / swelling
  - Neck dissection(s)
- Management of a patient with developmental/acquired deformity of facial skeleton
  - Mandibular ramus osteotomy
  - Maxillary osteotomy
  - Rhinoplasty
- Cancer of the head and neck region
  - Excision of oral / oropharyngeal or jaw malignancy
- Reconstructive surgery
  - Pedicled flaps
  - Free tissue transfer
- Patient requiring osseointegrated implants
  - Insertion of intra-oral implants and abutment connection

# Initial Stage

## Overview of Initial Stage

The purpose of the initial stage CT1+2 is to allow a trainee to acquire and develop the key fundamental skills that will form a basis for further progress in the specialty.

The initial stage of specialist training will combine experience in other surgical specialties with training in basic aspects of oral and maxillofacial surgery. The aim should be to acquire competencies and basic surgical skills that will improve understanding of the care of the surgical patient. The **‘Core Surgical Skills and Knowledge for All Specialties’** is common across all the surgical specialties.

Related surgical disciplines that can contribute to training at this stage include:

- General surgery
- Otolaryngology
- Plastic surgery
- Orthopaedic surgery
- Neurosurgery
- Accident and emergency medicine

A logbook and training portfolio should be kept to allow assessment of relevant competencies that can be accepted towards specialist training. Successful attendance at basic surgical skills and ATLS courses would be expected during this stage of training. Instructional and skills courses in basic aspects of the specialty will also be attended during the first two years. These include, for example, head and neck anatomy and maxillofacial plating courses.

By the end of CT2 the OMFS trainee will have acquired the following:

- Experience in at least one, and preferably two, related surgical specialties
- Generic skills to allow team working, and management of and communication with both colleagues and patients, as well as a high standard of professionalism
- Clear understanding of the basic sciences as they relate to the pathology and practice of surgery, and oral and maxillofacial surgery in particular
- Competence in basic operative skills
- Competence in the basic perioperative care of the surgical patient
- Core training represents the ideal stage for the trainee to obtain the IMRCS

The syllabus details the areas that it is reasonable to expect a trainee in the initial stage of training to be able to deal with whether encountered as a result of being ‘on-call’ or working in an out-patient clinic setting. It is recognised that different trainees start with different levels of experience and will progress at different rates. The progress made will vary both with the trainee’s innate abilities and also the workload and casemix of the trainers with whom they work. Those trainees following an academic pathway will be expected to achieve the same level of competence at the end of CT2 as trainees undertaking a ‘Surgery in general – OMFS programme’.

With the introduction of CT 3 across the surgical specialties, for OMFS surgical trainees CT3 will be spent in specialty and will provide an introduction to the spectrum of OMFS.

The following problems are commonly encountered and should be managed competently by the end of CT3, up to and including operative intervention if appropriate.



- Diagnosis and management of dento-alveolar pathology
- Diagnosis and management of common oral mucosal disease
- Facial lacerations
- Fractures of the facial bones
- Diagnosis and management of temporomandibular joint pain and facial pain
- Diagnosis and investigation of salivary gland and neck swellings

The objective to be achieved for these conditions is:

- To be able to assess a patient presenting either acutely or in the out-patient clinic
- To be able to formulate a differential diagnosis and an investigation and management plan
- To be able to treat the patient appropriately up to and including operative intervention if appropriate
- To be able to communicate the above information at the required level to patients/carers/other team members

During this stage the trainee will gain competence to the level defined in the syllabus in a number of technical skills and procedures. A trainee would be expected to be able to perform all of the procedures listed below without the direct scrubbed assistance or supervision of a trainer. The list is not exhaustive, although it covers most of the common procedures expected at this stage.

It should be noted that competence in some additional procedures can be obtained at this stage rather than in the later stages in training. Once more this may be due to a number of reasons, such as increased exposure to the procedures, past experience and innate surgical ability.

## **Dento-alveolar Surgery**

- Surgical extraction of retained/buried roots/teeth
- Surgical exposure of unerupted tooth
- Transplantation of tooth
- Apicectomy/retrograde root sealing
- Enucleation of jaw cyst
- Closure of oro-antral fistula
- Removal of tooth/root from maxillary antrum
- Excision of benign oral/gingival soft tissue lesion
- Lingual/labial frenectomy
- Excision of exostosis/benign lesion of bone

## **Maxillofacial Trauma**

- Repair of facial lacerations
- Treatment of dento-alveolar fractures
- Reduction of fractured nasal bones

## **Salivary gland surgery**

- Labial gland biopsy
- FNAC of salivary gland
- Excision of mucocoele of lip

## **Neck surgery**

- Drainage of tissue space infection
- FNAC neck mass

## **Resection of malignant tumours**

- Excision of malignant skin tumour

## **Reconstructive surgery**

- Harvest of skin graft
- Harvest of intra-oral bone graft
- Local skin flaps

## **CT3 Placement in Oral and Maxillofacial Surgery**

The purpose of a 12-month placement in an OMFS service during CT3 will include the following:

- To develop some of the key skills that will underpin further training and experience in the specialty
- To provide experience in OMFS for the trainee intending to take up a career in one of the head and neck surgical specialties

### **Knowledge**

- Enhanced knowledge of regional and developmental head and neck anatomy
- Natural history and patho-physiology of common head and neck conditions with particular emphasis on oncology and trauma
- Management pathways for conditions presenting both as emergencies and electively to the OMFS service.

### **Clinical Skills**

- The examination and investigation of common maxillo-facial clinical problems – elective and emergency
- The ability to construct an appropriate management plan for common OMFS patients
- Specialist examination techniques applicable to OMFS conditions, including endoscopic techniques
- The ability to apply and evaluate the results of head and neck imaging techniques

### **Technical Skills**

- Perform minor oral surgical procedures under local and/or general anaesthetic.
- Become a competent assistant for OMFS surgical procedures
- By the end of the attachment to be competent to perform at least one intermediate surgical procedure in the head and neck under direct supervision e.g. excision of the submandibular salivary gland, excision of thyroglossal cyst

### **Professional Skills**

In the context of OMFS practice:

- Demonstrate good team working skills, including teaching where appropriate and accepting and acting on feedback
- Demonstrate a caring, professional attitude to patients and their relatives.
- Demonstrate a satisfactory work ethic e.g. commitment to the patient, support of colleagues and task completion.
- Demonstrate good time-management

Click on [Workplace Based Assessments](#) to view the assessment forms including DOPS and PBAs

## Topics

<b>Topic</b>	<b>Basic sciences</b>
<b>Category</b>	Core Surgical Skills and Knowledge for All Specialties
<b>Sub-category:</b>	None
	<i>Underpinning basic science knowledge appropriate for the practice of surgery.</i>
	<i>Applied anatomy: Knowledge of anatomy appropriate for surgery</i>
	<i>Physiology: Knowledge of physiology relevant to surgical practice</i>
<b>Objective</b>	<i>Pathology: Knowledge of pathological principles underlying system specific pathology</i>
	<i>Microbiology: Knowledge of microbiology relevant to surgical practice</i>
	<i>Radiology: Knowledge of diagnostic and interventional radiology</i>
	Applied anatomy:
	4 Development, organs and structures, surface and imaging anatomy of thorax, abdomen, pelvis, perineum, limbs, neck as appropriate for surgical operations
	Physiology:
	4 Homeostasis
	3 Thermoregulation
	3 Metabolic pathways
	4 Blood loss
	4 Sepsis
<b>Knowledge</b>	4 Fluid balance and fluid replacement therapy
	3 Metabolic abnormalities
	Pathology:
	4 Inflammation
	4 Wound healing
	4 Cellular injury
	4 Vascular disorders
	4 Disorders of growth, differentiation and morphogenesis
	4 Tumours
	3 Surgical immunology
	3 Surgical haematology

Microbiology:

- 4 Surgically important microorganisms
- 4 Sources of infection
- 4 Asepsis and antisepsis
- 4 Sterilisation
- 4 Antibiotics
- 4 High risk patient management

Radiology:

- 3 Principles of diagnostic and interventional radiology
- 2 Knowledge base of radiology protection and basic radiological skills pertinent to the head and neck
- 2 Basic intra oral imaging skills

**Clinical Skills**

**Technical Skills and Procedures**

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

**Topic** **Basic surgical skills**

**Category** Core Surgical Skills and Knowledge for All Specialties

**Sub-category:** None

*Acquisition of basic surgical skills in instrument and tissue handling.*

*Incision of skin and subcutaneous tissue: Ability to incise superficial tissues accurately with suitable instruments.*

*Closure of skin and subcutaneous tissue: Ability to close superficial tissues accurately.*

*Knot tying: Ability to tie secure knots.*

**Objective**

*Haemostasis: Ability to achieve haemostasis of superficial vessels.*

*Tissue retraction: Use of suitable methods of retraction.*

*Use of drains: Knowledge of when to use a drain and which to choose.*

*Tissue handling: Ability to handle tissues gently with appropriate instruments.*

*Skill as assistant: Ability to assist helpfully, even when the operation is not familiar.*

Incision of skin and subcutaneous tissue:

- 4 Langer's lines
- 4 Healing mechanism
- 4 Choice of instrument
- 4 Safe practice
- 4 Basic Surgical Skills course

**Knowledge**

Closure of skin and subcutaneous tissue:

- 4 Options for closure
- 4 Suture and needle choice
- 4 Safe practice

Knot tying:

- 4 Choice of material

Haemostasis:

- 4 Techniques

Tissue retraction:

- 4 Choice of instruments

Use of drains:

- 4 Indications
- 4 Types
- 4 Management/removal

Tissue handling:

- 4 Choice of instruments

Incision of skin and subcutaneous tissue:

- 4 Ability to use scalpel, diathermy and scissors

Closure of skin and subcutaneous tissue:

- 4 Accurate and tension free apposition of wound edges

Knot tying:

- 4 Single handed
- 4 Double handed
- 4 Instrument
- 4 Superficial
- 4 Deep

**Clinical Skills**

Haemostasis:

- 4 Control of bleeding vessel (superficial)
- 4 Diathermy
- 4 Suture ligation
- 4 Tie ligation
- 4 Clip application

Tissue retraction:

- 4 Tissue forceps

4 Placement of wound retractors

Use of drains:

4 Insertion

4 Fixation

4 Removal

Tissue handling:

4 Appropriate application of instruments and respect for tissues

Skill as assistant:

4 Anticipation of needs of surgeon when assisting

**Technical Skills and Procedures** N/A

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

**Topic** **The Assessment and Management of the Surgical Patient**

**Category** Core Surgical Skills and Knowledge for All Specialties

**Sub-category:** None

**Objective** *Ability to assess the patient and manage the patient, and propose surgical or non-surgical management.*

**Knowledge**

3 Surgical history and examination (elective and emergency)

3 Construct a differential diagnosis

3 Plan investigations

3 Clinical decision making

**Clinical Skills** 3 Case work up and evaluation; risk management

3 Active participation in MDTs

3 Taking consent for intermediate level intervention; emergency and elective

3 Written clinical communication skills

3 Interactive clinical communication skills: patients

3 Interactive clinical communication skills: colleagues

**Technical Skills and Procedures** N/A

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

**Topic** **Peri-operative care**

**Category** Core Surgical Skills and Knowledge for All Specialties

**Sub-category:** None

*Ability to manage patient care in the peri-operative period.*

**Objective** *Pre-operative assessment and management: Ability to assess the patient adequately prior to operation and manage any pre-operative problems appropriately.*

*Intraoperative care: Ability to conduct safe surgery in the operating theatre environment.*

*Post-operative care: Ability to care for the patient in the post-operative period.*

*Blood Products: Appropriate use of blood products.*

*Antibiotics: Appropriate use of antibiotics.*

Pre-operative assessment and management:

- 4 Cardiorespiratory physiology
- 3 Diabetes mellitus
- 3 Renal failure
- 4 Pathophysiology of blood loss
- 4 Pathophysiology of sepsis
- 4 Risk factors for surgery and scoring systems
- 3 Principles of day surgery

Intraoperative care:

- 4 Safety in theatre
- 4 Sharps safety
- 4 Diathermy, laser use
- 4 Infection risks
- 3 Radiation use and risks
- 4 Tourniquets
- 3 Principles of local, regional and general anaesthesia

## **Knowledge**

Post-operative care:

- 4 Cardiorespiratory physiology
- 3 Diabetes mellitus
- 3 Renal failure
- 4 Pathophysiology of blood loss
- 4 Pathophysiology of sepsis
- 4 Complications specific to particular operation
- 2 Critical care

Blood Products:

- 4 Components of blood
- 4 Alternatives to use of blood products

Antibiotics:

- 4 Common pathogens in surgical patients
- 4 Antibiotic sensitivities
- 4 Antibiotic side-effects
- 4 Principles of prophylaxis and treatment

Pre-operative assessment and management:

## **Clinical Skills**

- 4 History and examination
- 4 Interpretation of pre-operative investigations

3 Management of comorbidity

4 Resuscitation

Intraoperative care:

4 Safe conduct of intraoperative care

Post-operative care:

4 Assessment of patient's condition

4 Post-operative analgesia

4 Fluid and electrolyte management

4 Monitoring of post-operative patient

4 Detection of impending organ failure

4 Initial management of organ failure

4 Use of MDT meetings

Blood Products:

4 Appropriate use of blood products

4 Management of the complications of blood product transfusion

Antibiotics:

4 Appropriate prescription of antibiotics

**Technical Skills  
and Procedures**

N/A

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

**Topic** **Assessment of multiply injured patients including children**

**Category** Core Surgical Skills and Knowledge for All Specialties

**Sub-category:** None

**Objective** *Safely assess the multiply injured patient.*

**Knowledge** 3 Anatomy

3 Pathogenesis of shock

1 Differences In Children

4 History and examination

3 Investigation

**Clinical Skills** 4 Resuscitation and early management according to ATLS and APLS guidelines

3 Referral to appropriate surgical subspecialties

**Technical Skills** 3 Central venous line insertion

**and Procedures** 3 Chest drain insertion

2 Diagnostic peritoneal lavage

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

**Topic** **Bleeding diathesis**

**Category** Core Surgical Skills and Knowledge for All Specialties



<b>Sub-category:</b>	None <i>Understand, Recognise and Manage bleeding diathesis in the surgical patient.</i>
<b>Objective</b>	<i>Diagnosis: Diagnose possible bleeding diathesis in the surgical patient.</i> <i>Treatment: Manage bleeding diathesis in the surgical patient.</i> Diagnosis:
<b>Knowledge</b>	3 Mechanism of haemostasis 3 Pathology of impaired haemostasis e.g. haemophilia, liver disease, massive haemorrhage  Treatment: 3 Understands use of blood products Diagnosis: 4 Recognition of conditions likely to lead to the diathesis 3 Recognition of abnormal bleeding during surgery
<b>Clinical Skills</b>	Treatment:  3 Avoidance by correct surgical techniques 3 Corrective measures, e.g. warming, packing
<b>Technical Skills and Procedures</b>	N/A
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Initial</a> section for these skills

<b>Topic</b>	<b>Venous thrombosis + embolism</b>
<b>Category</b>	Core Surgical Skills and Knowledge for All Specialties
<b>Sub-category:</b>	None <i>Understanding of practice in the prevention and management of Venous thrombosis and Embolism.</i>  <i>Coagulation: Understanding of the physiology and pathophysiology of coagulation.</i>
<b>Objective</b>	<i>Diagnosis: Able to arrange basic investigation of patients with suspected venous thrombosis and embolism.</i>  <i>Treatment: Ability to initiate treatment of venous thrombosis and embolism.</i>  <i>Prophylaxis: Use of common methods of prophylaxis against venous thrombosis and embolism.</i> Coagulation:
<b>Knowledge</b>	2 Clotting mechanism (Virchow Triad) 2 Effect of surgery and trauma on coagulation 2 Tests for thrombophilia and other disorders of coagulation

Diagnosis:

2 Methods of investigation for suspected thromboembolic disease

Treatment:

4 Anticoagulation, heparin and warfarin

2 Role of V/Q scanning, CT angiography and thrombolysis

2 Place of pulmonary embolectomy

Prophylaxis:

3 Knowledge of methods of prevention, mechanical and pharmacological

Coagulation:

4 Recognition of patients at risk

Diagnosis:

3 Awareness of symptoms and signs associated with pulmonary embolism and DVT

**Clinical Skills** 2 Role of duplex scanning, venography and d-dimer measurement

Treatment:

3 Initiate and monitor treatment

Prophylaxis:

4 Awareness at all times of the importance of prophylaxis

**Technical Skills  
and Procedures**

N/A

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

**Topic**

**Nutrition**

**Category**

Core Surgical Skills and Knowledge for All Specialties

**Sub-category:**

None

**Objective**

*Recognise the need for artificial nutritional support and arrange enteral nutrition.*

**Knowledge**

3 Effects of malnutrition, both excess and depletion

3 Methods of screening and assessment

3 Arrange access to suitable artificial nutritional support, preferably via a nutrition team: Dietary supplements

**Clinical Skills**

2 Arrange access to suitable artificial nutritional support, preferably via a nutrition team: Enteral nutrition

1 Arrange access to suitable artificial nutritional support, preferably via a nutrition team: Parenteral nutrition

**Technical Skills  
and Procedures**

4 Ability to secure nasogastric feeding

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

<b>Topic</b>	<b>Academic activity</b>
<b>Category</b>	Core Surgical Skills and Knowledge for All Specialties
<b>Sub-category:</b>	None <i>An introduction to research methodology and to teaching others.</i>
<b>Objective</b>	<i>Research: Ability to perform a simple research study and present the results.</i>  <i>Teaching: Ability to teach small groups such as medical students.</i> Research:
<b>Knowledge</b>	2 Research methodology  Teaching:  2 Teaching methods Research:
<b>Clinical Skills</b>	2 Ability to analyse published evidence  Teaching:
<b>Technical Skills and Procedures</b>	3 Ability to teach small groups  N/A
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Initial</a> section for these skills

<b>Topic</b>	<b>Management of the dying patient</b>
<b>Category</b>	Core Surgical Skills and Knowledge for All Specialties
<b>Sub-category:</b>	None <i>Ability to manage the dying patient appropriately.</i>
<b>Objective</b>	<i>Palliative Care: Good management of the dying patient in consultation with the palliative care team.</i>  <i>Principles of organ donation: Knowledge of the principles of organ donation.</i> Palliative Care:
<b>Knowledge</b>	3 Care of the terminally ill 4 Analgesia 3 Antiemetics 3 Laxatives  Principles of organ donation:  3 Circumstances in which consideration of organ donation is appropriate 3 Principles of brain death  3 Understanding the role of the coroner and the certification of death

<b>Clinical Skills</b>	Palliative Care: 3 Symptom control in the terminally ill patient
<b>Technical Skills and Procedures</b>	N/A
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Initial</a> section for these skills

<b>Topic</b>	<b>Endocrine and Metabolic Disorders</b>
<b>Category</b>	Core Surgical Skills and Knowledge for All Specialties
<b>Sub-category:</b>	None
<b>Objective</b>	<p><i>To identify, investigate and manage surgical patients with common metabolic disorders</i></p> <ul style="list-style-type: none"> <li>- <i>To identify, investigate and manage surgical patients with Thyrotoxicosis</i></li> <li>- <i>To identify, investigate and manage surgical patients with Hypothyroidism</i></li> <li>- <i>To identify, investigate and manage surgical patients with Hypercalcaemia</i></li> <li>- <i>Knowledge of the significance of corticosteroid therapy in patient care</i></li> <li>- <i>To identify, investigate and manage surgical patients with diabetes mellitus</i></li> <li>- <i>To identify, investigate and manage surgical patients with Hyponatraemia</i></li> </ul>
<b>Knowledge</b>	<p>Thyrotoxicosis 4 Pathophysiology of thyroid hormone excess and associated risks from surgery</p> <p>Hypothyroidism 4 Pathophysiology of thyroid hormone deficiency and associated risks from surgery</p> <p>Hypercalcaemia 3 Causes and effects of hypercalcaemia</p> <p>Cortico-steroid therapy 4 Complications 4 Steroid insufficiency</p> <p>Diabetes Mellitus 4 Complications</p> <p>Hyponatraemia 4 Pathophysiology of fluid and electrolyte balance 4 Causes of hyponatraemia</p> <p>Thyrotoxicosis 4 History and examination 3 Investigation of thyrotoxicosis</p> <p>Hypothyroidism 4 History and examination 4 Investigation</p> <p>Hypercalcaemia 3 Investigation of hypercalcaemia 3 Treatment of hypercalcaemia</p>
<b>Clinical Skills</b>	

Cortico-steroid therapy  
4 Peri-operative management of patients on steroid therapy

Diabetes Mellitus  
4 Peri-operative management of diabetic patients

Hyponatraemia  
4 Treatment

**Technical Skills and Procedures** N/A

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

**Topic** **Child Protection**

**Category** Core Surgical Skills and Knowledge for All Specialties

**Sub-category:** None

**Objective** a thorough understanding of the regulatory processes around child protection, and acquisition of appropriate diagnostic skills relevant to non-accidental injury as seen in Oral and Maxillofacial surgical practice

**Knowledge**

4 Working knowledge of trust and Local Safeguarding Children Boards (LSCBs) Child Protection Procedures

4 Basic understanding of child protection law

4 Understanding of Children's rights

4 Working knowledge of types and categories of child maltreatment, presentations, signs and other features (primarily physical, emotional, sexual, neglect, professional)

4 Understanding of one personal role, responsibilities and appropriate referral patterns in child protection

4 Understanding of the challenges of working in partnership with children and families

Ability to:

4 Recognise the possibility of abuse or maltreatment

4 Recognise limitations of own knowledge and experience and seek appropriate expert advice

**Clinical Skills**

4 Urgently consult immediate senior in surgery to enable referral to paediatricians

4 Keep appropriate written documentation relating to child protection matters

4 Communicate effectively with those involved with child protection, including children and their families

**Technical Skills and Procedures** N/A

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

**Topic** **Anatomy**

**Category** Basic Science Knowledge

**Sub-category:** None

**Objective**

*To understand the surgical anatomy that oral and maxillofacial surgeons will encounter during the management of surgical patients and the development of anatomical systems.*

Skull, brain and cranial cavity:

- 3 Embryogenesis of skull
- 3 Functional knowledge of brain and its coverings
- 3 Knowledge of common anatomical variations of skull
- 3 Applied surgical anatomy.

Orbit and eye:

- 3 Development of orbit and eye.
- 3 Relations within maxillofacial skeleton
- 3 Applied surgical anatomy

Nose and paranasal sinuses:

- 3 Development of nose and paranasal sinuses.
- 3 Relations of these structures to the maxillofacial skeleton
- 3 Applied surgical anatomy

Facial musculature/soft tissues:

- 3 Development of facial musculature and its effect on development of the head and neck in general
- 3 Applied surgical anatomy

**Knowledge**

Temporomandibular joint and infratemporal fossa:

- 3 Embryogenesis and development of the temporomandibular joint
- 3 Functional anatomy of the TMJ
- 3 Applied surgical anatomy of the TMJ and infratemporal fossa

External, middle and inner ear:

- 3 Functional anatomy
- 3 Applied surgical anatomy

Oral cavity, teeth and supporting structures, pharynx:

- 3 Embryogenesis and development of the oral cavity and pharynx
- 3 Applied surgical anatomy

Mandible and maxilla:

- 3 Embryogenesis of maxilla and mandible
- 3 Facial growth
- 3 Disorders of development
- 3 Applied surgical anatomy

Larynx, trachea, neck and thoracic inlet

- 2 Developmental anatomy of the neck.

2 Disorders of development  
2 Applied surgical anatomy

Blood supply to skin, fascia, muscle and bone:

3 Knowledge of principles of blood supply to skin, fascia, muscle and bone  
3 Applied surgical anatomy

Regional anatomy relevant to bone grafts and common pedicled/free flaps:

3 Applied surgical anatomy of limbs, thoracic cage, back, abdominal wall, groin and pelvis

3 Application of this knowledge appropriately in the clinical setting

**Clinical Skills** Blood supply to skin, fascia, muscle and bone:

3 Application of this knowledge appropriately in relation to design of reconstructive flaps

**Technical Skills and Procedures**

N/A

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

<b>Topic</b>	<b>Physiology</b>
<b>Category</b>	Basic Science Knowledge
<b>Sub-category:</b>	None
<b>Objective</b>	<i>To understand the normal physiological processes at different ages and to understand the effects of disease and trauma in these processes as they relate to oral and maxillofacial surgery.</i>
	Oral mucosa and connective tissues of the mouth:
	3 Metabolism and functions of the oral mucosa and connective tissues of the oral cavity
	Calcium/phosphorus metabolism and calcification:
	3 Mineral metabolism
	3 Chemistry of calcium and phosphates
	3 Composition of bone and teeth
	3 Metabolism of bone and teeth
	3 Mechanisms of calcification
	Bone growth and remodelling:
	3 Mechanisms of osteogenesis and ossification
	3 Bone remodelling
	3 Mechanisms of bone growth
	3 Post-natal remodelling of the facial skeleton
	3 Effects of soft tissues on skull growth

Mechanisms of tooth eruption:

- 3 Normal tooth eruption and theories
- 3 Abnormal tooth eruption
- 3 Factors affecting tooth eruption

#### Salivary glands and saliva

- 3 Composition and functions of saliva
- 3 Stimulus and mechanisms of salivation
- 3 Importance of saliva in relation to oral disease

#### Immunology and defence mechanisms of the mouth:

- 3 Mechanical, chemical and hormonal factors protecting the oral cavity
- 3 Immunological protective mechanisms

#### Mastication and deglutition:

- 3 Properties and functions of the muscles of mastication
- 3 Co-ordination of the masticatory system
- 3 Taste and olfaction
- 3 Phases of deglutition
- 3 Control of deglutition
- 3 Dysphagia

#### Effects of dietary deficiencies and hormonal imbalances:

- 3 Physiological effects of dietary deficiency
- 3 Physiological effects of hormonal imbalance
- 3 Nutrition and malnutrition

#### Age changes in the oral structures:

- 3 Physiological effects of aging within the head and neck

#### Physiological responses to surgical treatment:

- 3 Physiology of stress
- 3 The anxious patient
- 3 Vasovagal reactions, hyperventilation and arrhythmias

#### Wound healing:

- 3 Wounding agents and sequelae
- 3 The inflammatory response
- 3 Healing of oral and other wounds
- 3 Abnormal healing

#### Oro-facial pain:

- 3 Sensory innervation of the head and neck
- 3 Transmission of trigeminal impulses within the central nervous system.
- 3 Pain perception



	3 Referred pain
	3 Theories of pain
	3 Physiological effects of pain
<b>Clinical Skills</b>	Application of this knowledge appropriately in the clinical setting
<b>Technical Skills and Procedures</b>	3 ability to undertake a comprehensive examination of the cranial nerves
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Initial</a> section for these skills

<b>Topic</b>	<b>Surgical Pathology (and Genetics)</b>
<b>Category</b>	Basic Science Knowledge
<b>Sub-category:</b>	None
<b>Objective</b>	<i>To understand pathological processes as they present in the common oral and maxillofacial diseases/conditions/illnesses.</i> Biopsy principles and techniques:  3 Rationale and techniques for biopsy (FNA, core biopsies, incisional and excisional) 3 Preparation and preservation of pathological specimens 3 Use of the pathology laboratory  Inflammatory reactive and infectious diseases:  3 The acute inflammatory response 3 The chronic inflammatory response 3 Principles of wound healing 3 Abnormal wound healing 3 Healing in specialized tissues  Immune-based diseases:  3 Pathological basis for the immune response 3 Auto-immune disease  Conditions of developmental disturbance:  3 Disorders of metabolism 3 Disorders of nutrition  Hyperplasias, hamartomas, and neoplasms of soft tissues and bones:  3 Disorders of growth and development 3 Differential diagnosis 3 Treatment modalities (if required)  Benign epithelial tumours of the mucosa and skin:  3 Pathology of disorders of growth 3 Differential diagnoses 3 Treatment modalities
<b>Knowledge</b>	

Potentially malignant and malignant epithelial tumours of the mucosa and skin:

- 2 Mechanisms of tumour initiation and growth
- 2 Malignant transformation
- 2 Mechanisms of metastasis
- 2 Tumour staging
- 2 Treatment modalities

Effects of radiation and osteoradionecrosis:

- 2 The effects of ionizing radiation

Benign soft tissue tumours of mesenchymal origin:

- 3 Pathology of disorders of growth
- 3 Differential diagnoses
- 3 Treatment modalities

Malignant soft tissue tumours of mesenchymal origin:

- 2 Mechanisms of tumour initiation and growth
- 2 Malignant transformation
- 2 Mechanisms of metastasis
- 2 Tumour staging
- 2 Treatment modalities

Non-neoplastic salivary gland diseases:

- 2 Pathology of salivary gland disease
- 2 Differential diagnosis
- 2 Treatment modalities

Salivary gland neoplasms:

- 2 Mechanisms of tumour initiation and growth
- 2 Malignant transformation
- 2 Mechanisms of metastasis
- 2 Tumour staging
- 2 Treatment modalities

Odontogenic and non-odontogenic cysts:

- 3 Pathology of non-neoplastic conditions involving odontogenic tissues
- 3 Differential diagnosis
- 3 Treatment options

Odontogenic tumours, hamartomas and neoplasms:

- 3 Pathology of neoplastic conditions involving odontogenic tissues
- 3 Differential diagnosis
- 3 Treatment options

Pigmented lesions of the skin and mucosa:

- 3 Pathological basis of pigmentation
- 3 Normal and abnormal pigmentation
- 3 Diagnostic procedures
- 3 Treatment options

Fibro osseous diseases and systemic diseases affecting bone:

- 3 Pathology of disorders of growth
- 3 Differential diagnoses
- 3 Treatment modalities

Benign and malignant neoplasms of bone:

- 3 Pathology of disorders of growth
- 3 Calcium metabolism
- 3 Differential diagnoses
- 3 Mechanisms of tumour initiation and growth
- 3 Mechanisms of metastasis
- 3 Tumour staging
- 3 Treatment modalities

Neoplasms of the immune system:

- 3 Pathology of the immune response
- 3 Immunity to infection
- 3 Hypersensitivity, tissue grafts and autoimmunity

Trauma:

- 3 Haemorrhage and shock
- 3 Oedema
- 3 Fever and hypothermia

Oncology:

- 2 Mechanisms of tumour initiation and growth
- 3 Role of environmental factors
- 3 Role of genetic factors
- 3 Tumour staging
- 3 Treatment strategies
- 2 Mechanisms of chemotherapy and radiotherapy

Genetics:

- 3 Genetics in normal development
- 3 Role of genetics in pathological processes

**Clinical Skills** 2 Application of this knowledge appropriately in the clinical setting

**Technical Skills  
and Procedures** N/A

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

<b>Topic</b>	<b>Clinical pharmacology</b>
<b>Category</b>	Basic Science Knowledge
<b>Sub-category:</b>	None
<b>Objective</b>	<p><i>To understand the uses and effects of therapeutic agents used in the treatment of conditions presenting to the oral and maxillofacial surgeon.</i></p> <p>Adverse reactions to drugs:</p> <ul style="list-style-type: none"> <li>3 Incidence of adverse drug reactions</li> <li>3 Classification of adverse drug reactions</li> <li>3 Long-term and delayed effects causing adverse reactions</li> <li>3 Surveillance methods</li> </ul> <p>Practical drug prescribing:</p> <ul style="list-style-type: none"> <li>3 Principles of prescribing</li> <li>3 Prescription writing</li> <li>3 Drug information</li> </ul> <p>Drug interactions:</p> <ul style="list-style-type: none"> <li>3 Incidence of drug interactions</li> <li>3 Pharmaceutical interactions</li> <li>3 Pharmacokinetic interactions</li> <li>3 Pharmacodynamic interactions</li> </ul> <p>Drug therapy in the young, the elderly, and in pregnancy:</p> <ul style="list-style-type: none"> <li>3 Differences in drug therapy <ul style="list-style-type: none"> <li>(a) in the young</li> <li>(b) in the elderly</li> <li>(c) in pregnancy</li> </ul> </li> </ul> <p>Patient compliance:</p> <ul style="list-style-type: none"> <li>3 Factors affecting compliance</li> <li>3 Measuring compliance</li> <li>3 Improving compliance</li> </ul> <p>Placebos:</p> <ul style="list-style-type: none"> <li>3 The placebo effect</li> <li>3 Mode of action of placebos</li> <li>3 Adverse effects of placebos</li> </ul> <p>Drug development and clinical trials:</p> <ul style="list-style-type: none"> <li>3 The pharmaceutical industry and the regulatory authorities</li> <li>3 Definition of a clinical trial</li> <li>3 The conduct of a clinical trial</li> <li>3 Ethics of clinical trials</li> </ul> <p>Drug therapy of systemic disease relevant to maxillofacial surgical practice:</p>
<b>Knowledge</b>	

3 Knowledge of specific agents, their effects and mechanisms of action

Relief of pain and anaesthesia:

3 Anatomical and neuropharmacological mechanisms underlying pain sensation

3 Mechanism of action of analgesics

3 Practical use of analgesics

3 Treatment of intractable pain (e.g. in terminal care)

3 Local anaesthetics

3 Analgesic effects of conscious sedation

3 General anaesthetics

Drug dependence and abuse:

3 Factors predisposing to drug dependence

3 Pharmacology of specific drugs of dependence

3 Treatment of drug dependence

Principles of cancer chemotherapy and immunosuppression:

2 Actions of chemotherapeutic agents

2 Pre-treatment evaluation

2 Combination chemotherapy

2 Adverse effects of drugs used in cancer chemotherapy

2 Practical use of cytotoxic agents

**Clinical Skills** 3 Application of this knowledge appropriately in the clinical setting

**Technical Skills  
and Procedures** N/A

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

**Topic** **Clinical Microbiology**

**Category** Basic Science Knowledge

**Sub-category:** None

**Objective** *To understand the microbiology of common infections/conditions which affect the head and neck.*

Classification and pathogenicity of micro-organisms:

3 Classification of micro-organisms

3 Pathogenesis

3 Factors affecting the virulence and spread of micro-organisms

**Knowledge** Use of the microbiology laboratory:

3 Collection of clinically-relevant specimens

3 Transport of specimens

3 Laboratory procedures for microbiological diagnosis

Antimicrobial chemotherapy:

- 3 Mode of action of antimicrobial agents
- 3 Spectrum of activity
- 3 Principles of clinical use
- 3 Causes of treatment failure
- 3 Antibiotic resistance
- 3 Antibiotic prophylaxis

Pyrexia of unknown origin(PUO):

- 3 Definition and causes of PUO
- 3 Investigation of PUO

The immuno compromised patient:

- 3 Causes and related conditions
- 3 Specific precautions and management protocols

Septicaemia:

- 3 Clinical features and causative organisms
- 3 Investigation
- 3 Antimicrobial treatment

Opportunistic and fungal infections:

- 3 Opportunistic organisms and conditions
- 3 Diagnosis
- 3 Treatment
- 3 Antifungal agents

Specific infections of the head and neck:

- 2 Odontogenic infections
- 2 Infections of the paranasal sinuses
- 2 Osteomyelitis
- 2 Tissue space infections
- 2 Spreading infections
- 2 Skin infections
- 2 Necrotizing fasciitis

Infective endocarditis:

- 3 Incidence, clinical features and predisposing factors
- 3 Pathogenesis and causative organisms
- 3 Investigation
- 3 Treatment/prophylaxis

Hospital acquired infection:

- 3 Types of hospital-acquired infection
- 3 Surgical wound infections
- 3 Infection in intensive care units

- 3 Infections of risk to hospital staff
- 3 Isolation procedures

Principles of disinfection:

- 3 General considerations
- 3 Disinfection methods

Sterilisation:

- 3 General considerations
- 3 Sterilisation methods

**Clinical Skills** 3 Application of this knowledge appropriately in the clinical setting

**Technical Skills and Procedures** N/A

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

<b>Topic</b>	<b>Impacted Wisdom Tooth</b>
<b>Category</b>	Dentoalveolar Pathology
<b>Sub-category:</b>	None
<b>Objective</b>	<p><i>To be able to assess a patient presenting either acutely or in the out-patient clinic</i></p> <p><i>To be able to formulate a differential diagnosis and an investigation and management plan</i></p> <p><i>To be able to treat the patient appropriately up to and including operative intervention if appropriate</i></p> <p><i>To be able to communicate the above information at the required level to patients/carers/other team members</i></p>
<b>Knowledge</b>	<ul style="list-style-type: none"> <li>3 Signs and symptoms</li> <li>3 Differential diagnosis</li> <li>3 Investigations and radiographic interpretation</li> <li>3 Methods of medical management including treatment of inflammation/infection</li> <li>3 Pharmacology and therapeutics of analgesia</li> <li>3 Understanding of NICE/SIGN guidelines</li> </ul>
<b>Clinical Skills</b>	<ul style="list-style-type: none"> <li>3 Anatomy of mouth, jaws, teeth and supporting structures</li> <li>3 Anatomy of trigeminal nerve and infiltration / nerve block anaesthesia</li> <li>3 Indications including NICE/SIGN guidelines</li> <li>3 Potential complications</li> <li>3 Pharmacology and therapeutics of post-operative analgesia</li> </ul>
<b>Technical Skills and Procedures</b>	<ul style="list-style-type: none"> <li>3 Ability to formulate treatment plan</li> <li>3 Treat/drain infection and/or remove tooth</li> <li>3 Institute aftercare and review</li> </ul> <p>Surgical extraction of unerupted/impacted teeth and roots:</p> <ul style="list-style-type: none"> <li>3 Local anaesthetic and sedation techniques</li> <li>3 Carry out of steps of procedure safely and correctly</li> </ul>

- 3 Treat/drain infection and/or remove tooth
- 3 Techniques of bone removal and tooth division
- 3 Intra-oral suturing techniques

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

<b>Topic</b>	<b>Dental Extractions</b>
<b>Category</b>	Dentoalveolar Pathology
<b>Sub-category:</b>	None
<b>Objective</b>	<p><i>To be able to assess a patient presenting either acutely or in the out-patient clinic</i></p> <p><i>To be able to formulate a differential diagnosis and an investigation and management plan</i></p> <p><i>To be able to treat the patient appropriately up to and including operative intervention if appropriate</i></p> <p><i>To be able to communicate the above information at the required level to patients/carers/other team members</i></p>
<b>Knowledge</b>	<ul style="list-style-type: none"> <li>3 Signs and symptoms</li> <li>3 Differential diagnosis</li> <li>3 Investigations and radiographic interpretation</li> <li>3 Methods of medical management including treatment of inflammation/infection</li> <li>3 Pharmacology and therapeutics of analgesia</li> </ul>
<b>Clinical Skills</b>	<ul style="list-style-type: none"> <li>3 Anatomy of mouth, jaws, teeth and supporting structures</li> <li>3 Anatomy of trigeminal nerve and infiltration / nerve block anaesthesia</li> <li>3 Potential complications</li> <li>3 Pharmacology and therapeutics of post-operative analgesia</li> </ul>
<b>Technical Skills and Procedures</b>	<ul style="list-style-type: none"> <li>3 Ability to formulate treatment plan</li> <li>3 Liaison with restorative dentist</li> <li>3 Treat/drain infection and/or remove tooth</li> <li>3 Safe and appropriate use of instruments</li> <li>3 Institute aftercare and review</li> </ul> <p>Surgical extraction of unerupted/impacted teeth and roots:</p>
<b>Professional Skills</b>	<ul style="list-style-type: none"> <li>3 Local anaesthetic and sedation techniques</li> <li>3 Carry out of steps of procedure safely and correctly</li> <li>3 Techniques of bone removal and tooth division</li> <li>3 Intra-oral suturing techniques</li> </ul>

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

<b>Topic</b>	<b>Unerupted tooth</b>
<b>Category</b>	Dentoalveolar Pathology
<b>Sub-category:</b>	None
<b>Objective</b>	<p><i>To be able to assess a patient presenting either acutely or in the out-patient clinic</i></p> <p><i>To be able to formulate a differential diagnosis and an investigation and management plan</i></p>



*To be able to treat the patient appropriately up to and including operative intervention if appropriate*

*To be able to communicate the above information at the required level to patients/carers/other team members*

- 3 Signs and symptoms
- 3 Differential diagnosis
- 3 Investigations and radiographic interpretation
- 3 Methods of medical management including treatment of inflammation/infection
- 3 Pharmacology and therapeutics of analgesia

**Knowledge**

- 3 Anatomy of mouth, jaws, teeth and supporting structures
- 3 Anatomy of trigeminal nerve and infiltration / nerve block anaesthesia
- 3 Potential complications
- 3 Pharmacology and therapeutics of post-operative analgesia

- 3 Physiology of sinus function
- 3 Pathology of inflammatory sinus disease, including its potential to mimic dental pain
- 3 Relevance of other related conditions e.g atypical facial pain and TMJ pathologies

**Clinical Skills**

- 3 Indications and techniques
- 3 Ability to formulate treatment plan
- 3 Treat/drain infection and/or remove tooth
- 3 Institute aftercare and review
- Surgical exposure or transplantation of unerupted tooth:

**Technical Skills and Procedures**

- 3 Local anaesthetic and sedation techniques
- 3 Carry out of steps of procedure safely and correctly
- 3 Techniques of exposure and bone removal
- 3 Packing and/or bonding of tooth
- 3 Techniques of tooth splintage
- 3 Intra-oral suturing techniques

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

**Topic** Oro-antral communication/root in Maxillary antrum

**Category** Dentoalveolar Pathology

**Sub-category:** None

*To be able to assess a patient presenting either acutely or in the out-patient clinic*

*To be able to formulate a differential diagnosis and an investigation and management plan*

**Objective**

*To be able to treat the patient appropriately up to and including operative intervention if appropriate*

*To be able to communicate the above information at the required level to patients/carers/other team members*

**Knowledge**

- 3 Signs and symptoms

- 3 Differential diagnosis
- 3 Investigations and radiographic interpretation
- 3 Methods of medical management including treatment of inflammation/infection
- 3 Relevance of endoscopic examination of maxillary antrum
  
- 3 Pharmacology and therapeutics of analgesia
  
- 3 Anatomy of mouth, jaws, teeth and supporting structures
- 3 Anatomy of trigeminal nerve and infiltration / nerve block anaesthesia
- 3 Potential complications
- 3 Pharmacology and therapeutics of post-operative analgesia
  
- 3 Physiology of sinus function
- 3 Pathology of inflammatory sinus disease

- Clinical Skills**
- 3 Indications and techniques
  - 2 Ability to formulate treatment plan
  - 2 Treat/drain infection and/or remove tooth
  - 2 Institute aftercare and review
- Closure of oro-antral communication:

- Technical Skills and Procedures**
- 3 Local anaesthetic and sedation techniques
  - 2 Carry out of steps of procedure safely and correctly
  - 2 Techniques of local flap closure
  - 2 Techniques of antral exploration / lavage
  - 2 Antrostomy
  - 3 Intra-oral suturing techniques

- Removal of root retained root or dental fragment from maxillary antrum
- 2 Endoscopic examination of maxillary antrum
- 3 Local anaesthetic and sedation techniques
- 3 Carry out of steps of procedure safely and correctly
- 2 Techniques of local flap closure
- 2 Techniques of antral exploration / lavage
- 2 Antrostomy
- 3 Intra-oral suturing techniques

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

- Topic** **Prominent lingual / labial frenum**
- Category** Dentoalveolar Pathology
- Sub-category:** None
- Objective** *To be able to assess a patient presenting in the out-patient clinic*  
*To be able to formulate a differential diagnosis and an investigation and management plan*  
*To be able to treat the patient appropriately up to and including operative intervention if appropriate*  
*To be able to communicate the above information at the required level to patients/carers/other team members*

	3 Signs and symptoms
	3 Differential diagnosis
	3 Investigations and radiographic interpretation
	3 Pharmacology and therapeutics of analgesia
<b>Knowledge</b>	3 Anatomy of mouth, jaws, teeth and supporting structures
	3 Anatomy of trigeminal nerve and infiltration / nerve block anaesthesia
	3 Potential complications
	3 Pharmacology and therapeutics of post-operative analgesia
	3 Indications and techniques
	3 Ability to formulate treatment plan
	N/A Treat/drain infection and/or remove tooth
<b>Clinical Skills</b>	3 Institute aftercare and review
	3 Ability to discriminate between those who need surgery and those who don't and communicate this effectively
<b>Technical Skills and Procedures</b>	3 Local anaesthetic and sedation techniques
	3 Carry out of steps of procedure safely and correctly
	3 Intra-oral suturing techniques
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour</a> » <a href="#">Initial</a> section for these skills

<b>Topic</b>	<b>Jaw Cysts</b>
<b>Category</b>	Dentoalveolar Pathology
<b>Sub-category:</b>	Dento-alveolar abscess/infection
<b>Objective</b>	<i>To be able to assess a patient presenting either acutely or in the out-patient clinic</i>
	<i>To be able to formulate a differential diagnosis and an investigation and management plan</i>
	<i>To be able to treat the patient appropriately up to and including operative intervention if appropriate</i>
	<i>To be able to communicate the above information at the required level to patients/carers/other team members</i>
<b>Knowledge</b>	3 Signs and symptoms
	3 Differential diagnosis
	3 Investigations and radiographic interpretation
	3 Methods of medical management
	3 Cystic lesions of the jaw
	3 Anatomy of mouth, jaws, teeth and supporting structures
	3 Anatomy of trigeminal nerve and infiltration / nerve block anaesthesia
	3 Pathogenesis of chronic infection and cystic lesions
	3 Potential complications including management of compromised airway
	3 Pharmacology and therapeutics of post-operative analgesia
	2 Ability to formulate treatment plan
	3 Relevance of early involvement of microbiologist
	3 Treat/drain infection
<b>Clinical Skills</b>	3 Ability to manage compromised airway (surgical airway)
	3 Recognition of systemic sepsis (sepsis syndrome)
	3 Recognition of infection as an early indicator of immuno suppression e.g. diabetes, immuno compromised states
	3 Institute aftercare and review

	Apical surgery excision of jaw cyst:
<b>Technical Skills and Procedures</b>	3 Local anaesthetic and sedation techniques 3 Carry out of steps of procedure safely and correctly 3 Techniques of exposure, bone removal and enucleation of pathology 3 Intra-oral suturing techniques
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Initial</a> section for these skills

<b>Topic</b>	<b>Benign oral soft tissue/hard tissue lesion</b>
<b>Category</b>	Dentoalveolar Pathology
<b>Sub-category:</b>	Dento-alveolar abscess/infection
<b>Objective</b>	<i>To be able to assess a patient presenting either acutely or in the out-patient clinic</i> <i>To be able to formulate a differential diagnosis and an investigation and management plan</i> <i>To be able to treat the patient appropriately up to and including operative intervention if appropriate</i> <i>To be able to communicate the above information at the required level to patients/carers/other team members</i>
<b>Knowledge</b>	3 Signs and symptoms 3 Differential diagnosis 3 Investigations and radiographic interpretation 3 Methods of medical management 3 Common oral mucosal & bony pathologies 3 Anatomy of mouth, jaws, teeth and supporting structures 3 Anatomy of trigeminal nerve and infiltration / nerve block anaesthesia 3 Pathogenesis of chronic infection and cystic lesions 2 Potential complications including management of compromised airway 3 Pharmacology and therapeutics of post-operative analgesia 3 Ability to formulate treatment plan 3 Relevance of early involvement of microbiologist 3 Treat/drain infection
<b>Clinical Skills</b>	2 Ability to manage compromised airway (surgical airway) 2 Recognition of systemic sepsis (sepsis syndrome) 3 Recognition of infection as an early indicator of immuno suppression e.g. diabetes, immuno compromised states 2 Institute aftercare and review
<b>Technical Skills and Procedures</b>	Excision / biopsy of benign oral soft tissue / hard tissue lesion:  3 Local anaesthetic and sedation techniques 3 Carry out of steps of procedure safely and correctly 3 Techniques of incisional / excisional biopsy 3 Control of haemorrhage 3 Techniques of local flap closure 3 Intra-oral suturing techniques
	Benign epithelial tumours of the mucosa and skin:  3 Pathology of disorders of growth 3 Differential diagnoses

### 3 Treatment modalities

Potentially malignant and malignant epithelial tumours of the mucosa and skin:

- 2 Mechanisms of tumour initiation and growth
- 2 Malignant transformation
- 2 Mechanisms of metastasis
- 2 Tumour staging
- 2 Treatment modalities

Effects of radiation and osteoradionecrosis:

- 2 The effects of ionizing radiation

Benign soft tissue tumours of mesenchymal origin:

- 3 Pathology of disorders of growth
- 3 Differential diagnoses
- 3 Treatment modalities

Malignant soft tissue tumours of mesenchymal origin:

- 2 Mechanisms of tumour initiation and growth
- 2 Malignant transformation
- 2 Mechanisms of metastasis
- 2 Tumour staging
- 2 Treatment modalities

Non-neoplastic salivary gland diseases:

- 2 Pathology of salivary gland disease
- 2 Differential diagnosis
- 2 Treatment modalities

Salivary gland neoplasms:

- 2 Mechanisms of tumour initiation and growth
- 2 Malignant transformation
- 2 Mechanisms of metastasis
- 2 Tumour staging
- 2 Treatment modalities

Odontogenic and non-odontogenic cysts:

- 3 Pathology of non-neoplastic conditions involving odontogenic tissues
- 3 Differential diagnosis
- 3 Treatment options

Odontogenic tumours, hamartomas and neoplasms:

- 3 Pathology of neoplastic conditions involving odontogenic tissues
- 3 Differential diagnosis
- 3 Treatment options

Pigmented lesions of the skin and mucosa:

- 3 Pathological basis of pigmentation
- 3 Normal and abnormal pigmentation
- 3 Diagnostic procedures
- 3 Treatment options

Fibro osseous diseases and systemic diseases affecting bone:

- 3 Pathology of disorders of growth
- 3 Differential diagnoses
- 3 Treatment modalities

Benign and malignant neoplasms of bone:

- 3 Pathology of disorders of growth
- 3 Calcium metabolism
- 3 Differential diagnoses
- 3 Mechanisms of tumour initiation and growth
- 3 Mechanisms of metastasis
- 3 Tumour staging
- 3 Treatment modalities

Neoplasms of the immune system:

- 3 Pathology of the immune response
- 3 Immunity to infection
- 3 Hypersensitivity, tissue grafts and autoimmunity

Trauma:

- 3 Haemorrhage and shock
- 3 Oedema
- 3 Fever and hypothermia

Oncology:

- 2 Mechanisms of tumour initiation and growth
- 3 Role of environmental factors
- 3 Role of genetic factors
- 3 Tumour staging
- 3 Treatment strategies
- 2 Mechanisms of chemotherapy and radiotherapy

Genetics:

- 3 Genetics in normal development
- 3 Role of genetics in pathological processes

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

<b>Category</b>	Dentoalveolar Pathology
<b>Sub-category:</b>	Dento-alveolar abscess/infection
	<i>To be able to assess a patient presenting either acutely or in the out-patient clinic</i>
	<i>To be able to formulate a differential diagnosis and an investigation and management plan</i>
<b>Objective</b>	<i>To be able to treat the patient appropriately up to and including operative intervention if appropriate</i>
	<i>To be able to communicate the above information at the required level to patients/carers/other team members</i>
	3 Signs and symptoms
	3 Differential diagnosis
	3 Investigations and radiographic interpretation
	3 Methods of medical management
<b>Knowledge</b>	3 Anatomy of mouth, jaws, teeth and supporting structures
	3 Anatomy of trigeminal nerve and infiltration / nerve block anaesthesia
	3 Pathogenesis of chronic infection and cystic lesions
	3 Potential complications including management of compromised airway
	3 Pharmacology and therapeutics of post-operative analgesia
	3 Ability to formulate treatment plan
	3 Relevance of early involvement of microbiologist
	3 Treat/drain infection
<b>Clinical Skills</b>	2 Ability to manage compromised airway (surgical airway)
	2 Recognition of systemic sepsis (sepsis syndrome)
	3 Recognition of infection as an early indicator of immuno suppression e.g. diabetes, immuno compromised states
	2 Institute aftercare and review
	Apical surgery
	excision of jaw cyst:
<b>Technical Skills and Procedures</b>	3 Local anaesthetic and sedation techniques
	3 Carry out of steps of procedure safely and correctly
	3 Techniques of exposure, bone removal and enucleation of pathology
	3 Intra-oral suturing techniques
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Initial</a> section for these skills

<b>Topic</b>	<b>Oral ulceration</b>
<b>Category</b>	Oral mucosal lesions
<b>Sub-category:</b>	None
	<i>To be able to assess an patient presenting with a mucosal lesion either acutely or in the out-patient clinic</i>
	<i>To be able to formulate a differential diagnosis and an investigation and management plan</i>
<b>Objective</b>	<i>To be able to treat the patient appropriately up to and including operative intervention if appropriate</i>
	<i>To be able to communicate the above information at the required level to patients/carers/other team members</i>
<b>Knowledge</b>	3 Aetiological factors and differential diagnosis
	3 Investigations

	3 Possible relationship to systemic disease
	3 Relevant pharmacology and therapeutics
	3 Signs of malignant disease
	3 Examination of the oral mucosa
	3 Biopsy/cytology techniques
<b>Clinical Skills</b>	3 Ability interpret results and formulate treatment plan
	3 Local anaesthetic and sedation techniques
	3 Carry out of steps of procedure safely and correctly including harvesting pathologically appropriate specimen
<b>Technical Skills and Procedures</b>	3 Intra-oral suturing techniques
	3 Ability to discriminate between those who need surgery and those who don't and communicate this effectively
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Initial</a> section for these skills

<b>Topic</b>	<b>Leukoplakia</b>
<b>Category</b>	Oral mucosal lesions
<b>Sub-category:</b>	None
	<i>To be able to assess an patient presenting with a mucosal lesion either acutely or in the out-patient clinic</i>
	<i>To be able to formulate a differential diagnosis and an investigation and management plan</i>
<b>Objective</b>	<i>To be able to treat the patient appropriately up to and including operative intervention if appropriate</i>
	<i>To be able to communicate the above information at the required level to patients/carers/other team members</i>
	3 Aetiological factors and differential diagnosis
	3 Investigations
<b>Knowledge</b>	3 Possible relationship to systemic disease
	3 Relevant pharmacology and therapeutics
	3 Signs of malignant disease
	3 Examination of the oral mucosa
<b>Clinical Skills</b>	3 Biopsy techniques
	3 Ability to interpret results and formulate treatment plan
	3 Local anaesthetic and sedation techniques
	3 Carry out of steps of procedure safely and correctly including harvesting pathologically appropriate specimen
<b>Technical Skills and Procedures</b>	3 Intra-oral suturing techniques
	3 Ability to discriminate between those who need surgery and those who don't and communicate this effectively
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Initial</a> section for these skills

<b>Topic</b>	<b>Infections of the Head and Neck</b>
<b>Category</b>	Infections of the Head and Neck
<b>Sub-category:</b>	None
<b>Objective</b>	<i>To be able to assess a patient presenting with infections of the head and neck either acutely or in the out-patient clinic</i>



*To be able to formulate a differential diagnosis and an investigation and management plan*

*To be able to treat the patient appropriately up to and including operative intervention if appropriate*

*To be able to communicate the above information at the required level to patients/carers/other team members*

- 3 Causes of swelling of head and neck
- 3 Differential diagnosis
- 3 Investigations
- 3 Methods of medical and principles surgical management

- 4 Head and neck anatomy
- 4 Head and neck pathology
- 4 Awareness of appropriateness of procedure and alternatives
- 4 Potential complications
- 3 Awareness of relevance of immunocompromised state
- 4 Anatomy of fascial spaces of head and neck
- 4 Microbiology of head and neck infection
- 4 Anatomy and physiology of the upper aerodigestive airway

## **Knowledge**

- 3 Anatomy of lymphatic drainage and vital structures
- 3 Differential diagnosis of enlarged neck nodes
- 3 Relevant investigations
- 3 Understanding of microbiology of head and neck infections
- 3 Awareness of issues around blood borne infections

- 3 Anatomy of larynx, trachea and related structures
- 3 Techniques of non-surgical airway management
- 3 Physiology of respiration
- 3 Upper airway pathology
- 2 Techniques of surgical airway management
- 3 Local anaesthesia and analgesia techniques
- 3 Ability to take and interpret a thorough history
- 3 Clinical examination of the head, neck and salivary glands
- 3 FNAC technique
- 2 Treatment of acute infected swelling
- 2 Drainage of neck abscess

## **Clinical Skills**

Recognition of infections specific to the head and neck:

- 3 Odontogenic infection
- 3 Infections of the paranasal sinuses
- 2 Osteomyelitis
- 2 Fascial space infections
- 2 Spreading infections
- 2 Necrotising fasciitis

- 3 Prevention of nosocomial infection

Fine needle aspiration of neck mass:

## **Technical Skills and Procedures**

- 3 Carry out of steps of procedure safely and correctly
- 3 Assemble equipment / precautions
- 3 Localisation of mass and aspiration
- 3 Prepare and confirm adequacy of specimen

Drainage of tissue space infection:

- 3 Appropriate aseptic preparation
- 2 Exposure and exploration of tissue space(s)
- 3 Collection of samples
- 2 Securing appropriate drains and dressings

Surgical access to airway (Tracheostomy / cricothyroidotomy):

- 3 Identify relevant instruments and support staff
- 3 Appropriate aseptic preparation
- 2 Exposure and access to airway
- 2 Control of haemorrhage
- 2 Placement and securing of tube in airway
- 2 Tracheostomy care

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

<b>Topic</b>	<b>Facial Laceration(s)</b>
<b>Category</b>	Cranio Maxillofacial Trauma
<b>Sub-category:</b>	None
<b>Objective</b>	<i>To be able to fully assess an injured patient presenting either acutely or in the out-patient clinic</i> <i>To be able to formulate a differential diagnosis and an investigation and management plan</i> <i>To be able to treat the patient appropriately up to and including operative intervention if appropriate</i> <i>To be able to communicate the above information at the required level to patients/carers/other team members</i>
<b>Knowledge</b>	2 Aetiology of facial trauma 3 Principles of wound management and soft tissue repair 3 Prevention/treatment of infections
<b>Clinical Skills</b>	3 Anatomy of facial skin and underlying structures 3 Assessment of cranial nerve function 3 Anatomy of trigeminal nerve and infiltration / nerve block anaesthesia 3 Wound healing and wound care 3 Management/prevention of unfavourable scarring 2 General assessment of the traumatised patient 2 Assessment and examination of patient with facial laceration(s) 2 Ability to recognise involvement of other anatomical structures e.g. nerves, parotid duct 2 Ability to formulate a treatment plan and prioritise management 2 Repair of facial lacerations under local anaesthesia Repair of facial laceration(s):
<b>Technical Skills and Procedures</b>	3 Local anaesthetic and sedation techniques 3 Carry out of steps of procedure safely and correctly 3 Management of contaminated wound, thorough debridement 2 Management of a laceration involving key structures or tissue loss

- 2 Management of nerve/parotid duct injury
- 3 Soft tissue handling and suturing techniques

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

<b>Topic</b>	<b>Dental Trauma and dento-alveolar fractures</b>
<b>Category</b>	Cranio Maxillofacial Trauma
<b>Sub-category:</b>	Facial Fractures
<b>Objective</b>	<p><i>To be able to assess an injured patient presenting either acutely or in the out-patient clinic</i></p> <p><i>To be able to formulate a differential diagnosis and an investigation and management plan</i></p> <p><i>To be able to treat the patient appropriately up to and including operative intervention if appropriate</i></p> <p><i>To be able to communicate the above information at the required level to patients/carers/other team members</i></p> <ul style="list-style-type: none"> <li>3 Aetiology of facial trauma</li> <li>3 Priorities of management</li> <li>3 Assessment of airway and level of consciousness (Glasgow coma scale)</li> <li>3 Signs and symptoms of fractures of facial skeleton</li> <li>3 Eyes/ears assessment</li> <li>3 Investigations and radiographic interpretation</li> </ul>
<b>Knowledge</b>	<ul style="list-style-type: none"> <li>3 Anatomy of mouth, jaws, teeth and supporting structures</li> <li>3 Anatomy of trigeminal nerve and infiltration / nerve block anaesthesia</li> <li>3 Classification of dental trauma and dento-alveolar fractures</li> <li>3 Assessment of head injury and cranial nerve function</li> <li>3 Aetiology</li> <li>3 Interpretation of radiographs</li> <li>2 Potential complications</li> <li>3 Pharmacology and therapeutics of post-operative analgesia</li> </ul> <ul style="list-style-type: none"> <li>3 Anatomy of facial skeleton</li> <li>3 Physiology of nasal cavity</li> </ul> <ul style="list-style-type: none"> <li>3 Anatomy of scalp, facial skeleton, orbit and contents</li> <li>3 Anatomy of eyelids</li> <li>3 Classification of facial fractures</li> <li>3 Physiology of sight and oculomotor function</li> <li>3 Available techniques</li> </ul>
<b>Clinical Skills</b>	<ul style="list-style-type: none"> <li>3 Anatomy of facial skeleton, teeth and supporting structures</li> <li>3 Dental occlusion</li> <li>3 General assessment of the traumatised patient</li> <li>3 Assessment and examination of patient with facial trauma</li> <li>2 Airway management and emergency treatment of facial trauma</li> <li>2 Ability to formulate a treatment plan and prioritise management</li> <li>3 Pain control /prevention of infection</li> <li>3 infiltration / nerve block anaesthesia</li> </ul>
<b>Technical Skills and Procedures</b>	<ul style="list-style-type: none"> <li>3 Clinical examination of oral cavity, facial skeleton and cranial nerves</li> <li>3 Local anaesthetic and sedation techniques</li> </ul>

- 3 Carry out of steps of procedure safely and correctly
- 3 Techniques for removal of damaged teeth/retained roots
- 3 Techniques of preservation of damaged teeth, reduction and fixation
- 3 Intra-oral soft tissue handling and suturing techniques

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

<b>Topic</b>	<b>Nasal Fractures</b>
<b>Category</b>	Cranio Maxillofacial Trauma
<b>Sub-category:</b>	Facial Fractures
<b>Objective</b>	<p><i>To be able to assess an injured patient presenting either acutely or in the out-patient clinic</i></p> <p><i>To be able to formulate a differential diagnosis and an investigation and management plan</i></p> <p><i>To be able to treat the patient appropriately up to and including operative intervention if appropriate</i></p> <p><i>To be able to communicate the above information at the required level to patients/carers/other team members</i></p> <ul style="list-style-type: none"> <li>3 Aetiology of facial trauma</li> <li>3 Priorities of management</li> <li>3 Assessment of airway and level of consciousness (Glasgow coma scale)</li> <li>3 Signs and symptoms of fractures of facial skeleton</li> <li>3 Eyes/ears assessment</li> <li>3 Investigations and radiographic interpretation</li> </ul>
<b>Knowledge</b>	<ul style="list-style-type: none"> <li>3 Anatomy of mouth, jaws, teeth and supporting structures and relevance dental occlusion where appropriate</li> <li>3 Anatomy of trigeminal nerve and infiltration / nerve block anaesthesia</li> <li>3 Classification of dental trauma and dento-alveolar fractures</li> <li>3 Assessment of head injury and cranial nerve function</li> <li>3 Aetiology</li> <li>3 Interpretation of radiographs</li> <li>3 Potential complications</li> <li>3 Pharmacology and therapeutics of post-operative analgesia</li> </ul> <ul style="list-style-type: none"> <li>3 Anatomy of facial skeleton</li> <li>3 Physiology of nasal cavity</li> </ul> <ul style="list-style-type: none"> <li>3 Anatomy of scalp, facial skeleton, orbit and contents</li> <li>3 Anatomy of eyelids</li> <li>3 Classification of facial fractures</li> <li>3 Physiology of sight and oculomotor function</li> <li>3 Available techniques</li> </ul>
<b>Clinical Skills</b>	<ul style="list-style-type: none"> <li>3 General assessment of the traumatised patient</li> <li>3 Assessment and examination of patient with facial trauma</li> <li>3 Airway management and emergency treatment of facial trauma</li> <li>3 Ability to formulate a treatment plan and prioritise management</li> <li>3 Pain control /prevention of infection</li> <li>3 infiltration / nerve block anaesthesia</li> </ul>
<b>Technical Skills and Procedures</b>	<ul style="list-style-type: none"> <li>3 Clinical examination of facial skeleton and cranial nerves</li> <li>2 Carry out of steps of procedure safely and correctly</li> </ul>

- 2 Manipulation of nasal bones and septum
- 2 Management of epistaxis
- 2 Nasal packing and external splintage

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

<b>Topic</b>	<b>Fractured Zygoma</b>
<b>Category</b>	Cranio Maxillofacial Trauma
<b>Sub-category:</b>	Facial Fractures
<b>Objective</b>	<p><i>To be able to assess an injured patient presenting either acutely or in the out-patient clinic</i></p> <p><i>To be able to formulate a differential diagnosis and an investigation and management plan</i></p> <p><i>To be able to treat the patient appropriately up to and including operative intervention if appropriate</i></p> <p><i>To be able to communicate the above information at the required level to patients/carers/other team members</i></p>
<b>Knowledge</b>	<ul style="list-style-type: none"> <li>3 Aetiology of facial trauma</li> <li>3 Priorities of management</li> <li>3 Assessment of airway and level of consciousness (Glasgow coma scale)</li> <li>3 Signs and symptoms of fractures of facial skeleton</li> <li>3 Eyes/ears assessment</li> <li>3 Investigations and radiographic interpretation</li>   <li>3 Anatomy of mouth, jaws, teeth and supporting structures</li> <li>3 Anatomy of trigeminal nerve and infiltration / nerve block anaesthesia</li> <li>3 Classification of dental trauma and dento-alveolar fractures</li> <li>3 Assessment of head injury and cranial nerve function</li> <li>3 Aetiology</li> <li>3 Interpretation of radiographs</li> <li>3 Potential complications</li> <li>3 Pharmacology and therapeutics of post-operative analgesia</li>   <li>3 Anatomy of facial skeleton</li> <li>3 Physiology of nasal cavity</li>   <li>3 Anatomy of scalp, facial skeleton, orbit and contents</li> <li>3 Anatomy of eyelids</li> <li>3 Classification of facial fractures</li> <li>3 Physiology of sight and oculomotor function</li> <li>3 Available techniques</li>   <li>3 Anatomy of facial skeleton, teeth and supporting structures</li> <li>3 Dental occlusion</li> <li>3 General assessment of the traumatised patient</li> <li>3 Assessment and examination of patient with facial trauma</li> </ul>
<b>Clinical Skills</b>	<ul style="list-style-type: none"> <li>2 Airway management and emergency treatment of facial trauma</li> <li>2 Ability to formulate a treatment plan and prioritise management</li> <li>3 Pain control /prevention of infection</li> <li>3 infiltration / nerve block anaesthesia</li> </ul>
<b>Technical Skills</b>	<ul style="list-style-type: none"> <li>3 Clinical examination of facial skeleton and cranial nerves</li> </ul>

- and Procedures**
- 3 Basic ophthalmic and orthoptic assessment
  - 3 Carry out of steps of procedure safely and correctly
  - 2 Techniques of exposure of fracture site(s) and bone manipulation
  - 2 Plate handling skills
  - 3 Soft tissue handling and suturing techniques

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

<b>Topic</b>	<b>Fracture of mandible (excluding condyle)</b>
<b>Category</b>	Cranio Maxillofacial Trauma
<b>Sub-category:</b>	Facial Fractures
<b>Objective</b>	<p><i>To be able to assess an injured patient presenting either acutely or in the out-patient clinic</i></p> <p><i>To be able to formulate a differential diagnosis and an investigation and management plan</i></p> <p><i>To be able to treat the patient appropriately up to and including operative intervention if appropriate</i></p> <p><i>To be able to communicate the above information at the required level to patients/carers/other team members</i></p> <ul style="list-style-type: none"> <li>3 Aetiology of facial trauma</li> <li>3 Priorities of management</li> <li>3 Assessment of airway and level of consciousness (Glasgow coma scale)</li> <li>3 Signs and symptoms of fractures of facial skeleton</li> <li>3 Eyes/ears assessment</li> <li>3 Investigations and radiographic interpretation</li> </ul>
<b>Knowledge</b>	<ul style="list-style-type: none"> <li>3 Anatomy of mouth, jaws, teeth and supporting structures</li> <li>3 Anatomy of trigeminal nerve and infiltration / nerve block anaesthesia</li> <li>3 Classification of dental trauma and dento-alveolar fractures</li> <li>3 Assessment of head injury and cranial nerve function</li> <li>3 Aetiology</li> <li>3 Interpretation of radiographs</li> <li>3 Potential complications</li> <li>3 Pharmacology and therapeutics of post-operative analgesia</li> </ul> <ul style="list-style-type: none"> <li>3 Anatomy of facial skeleton</li> <li>3 Physiology of nasal cavity</li> </ul> <ul style="list-style-type: none"> <li>3 Anatomy of scalp, facial skeleton, orbit and contents</li> <li>3 Anatomy of eyelids</li> <li>3 Classification of facial fractures</li> <li>3 Physiology of sight and oculomotor function</li> <li>3 Available techniques</li> </ul>
<b>Clinical Skills</b>	<ul style="list-style-type: none"> <li>3 Anatomy of facial skeleton, teeth and supporting structures</li> <li>3 Dental occlusion</li> <li>3 General assessment of the traumatised patient</li> <li>3 Assessment and examination of patient with facial trauma</li> <li>2 Airway management and emergency treatment of facial trauma</li> <li>2 Ability to formulate a treatment plan and prioritise management</li> <li>3 Pain control /prevention of infection</li> <li>3 infiltration / nerve block anaesthesia</li> </ul>

<b>Technical Skills and Procedures</b>	3 Clinical examination of teeth, oral cavity, facial skeleton and cranial nerves
	3 Carry out of steps of procedure safely and correctly
	3 Techniques for removal of damaged teeth/retained roots
	2 Techniques of exposure of fracture site(s) and bone manipulation
	2 Plate handling skills
	3 Techniques of intermaxillary fixation
<b>Professional Skills</b>	3 Intra/extra-oral soft tissue handling and suturing techniques
	Please see the <a href="#">Professional Skills and Behaviour » Initial</a> section for these skills

<b>Topic</b>	<b>Fracture of mandibular condyle</b>
<b>Category</b>	Cranio Maxillofacial Trauma
<b>Sub-category:</b>	Facial Fractures
<b>Objective</b>	<i>To be able to identify a patient who has sustained this injury.</i>
	<i>To be alert for the potential for this injury to occur.</i>
	<i>To understand the principles of surgical management of this injury.</i>
<b>Knowledge</b>	<i>To be able to carry out these procedures safely and competently</i>
	3 Anatomy of facial skeleton, TM joint, parotid gland, facial nerve
	3 Classification of condylar fractures
	3 Assessment of head injury and cranial nerve function
	3 Dental occlusion
	3 Selection and interpretation of relevant imaging
	3 Understanding the benefits and indications of both open and closed treatments
	3 Potential complications long and short term
	3 Ability to correctly interpret physical signs and relevant imaging
	3 Clinical examination of teeth, oral cavity, facial skeleton and cranial nerves
<b>Clinical Skills</b>	3 Demonstrates clinical judgment appropriate to injury and patient needs
	Closed reduction:
	3 Carry out of steps of procedure safely and correctly
	3 Techniques for removal of damaged teeth / retained roots
	3 Techniques of intermaxillary fixation
	Open Reduction:
<b>Technical Skills and Procedures</b>	2 Carry out of steps of procedure safely and correctly
	3 Techniques for removal of damaged teeth / retained roots
	2 Techniques for exposure of fracture site and manipulation of condylar fragment
	2 Plate handling skills
	3 Techniques of intermaxillary fixation

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

<b>Topic</b>	<b>Fracture of maxilla</b>
<b>Category</b>	Cranio Maxillofacial Trauma
<b>Sub-category:</b>	Facial Fractures
<b>Objective</b>	<i>To be able to identify a patient who has sustained this injury.</i>
	<i>To be alert for the potential for this injury to occur.</i>

*To understand the principles of surgical management of this injury.  
To be able to carry out these procedures safely and competently*

<b>Knowledge</b>	3 Anatomy of facial skeleton 3 Classification of mid -facial fractures 4 Bone healing 3 Head injury and cranial nerve function 3 Dental occlusion 3 Available techniques e.g. open fixation, closed fixation techniques 3 Potential complications 3 Awareness of possibility of other associated fractures 3 Understanding the role of the maxillofacial technician
<b>Clinical Skills</b>	3 Systematic clinical examination of teeth, oral cavity, facial skeleton and cranial nerves 2 Interpretation of radiographs/scans 2 Assessment of head injury and cranial nerve function 2 Selection of treatment plan appropriate to the patients injury 3 An awareness of other factors affecting timing of surgery 3 Involving the maxillofacial technician in treatment planning
<b>Technical Skills and Procedures</b>	3 Carry out of steps of procedure safely and correctly 3 Techniques for removal of damaged teeth / retained roots 2 Techniques for exposure of fracture sites and reduction of fragments 2 Plate handling skills 3 Techniques of intermaxillary fixation 2 Techniques of cranio-maxillary fixation
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Initial</a> section for these skills

<b>Topic</b>	<b>Fracture of orbital floor</b>
<b>Category</b>	Cranio Maxillofacial Trauma
<b>Sub-category:</b>	Facial Fractures
<b>Objective</b>	<i>To be able to identify a patient who has sustained this injury. To be alert for the potential for this injury to occur. To understand the principles of surgical management of this injury. To be able to carry out these procedures safely and competently</i>
<b>Knowledge</b>	3 Anatomy and physiology of facial skeleton, orbit and contents 3 Awareness of head injury and cranial nerve function 3 Potential for complications involving sight and early involvement where appropriate of ophthalmologists/orthoptists 2 Surgical approaches to the orbit 2 Available techniques for orbital wall reconstruction 3 Potential complications
<b>Clinical Skills</b>	3 Clinical examination of eyes, facial skeleton and cranial nerves 3 Assessment of head injury and cranial nerve function 2 Choice of appropriate surgical technique 2 Interpretation of radiographs/scans
<b>Technical Skills and Procedures</b>	2 Carry out of steps of procedure safely and correctly 2 Assessment of eye function 2 Techniques for approach to orbital floor 2 Safe exposure of fracture sites and reduction of fragments 3 Bone grafting and plating skills



**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

<b>Topic</b>	<b>Fractures of Naso-orbito-ethmoid complex</b>
<b>Category</b>	Cranio Maxillofacial Trauma
<b>Sub-category:</b>	Facial Fractures
<b>Objective</b>	<i>Can perform complete task without direct assistance of scrubbed trainer.</i> 3 Anatomy of craniofacial skeleton, nasal bones, orbit and contents 3 Classification of facial fractures 3 Assessment of head injury and cranial nerve function 2 Interpretation of radiographs/scans 2 Available techniques
<b>Knowledge</b>	2 Potential complications  3 Anatomy of craniofacial skeleton, frontal bones, nasal bones, orbit and contents 3 Anatomy and physiology of frontal sinus drainage 3 Classification of frontal bone and facial fractures
<b>Clinical Skills</b>	3 Clinical examination of eyes, facial skeleton and cranial nerves 3 Carry out of steps of procedure safely and correctly Fractures of naso-orbito-ethmoid complex:  2 Techniques for approach to naso-ethmoid complex 2 Safe exposure of fracture sites and reduction of fragments 2 Bone grafting and plating skills
<b>Technical Skills and Procedures</b>	Fracture of frontal bones and craniofacial fractures:  2 Techniques for approach to frontal bone fractures 2 Safe exposure of fracture sites and reduction of fragments 2 Management of frontal sinus involvement 2 Bone grafting and plating skills

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

<b>Topic</b>	<b>Fracture of frontal bones and craniofacial fractures</b>
<b>Category</b>	Cranio Maxillofacial Trauma
<b>Sub-category:</b>	Facial Fractures
<b>Objective</b>	<i>Can perform complete task without direct assistance of scrubbed trainer.</i> 3 Anatomy of craniofacial skeleton, nasal bones, orbit and contents 3 Classification of facial fractures 3 Assessment of head injury and cranial nerve function 3 Interpretation of radiographs/scans 3 Available techniques
<b>Knowledge</b>	3 Potential complications  3 Anatomy of craniofacial skeleton, frontal bones, nasal bones, orbit and contents 3 Anatomy and physiology of frontal sinus drainage 3 Classification of frontal bone and facial fractures

<b>Clinical Skills</b>	3 Clinical examination of eyes, facial skeleton and cranial nerves 2 Carry out of steps of procedure safely and correctly Fractures of naso-orbito-ethmoid complex:  2 Techniques for approach to naso-ethmoid complex 2 Safe exposure of fracture sites and reduction of fragments 2 Bone grafting and plating skills
<b>Technical Skills and Procedures</b>	Fracture of frontal bones and craniofacial fractures:  2 Techniques for approach to frontal bone fractures 2 Safe exposure of fracture sites and reduction of fragments 2 Management of frontal sinus involvement 2 Bone grafting and plating skills
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Initial</a> section for these skills

<b>Topic</b>	<b>Oro-facial pain</b>
<b>Category</b>	Facial pain
<b>Sub-category:</b>	None
<b>Objective</b>	<i>To be able to assess a patient presenting with pain either acutely or in the out-patient clinic</i> <i>To be able to formulate a differential diagnosis and an investigation and management plan</i> <i>To be able to treat the patient appropriately up to and including operative intervention if appropriate</i> <i>To be able to communicate the above information at the required level to patients/carers/other team members</i>
<b>Knowledge</b>	3 History of presenting conditions 3 Signs and symptoms of common causes of oro-facial pain 3 Differential diagnosis 3 Investigations 3 Methods of medical and surgical management 3 Relevant pharmacology and therapeutics 3 Understanding of various techniques of nerve blockade 3 Understanding of relevant neurosurgical interventions
<b>Clinical Skills</b>	3 Ability to elicit and interpret an accurate pain history 3 Ability to examine 3 Ability to formulate treatment plan
<b>Technical Skills and Procedures</b>	3 Local anaesthetic techniques including nerve blocks 3 Cryoblockade, neurolysis and surgical nerve disruption
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Initial</a> section for these skills

<b>Topic</b>	<b>Temporomandibular joint disorders</b>
<b>Category</b>	Facial pain
<b>Sub-category:</b>	None
<b>Objective</b>	<i>To be able to assess a patient presenting with pain either acutely or in the out-patient clinic</i> <i>To be able to formulate a differential diagnosis and an investigation and</i>

*management plan*

*To be able to treat the patient appropriately up to and including operative intervention if appropriate*

*To be able to communicate the above information at the required level to patients/carers/other team members*

3 Signs and symptoms of TMJ dysfunction

3 Differential diagnosis

**Knowledge** 2 Investigations and radiographic interpretation

2 Methods of medical and surgical management

3 Relevant pharmacology and therapeutics

**Clinical Skills** 3 Ability to take a comprehensive pain history

3 Ability to examine TMJ and muscles of mastication

2 Ability to formulate and instigate treatment plan

2 Understanding of potential role of occlusion

2 Use of TENS devices

**Technical Skills** 2 Use of occlusal adjustment therapy

**and Procedures** 2 Arthrocentesis, arthrograms and arthroscopy

2 Open joint procedures e.g. disc plication, eminectomy

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

**Topic** Peri-operative care

**Category** Peri-operative care

**Sub-category:** None

**Objective** *To ensure the trainee has reached a level of competence in peri-operative care.*

*The following should apply to each of the procedures in the common conditions and operative skills category.*

Pre-operative Care

3 Indications for surgery

3 Required preparation for surgery to include necessary pre-operative investigations

3 Outcomes and complications of surgery

3 Knowledge of the admission process

Intra-operative care

**Knowledge** 3 Anatomy to be encountered during procedure

3 Steps involved in operative procedure

3 Knowledge of alternative procedures in case of encountering difficulties

Post-operative care

3 Potential complications of procedure

3 Outcomes of procedure

3 Likely post-operative progress from disease process and intervention

3 Physiological and pathological changes in condition as a result of intervention

**Clinical Skills** Pre-operative care

3 Synthesis of history and examination into operative management plan

3 Ability to explain procedure and outcomes to patient and parents at an appropriate level

3 To be able to take informed consent

- 3 To construct an appropriate theatre list
- 3 Where appropriate to communicate with relevant other members of the theatre team e.g. anaesthetist, scrub nurse

Intra-operative care

- 3 Appropriate use of assistance
- 3 Communication with other members of theatre team

Post-operative Care

- 3 Assessment of patient and physiological parameters
- 3 Appropriate intervention to deal with changing parameters
- 3 Communication skills for dealing with team members, patients and carers
- 3 Ability to prioritise interventions
- 3 Recognition of complications of procedure

**Technical Skills and Procedures**

- 3 Necessary hand-eye dexterity to complete procedure

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

<b>Topic</b>	<b>Neck swellings</b>
<b>Category</b>	Salivary gland / Neck swellings
<b>Sub-category:</b>	Neck Swellings
<b>Objective</b>	<p><i>To be able to assess a patient presenting with a neck swelling either acutely or in the out-patient clinic</i></p> <p><i>To be able to formulate a differential diagnosis and an investigation and management plan</i></p> <p><i>To be able to treat the patient appropriately up to and including operative intervention if appropriate</i></p> <p><i>To be able to communicate the above information at the required level to patients/carers/other team members</i></p> <ul style="list-style-type: none"> <li>3 Causes of intermittent/persistent swelling of neck</li> <li>2 Differential diagnosis</li> <li>2 Investigations</li> <li>2 Methods of medical and principles surgical management</li> </ul>
<b>Knowledge</b>	<ul style="list-style-type: none"> <li>3 Neck Anatomy</li> <li>3 Neck Pathology</li> <li>3 Awareness of appropriateness of procedure and alternatives</li> <li>3 Potential complications</li> <li>3 Individual steps of procedure</li> </ul> <ul style="list-style-type: none"> <li>3 Anatomy of fascial spaces of head and neck</li> <li>3 Microbiology of head and neck infection</li> <li>3 Anatomy and physiology of the upper aerodigestive airway</li> </ul> <ul style="list-style-type: none"> <li>3 Anatomy of lymphatic drainage and vital structures, including spinal accessory nerve and brachial plexus</li> <li>3 Differential diagnosis of enlarged neck nodes</li> <li>3 Relevant investigations</li> </ul> <ul style="list-style-type: none"> <li>2 Anatomy of larynx, trachea and related structures</li> <li>3 Techniques of non-surgical airway management</li> </ul>

**Clinical Skills**

- 3 Physiology of respiration
- 3 Upper airway pathology
- 2 Techniques of surgical airway management
- 3 Local anaesthesia and analgesia techniques
- 3 Ability to take and interpret a thorough history
- 3 Clinical examination of the neck and salivary glands
- 2 FNAC technique
- 2 Treatment of acute infected swelling
- 2 Drainage of neck abscess
- Fine needle aspiration of neck mass:

- 2 Carry out of steps of procedure safely and correctly
- 2 Assemble equipment / precautions
- 2 Localisation of mass and aspiration
- 2 Prepare and confirm adequacy of specimen

Drainage of tissue space infection:

- 3 Appropriate aseptic preparation
- 2 Exposure and exploration of tissue space(s)
- 2 Collection of samples
- 2 Securing appropriate drains and dressings

**Technical Skills and Procedures**

Cervical node biopsy:

- 2 Carry out of steps of procedure safely and correctly
- 2 Localisation of mass and dissection
- 2 Wound closure

Surgical access to airway (Tracheostomy / cricothyroidotomy):

- 3 Identify relevant instruments and support staff
- 3 Appropriate aseptic preparation
- 3 Exposure and access to airway
- 2 Control of haemorrhage
- 3 Placement and securing of tube in airway
- 3 Tracheostomy care

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

<b>Topic</b>	<b>Mucous Cyst</b>
<b>Category</b>	Salivary gland / Neck swellings
<b>Sub-category:</b>	Salivary gland swellings
<b>Objective</b>	<p><i>To be able to assess a patient presenting with a neck swelling either acutely or in the out-patient clinic</i></p> <p><i>To be able to formulate a differential diagnosis and an investigation and management plan</i></p> <p><i>To be able to treat the patient appropriately up to and including operative intervention if appropriate</i></p> <p><i>To be able to communicate the above information at the required level to patients/carers/other team members</i></p>

- 3 Causes of intermittent/persistent swelling of major salivary gland
- 3 Differential diagnosis
- 3 Investigations
- 3 Methods of medical and principles surgical management

- 3 Anatomy of lip
- 3 Anatomy of trigeminal nerve and infiltration / nerve block anaesthesia
- 3 Potential complications

**Knowledge**

- 3 Anatomy of submandibular / sublingual gland lingual nerve and oral cavity
- 3 Anatomy of trigeminal nerve and infiltration / nerve block anaesthesia
- 3 Investigations including radiographs

- 3 Anatomy of oral cavity, palate and minor salivary glands
- 3 Differential diagnosis and pathology of salivary gland lesions
- 2 Methods of local flap repair of palate

**Clinical Skills**

- 3 Ability to take accurate relevant history
- 3 Clinical examination of the neck and salivary glands
- 2 FNAC technique
- 3 Treatment of acute infected swelling
- Excision of mucocoele of lip / labial gland biopsy:

**Technical Skills and Procedures**

- 3 Local anaesthetic techniques
- 3 Intra-oral soft tissue dissection and suturing techniques
- 3 Control of haemorrhage

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

**Topic** **Stone Retrieval**

**Category** Salivary gland / Neck swellings

**Sub-category:** Salivary gland swellings

*To be able to assess a patient presenting with a neck swelling either acutely or in the out-patient clinic*

*To be able to formulate a differential diagnosis and an investigation and management plan*

**Objective**

*To be able to treat the patient appropriately up to and including operative intervention if appropriate*

*To be able to communicate the above information at the required level to patients/carers/other team members*

- 3 Causes of intermittent/persistent swelling of major salivary gland
- 3 Differential diagnosis
- 3 Investigations
- 3 Methods of medical and principles surgical management

**Knowledge**

- 3 Anatomy of lip
- 3 Anatomy of trigeminal nerve and infiltration / nerve block anaesthesia
- 3 Potential complications

- 3 Anatomy of submandibular / sublingual gland lingual nerve and oral cavity
- 3 Anatomy of trigeminal nerve and infiltration / nerve block anaesthesia

- 3 Investigations including radiographs
- 3 Anatomy of oral cavity, palate and minor salivary glands
- 3 Differential diagnosis and pathology of salivary gland lesions
- 2 Methods of local flap repair of palate
- 3 Ability to take accurate relevant history
- 3 Clinical examination of the neck and salivary glands
- 2 FNAC technique
- 3 Treatment of acute infected swelling
- Removal of stone from submandibular duct:

**Clinical Skills**

**Technical Skills and Procedures**

- 3 Local anaesthetic techniques
- 3 Exposure of submandibular duct and safe retrieval of stone
- 2 Intra-oral soft tissue dissection and suturing techniques
- 3 Control of haemorrhage

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

<b>Topic</b>	<b>Neoplasm Minor Salivary Gland</b>
<b>Category</b>	Salivary gland / Neck swellings
<b>Sub-category:</b>	Salivary gland swellings
<b>Objective</b>	<p><i>To be able to assess a patient presenting with a neck swelling either acutely or in the out-patient clinic</i></p> <p><i>To be able to formulate a differential diagnosis and an investigation and management plan</i></p> <p><i>To be able to treat the patient appropriately up to and including operative intervention if appropriate</i></p> <p><i>To be able to communicate the above information at the required level to patients/carers/other team members</i></p>
<b>Knowledge</b>	<ul style="list-style-type: none"> <li>3 Causes of intermittent/persistent swelling of major salivary gland</li> <li>3 Differential diagnosis</li> <li>3 Investigations</li> <li>3 Methods of medical and principles surgical management</li> </ul> <ul style="list-style-type: none"> <li>3 Anatomy of lip</li> <li>3 Anatomy of trigeminal nerve and infiltration / nerve block anaesthesia</li> <li>3 Potential complications</li> </ul> <ul style="list-style-type: none"> <li>3 Anatomy of submandibular / sublingual gland lingual nerve and oral cavity</li> <li>3 Anatomy of trigeminal nerve and infiltration / nerve block anaesthesia</li> <li>3 Investigations including radiographs</li> </ul>
<b>Clinical Skills</b>	<ul style="list-style-type: none"> <li>3 Anatomy of oral cavity, palate and minor salivary glands</li> <li>3 Differential diagnosis and pathology of salivary gland lesions</li> <li>2 Methods of local flap repair of palate</li> <li>3 Ability to take accurate relevant history</li> <li>3 Clinical examination of the neck and salivary glands</li> <li>3 FNAC technique</li> <li>2 Treatment of acute infected swelling</li> </ul>
<b>Technical Skills</b>	Excision of neoplasm of minor salivary gland:

**and Procedures**

- 3 Local anaesthetic techniques
- 3 Biopsy techniques
- N/A Excision and local flap repair
- 3 Intra-oral soft tissue dissection and suturing / packing techniques
- 3 Control of haemorrhage

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

<b>Topic</b>	<b>Oro-Pharyngeal Cancer</b>
<b>Category</b>	Head and Neck Cancer
<b>Sub-category:</b>	None
<b>Objective</b>	<i>To be able to assess a patient presenting either acutely or in the out-patient clinic</i> <i>To be able to formulate a differential diagnosis and an investigation and management plan</i> <i>To be able to treat the patient appropriately up to and including operative intervention if appropriate</i> <i>To be able to communicate the above information at the required level to patients/carers/other team members</i>
<b>Knowledge</b>	3 Aetiological factors and differential diagnosis 2 Specialised investigations  3 Anatomy and physiology of mouth, jaws and face 3 Pathology and modes of invasion / spread of common oro-facial malignancies 2 Interpretation of radiographs / scans 2 Common access techniques to oral and jaw cancers 2 Common excisional techniques for orofacial cancer including conservation surgery 2 Requirements for functional rehabilitation 2 Potential complications 2 Alternatives to surgical treatment  3 Anatomy and physiology of face, orbit and skull 2 Understanding of mode of orbital spread of cancer 3 Common excisional techniques for orbital cancer including conservation surgery 2 Access techniques to orbitofacial lesions 2 Individual steps to orbital exenteration 2 Requirements for rehabilitation
<b>Clinical Skills</b>	3 History and examination of the patient with head and neck cancer 3 FNAC/biopsy techniques 2 Endoscopy techniques 2 Ability to formulate treatment plan 2 Carry out appropriate surgery according to competency 2 Post-operative care and follow-up 2 Demonstrate ability to function as part of a multidisciplinary team
<b>Technical Skills and Procedures</b>	3 Biopsy techniques, incisional FNA trucut 2 EUA 3 FNA of neck nodes



## Excision of Oral / Oropharyngeal or Jaw Malignancy:

- 3 Aseptic preparation
- 2 Sharp and blunt dissection of soft tissues
- 2 Osteotomy technique and plate handling skills
- 2 Safe isolation of tumour
- 2 Safe adequate excision of tumour in three dimensions
- 2 Preservation of vital structures
- 2 Control of haemorrhage
- 3 Appropriate drain placement and wound closure

## Orbital Exenteration:

- 3 Aseptic preparation
- 2 Sharp and blunt dissection of soft tissues
- 2 Osteotomy techniques and plate handling skills
- 2 Safe isolation and exenteration of orbital contents
- 3 Skin grafting skills
- 2 Methods of temporary obturation and/or reconstruction

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

<b>Topic</b>	<b>Skin Cancer</b>
<b>Category</b>	Head and Neck Cancer
<b>Sub-category:</b>	None
<b>Objective</b>	<i>To be able to assess a patient presenting with a skin cancer either acutely or in the out-patient clinic</i> <i>To be able to formulate a differential diagnosis and an investigation and management plan</i> <i>To be able to treat the patient appropriately up to and including operative intervention if appropriate</i> <i>To be able to communicate the above information at the required level to patients/carers/other team members</i>
<b>Knowledge</b>	3 Anatomy of head and neck skin and lines of relaxation 3 Awareness of age changes 3 Aetiology and pathology of common skin cancers 3 Principles of wound healing 3 Techniques of skin excision and closure 3 Understanding of common reconstructive skin procedures e.g skin grafts, local flaps
<b>Clinical Skills</b>	3 Ability to take a clear and thorough history 3 To be able to communicate diagnosis to patient 2 Ability to formulate treatment plan 3 Institute aftercare and review
<b>Technical Skills and Procedures</b>	3 Local anaesthetic and sedation techniques 2 Carry out of steps of procedure safely and correctly 2 Techniques of incisional / excisional biopsy 3 Appropriate aseptic preparation 2 Identification of lesion relevant vital structures and margin of normal tissue 2 Excision of lesion 3 Control of haemorrhage

- 2 Techniques of local flap closure
- 3 Appropriate wound closure

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

<b>Topic</b>	<b>Harvest of bone graft (non-vascularised bone grafts)</b>
<b>Category</b>	Reconstructive Surgery
<b>Sub-category:</b>	None
<b>Objective</b>	<p><i>To be able to assess a patient requiring bone graft.</i></p> <p><i>To be able to choose an anatomical site appropriate to requirements</i></p> <p><i>To be able to harvest bone graft appropriately from either intra or extra oral sites</i></p> <p><i>To be able to communicate this information to patients/carers/other team members</i></p>
<b>Knowledge</b>	<ul style="list-style-type: none"> <li>3 Anatomy of mouth, jaws, limbs, pelvis and skull</li> <li>3 Bone healing</li> <li>3 Use of alternative materials/methods</li> <li>3 Advantages/disadvantages of different sites</li> <li>3 Surgical approaches to different sites</li> <li>3 Intraoral and extraoral donor sites</li> <li>3 Risks and complications of procedure</li> <li>3 Techniques of bone graft harvesting e.g. open versus closed, use of bone trephines</li> </ul>
<b>Clinical Skills</b>	<ul style="list-style-type: none"> <li>3 Selection of appropriate anaesthetic technique</li> <li>2 Ability to choose site appropriate for graft of required size/type</li> <li>2 Care of bone graft prior to fixation</li> <li>3 Ensuring adequate mobilisation of patient post operatively</li> </ul>
<b>Technical Skills and Procedures</b>	<ul style="list-style-type: none"> <li>3 Safe harvesting of graft of appropriate size/type</li> <li>3 Repair of donor site</li> <li>3 Insetting and fixation of graft to recipient site</li> </ul>
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Initial</a> section for these skills

<b>Topic</b>	<b>Local Skin Flaps</b>
<b>Category</b>	Reconstructive Surgery
<b>Sub-category:</b>	None
<b>Objective</b>	<p><i>To be able to assess a patient requiring local skin flap.</i></p> <p><i>Ability to formulate treatment plan involving local skin flap.</i></p> <p><i>To be able to carry out this procedure safely.</i></p> <p><i>To be able to communicate information regarding this procedure to patients/carers/other team members</i></p>
<b>Knowledge</b>	<ul style="list-style-type: none"> <li>3 Anatomy of skin of the head and neck</li> <li>3 Techniques of local flap design and use</li> <li>3 Understanding the principles of skin tension lines</li> </ul>
<b>Clinical Skills</b>	<ul style="list-style-type: none"> <li>3 Ability to select the most appropriate flap to suit the individual defect</li> <li>3 Utilising the principles of skin tension lines to the advantage of the surgical repair</li> </ul>
<b>Technical Skills and Procedures</b>	<ul style="list-style-type: none"> <li>3 Local anaesthesia and analgesia techniques</li> <li>3 Aseptic preparation</li> <li>2 Raising, mobilising and insetting local flap</li> </ul>

- 2 Tissue handling and suturing techniques
- 3 Management of complications of wound healing

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

**Topic** Scar Revision / Z-plasty

**Category** Aesthetic Surgery

**Sub-category:** None

**Objective** *To be able to assess a patient requiring scar revision/z-plasty.  
Ability to formulate treatment plan involving scar revision/z-plasty.  
To be able to carry out this procedure safely.  
To be able to communicate information regarding this procedure to patients/carers/other team members*

**Knowledge** 3 Anatomy of head and neck skin and lines of relaxation  
3 Pathophysiology of wound healing  
3 Psychology of body dysmorphobia and post-traumatic stress  
3 Techniques of scar revision and disguise  
3 Techniques of non surgical scar modification

**Clinical Skills** 3 Careful patient selection.

**Technical Skills and Procedures** 3 Aseptic preparation  
3 Tissue handling and suturing techniques  
3 Management of complications of wound healing

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

# Intermediate Stage

## Overview of Intermediate Stage

The purpose of the intermediate stage is to allow a trainee to acquire and develop the specialist skills, knowledge and attitude that will allow further progress towards a CCT in the specialty.

The intermediate stage of specialist training will provide increasing exposure to the core aspects of oral and maxillofacial surgery. The aim is to acquire the competencies and specialist surgical skills that will form the basis for safe clinical practice in the generality of the specialty. The logbook should record development of operative skills and any deficiency in experience or competency during CT3 and ST4 must be corrected during this period.

Instructional courses in various aspects of the specialty will probably be attended during this time. This will include a microsurgical skills course if not already attended. Attendances at regional study days, national and international conferences will be encouraged. Trainees should seek to develop their experience in audit, teaching, presentations and contributing to the specialty literature.

On completion of ST5 of specialist training the trainee will have acquired the following:

1. Increasing competence in the peri-operative care of the maxillofacial surgical patient
2. Competence in diagnosis and clinical management of most oral and maxillofacial conditions
3. Competence in the operative care of a greater range of oral and maxillofacial conditions (i.e. in addition to those listed for CT3 and ST4).

This section gives examples of some other areas of the curriculum that it is

The following problems are commonly encountered and should be managed competently by the end of ST4, up to and including operative intervention if appropriate.

In addition to the conditions identified in the initial phase, trainees in the intermediate stage would be expected to be able to deal with, whether encountered as a result of being 'on-call' or working in an out-patient clinic setting the following:

1. Diagnosis and management of patient with developmental deformity of the facial skeleton
2. Diagnosis and management of patient presenting with oro-facial malignancy

During this stage the trainee will gain competence to the level defined in the syllabus in a number of technical skills and procedures. A trainee would be expected to be able to perform all of the procedures listed below without the direct scrubbed assistance or supervision of a trainer in addition to those identified in the initial stage. The list is not exhaustive, although it covers most of the common procedures expected at this stage.

## Maxillofacial trauma

- Open reduction and fixation of symphysis/body/angle of fractured mandible
- Elevation of fractured zygoma
- Open reduction and fixation of fractured zygoma
- Reduction and fixation fractured maxilla (Le Fort I)

## Salivary gland surgery

- Removal of stone from submandibular duct
- Excision of neoplasm of minor salivary gland
- Sublingual gland excision
- Submandibular gland excision
- Partial/superficial parotidectomy
- Total conservative parotidectomy
- Radical parotidectomy

## Orthognathic surgery

- Genioplasty
- Mandibular ramus osteotomy
- Le Fort I maxillary osteotomy

## Temporomandibular joint surgery

- Arthrocentesis

## Neck surgery

- Tracheostomy/cricothyroidotomy
- Exploration/ligation of external carotid artery
- Cervical node biopsy

## Reconstructive surgery

- Harvest of non-vascularised extra-oral bone graft

## Aesthetic surgery

- Scar revision/Z-plasty etc.

## Neural surgery

- Trigeminal nerve cryotherapy/neurectomy/chemolysis (peripheral)

Click on [Workplace Based Assessments](#) to view the assessment forms including DOPS and PBAs

## Topics

<b>Topic</b>	<b>Intra-capsular TMJ and condylar head pathology</b>
<b>Category</b>	Temporomandibular Disorders
<b>Sub-category:</b>	None
<b>Objective</b>	<i>Can perform complete task without direct supervision of scrubbed trainer.</i>
<b>Knowledge</b>	4 Applied anatomy of temporomandibular joint 4 Causes of TMJ/capsular/meniscal pathology

	4 Procedures available
	4 Indications for open surgery
	4 Potential complications
<b>Clinical Skills</b>	4 Identification of relevant instruments and support staff
<b>Technical Skills and Procedures</b>	4 Approaches to the TMJ and mandibular condyle
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Intermediate</a> section for these skills

<b>Topic</b>	<b>Nasal Fractures</b>
<b>Category</b>	Cranio Maxillofacial Trauma
<b>Sub-category:</b>	Facial Fractures
<b>Objective</b>	<p><i>To be able to assess an injured patient presenting either acutely or in the out-patient clinic</i></p> <p><i>To be able to formulate a differential diagnosis and an investigation and management plan</i></p> <p><i>To be able to treat the patient appropriately up to and including operative intervention if appropriate</i></p> <p><i>To be able to communicate the above information at the required level to patients/carers/other team members</i></p>
<b>Knowledge</b>	<p>4 Aetiology of facial trauma</p> <p>4 Priorities of management</p> <p>4 Assessment of airway and level of consciousness (Glasgow coma scale)</p> <p>4 Signs and symptoms of fractures of facial skeleton</p> <p>4 Eyes/ears assessment</p> <p>4 Investigations and radiographic interpretation</p> <p>4 Anatomy of mouth, jaws, teeth and supporting structures and relevance dental occlusion where appropriate</p> <p>4 Anatomy of trigeminal nerve and infiltration / nerve block anaesthesia</p> <p>4 Classification of dental trauma and dento-alveolar fractures</p> <p>4 Assessment of head injury and cranial nerve function</p> <p>4 Aetiology</p> <p>4 Interpretation of radiographs</p> <p>4 Potential complications</p> <p>4 Pharmacology and therapeutics of post-operative analgesia</p> <p>4 Anatomy of facial skeleton</p> <p>4 Physiology of nasal cavity</p> <p>4 Anatomy of scalp, facial skeleton, orbit and contents</p> <p>4 Anatomy of eyelids</p> <p>4 Classification of facial fractures</p> <p>4 Physiology of sight and oculomotor function</p> <p>4 Available techniques</p>
<b>Clinical Skills</b>	<p>4 General assessment of the traumatised patient</p> <p>3 Assessment and examination of patient with facial trauma</p> <p>3 Airway management and emergency treatment of facial trauma</p> <p>3 Ability to formulate a treatment plan and prioritise management</p>

	4 Pain control /prevention of infection
	4 infiltration / nerve block anaesthesia
	4 Clinical examination of facial skeleton and cranial nerves
<b>Technical Skills and Procedures</b>	4 Carry out of steps of procedure safely and correctly
	3 Manipulation of nasal bones and septum
	3 Management of epistaxis
	4 Nasal packing and external splintage
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Intermediate</a> section for these skills

<b>Topic</b>	<b>Lacrimal/Parotid duct injury</b>
<b>Category</b>	Cranio Maxillofacial Trauma
<b>Sub-category:</b>	None
<b>Objective</b>	<i>To be able to identify a patient who has sustained these injuries. To be alert for the potential for these injuries to occur. To be able to carry out these procedures safely and competently.</i>
<b>Knowledge</b>	4 Anatomy and physiology of parotid / lacrimal glands 4 Appropriate investigations 4 Principles of stenting of duct
<b>Clinical Skills</b>	4 Examination of cranial nerves / recognition of case at risk 4 Examination of eyelids and lacrimal apparatus 4 Identify relevant instruments 4 Identification of key structures
<b>Technical Skills and Procedures</b>	3 Use of loupes / operating microscope 3 Surgical repair under magnification 3 Ability to stent duct
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Intermediate</a> section for these skills
<b>Topic</b>	<b>Fracture of mandibular condyle</b>
<b>Category</b>	Cranio Maxillofacial Trauma
<b>Sub-category:</b>	Facial Fractures
<b>Objective</b>	<i>To be able to identify a patient who has sustained this injury. To be alert for the potential for this injury to occur. To understand the principles of surgical management of this injury. To be able to carry out these procedures safely and competently</i>
<b>Knowledge</b>	4 Anatomy of facial skeleton, TM joint, parotid gland, facial nerve 4 Classification of condylar fractures 4 Assessment of head injury and cranial nerve function 4 Dental occlusion 4 Selection and interpretation of relevant imaging 4 Understanding the benefits and indications of both open and closed treatments 4 Potential complications long and short term
<b>Clinical Skills</b>	4 Ability to correctly interpret physical signs and relevant imaging 4 Clinical examination of teeth, oral cavity, facial skeleton and cranial nerves 4 Demonstrates clinical judgment appropriate to injury and patient needs

Closed reduction:

- 4 Carry out of steps of procedure safely and correctly
- 4 Techniques for removal of damaged teeth / retained roots
- 4 Techniques of intermaxillary fixation

**Technical Skills and Procedures**

Open Reduction:

- 3 Carry out of steps of procedure safely and correctly
- 4 Techniques for removal of damaged teeth / retained roots
- 3 Techniques for exposure of fracture site and manipulation of condylar fragment
- 4 Plate handling skills
- 4 Techniques of intermaxillary fixation

**Professional Skills**

Please see the [Professional Skills and Behaviour » Intermediate](#) section for these skills

**Topic** Fracture of maxilla

**Category** Cranio Maxillofacial Trauma

**Sub-category:** Facial Fractures

**Objective**

- To be able to identify a patient who has sustained this injury.*
- To be alert for the potential for this injury to occur.*
- To understand the principles of surgical management of this injury.*
- To be able to carry out these procedures safely and competently*

**Knowledge**

- 4 Anatomy of facial skeleton
- 4 Classification of mid -facial fractures
- 4 Bone healing
- 4 Head injury and cranial nerve function
- 4 Dental occlusion
- 4 Available techniques e.g. open fixation, closed fixation techniques
- 4 Potential complications
- 4 Awareness of possibility of other associated fractures
- 4 Understanding the role of the maxillofacial technician
- 4 Systematic clinical examination of teeth, oral cavity, facial skeleton and cranial nerves

**Clinical Skills**

- 3 Interpretation of radiographs/scans
- 4 Assessment of head injury and cranial nerve function
- 4 Selection of treatment plan appropriate to the patients injury
- 3 An awareness of other factors affecting timing of surgery
- 4 Involving the maxillofacial technician in treatment planning

**Technical Skills and Procedures**

- 4 Carry out of steps of procedure safely and correctly
- 4 Techniques for removal of damaged teeth / retained roots
- 3 Techniques for exposure of fracture sites and reduction of fragments
- 3 Plate handling skills
- 4 Techniques of intermaxillary fixation
- 3 Techniques of cranio-maxillary fixation

**Professional Skills**

Please see the [Professional Skills and Behaviour » Intermediate](#) section for these skills



<b>Topic</b>	<b>Fracture of orbital floor</b>
<b>Category</b>	Cranio Maxillofacial Trauma
<b>Sub-category:</b>	Facial Fractures
<b>Objective</b>	<p><i>To be able to identify a patient who has sustained this injury.</i></p> <p><i>To be alert for the potential for this injury to occur.</i></p> <p><i>To understand the principles of surgical management of this injury.</i></p> <p><i>To be able to carry out these procedures safely and competently</i></p>
<b>Knowledge</b>	<p>4 Anatomy and physiology of facial skeleton, orbit and contents</p> <p>4 Awareness of head injury and cranial nerve function</p> <p>3 Potential for complications involving sight and early involvement where appropriate of ophthalmologists/orthoptists</p> <p>3 Surgical approaches to the orbit</p> <p>3 Available techniques for orbital wall reconstruction</p> <p>4 Potential complications</p>
<b>Clinical Skills</b>	<p>4 Clinical examination of eyes, facial skeleton and cranial nerves</p> <p>3 Assessment of head injury and cranial nerve function</p> <p>4 Choice of appropriate surgical technique</p> <p>3 Interpretation of radiographs/scans</p>
<b>Technical Skills and Procedures</b>	<p>3 Carry out of steps of procedure safely and correctly</p> <p>3 Assessment of eye function</p> <p>3 Techniques for approach to orbital floor</p> <p>3 Safe exposure of fracture sites and reduction of fragments</p> <p>3 Bone grafting and plating skills</p>
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Intermediate</a> section for these skills

<b>Topic</b>	<b>Dental Trauma and dento-alveolar fractures</b>
<b>Category</b>	Cranio Maxillofacial Trauma
<b>Sub-category:</b>	Facial Fractures
<b>Objective</b>	<p><i>To be able to assess an injured patient presenting either acutely or in the out-patient clinic</i></p> <p><i>To be able to formulate a differential diagnosis and an investigation and management plan</i></p> <p><i>To be able to treat the patient appropriately up to and including operative intervention if appropriate</i></p> <p><i>To be able to communicate the above information at the required level to patients/carers/other team members</i></p>
<b>Knowledge</b>	<p>4 Aetiology of facial trauma</p> <p>3 Priorities of management</p> <p>3 Assessment of airway and level of consciousness (Glasgow coma scale)</p> <p>3 Signs and symptoms of fractures of facial skeleton</p> <p>3 Eyes/ears assessment</p> <p>3 Investigations and radiographic interpretation</p> <p>4 Anatomy of mouth, jaws, teeth and supporting structures</p> <p>4 Anatomy of trigeminal nerve and infiltration / nerve block anaesthesia</p> <p>4 Classification of dental trauma and dento-alveolar fractures</p> <p>4 Assessment of head injury and cranial nerve function</p>

- 4 Aetiology
- 3 Interpretation of radiographs
- 4 Potential complications
- 4 Pharmacology and therapeutics of post-operative analgesia

- 4 Anatomy of facial skeleton
- 4 Physiology of nasal cavity

- 4 Anatomy of scalp, facial skeleton, orbit and contents
- 4 Anatomy of eyelids
- 3 Classification of facial fractures
- 4 Physiology of sight and oculomotor function
- 3 Available techniques

- 4 Anatomy of facial skeleton, teeth and supporting structures
- 4 Dental occlusion

**Clinical Skills**

- 4 General assessment of the traumatised patient
- 3 Assessment and examination of patient with facial trauma
- 3 Airway management and emergency treatment of facial trauma
- 3 Ability to formulate a treatment plan and prioritise management
- 3 Pain control /prevention of infection
- 4 infiltration / nerve block anaesthesia
- 3 Clinical examination of oral cavity, facial skeleton and cranial nerves

**Technical Skills and Procedures**

- 4 Local anaesthetic and sedation techniques
- 3 Carry out of steps of procedure safely and correctly
- 4 Techniques for removal of damaged teeth/retained roots
- 3 Techniques of preservation of damaged teeth, reduction and fixation
- 3 Intra-oral soft tissue handling and suturing techniques

**Professional Skills**

Please see the [Professional Skills and Behaviour » Intermediate](#) section for these skills

**Topic**            **Fractured Zygoma**

**Category**        Cranio Maxillofacial Trauma

**Sub-category:** Facial Fractures

**Objective**

*To be able to assess an injured patient presenting either acutely or in the out-patient clinic*

*To be able to formulate a differential diagnosis and an investigation and management plan*

*To be able to treat the patient appropriately up to and including operative intervention if appropriate*

*To be able to communicate the above information at the required level to patients/carers/other team members*

**Knowledge**

- 4 Aetiology of facial trauma
- 3 Priorities of management
- 3 Assessment of airway and level of consciousness (Glasgow coma scale)
- 3 Signs and symptoms of fractures of facial skeleton
- 3 Eyes/ears assessment
- 3 Investigations and radiographic interpretation

- 4 Anatomy of mouth, jaws, teeth and supporting structures

- 4 Anatomy of trigeminal nerve and infiltration / nerve block anaesthesia
- 3 Classification of dental trauma and dento-alveolar fractures
- 3 Assessment of head injury and cranial nerve function
- 4 Aetiology
- 3 Interpretation of radiographs
- 3 Potential complications
- 4 Pharmacology and therapeutics of post-operative analgesia

- 4 Anatomy of facial skeleton
- 4 Physiology of nasal cavity

- 4 Anatomy of scalp, facial skeleton, orbit and contents
- 4 Anatomy of eyelids
- 3 Classification of facial fractures
- 4 Physiology of sight and oculomotor function
- 3 Available techniques

- 3 Anatomy of facial skeleton, teeth and supporting structures
- 4 Dental occlusion

**Clinical Skills**

- 4 General assessment of the traumatised patient
- 3 Assessment and examination of patient with facial trauma
- 3 Airway management and emergency treatment of facial trauma
- 3 Ability to formulate a treatment plan and prioritise management
- 4 Pain control /prevention of infection
- 4 infiltration / nerve block anaesthesia

**Technical Skills and Procedures**

- 4 Clinical examination of facial skeleton and cranial nerves
- 3 Basic ophthalmic and orthoptic assessment
- 3 Carry out of steps of procedure safely and correctly
- 3 Techniques of exposure of fracture site(s) and bone manipulation
- 3 Plate handling skills
- 3 Soft tissue handling and suturing techniques

**Professional Skills**

Please see the [Professional Skills and Behaviour » Intermediate](#) section for these skills

**Topic** Fracture of mandible (excluding condyle)

**Category** Cranio Maxillofacial Trauma

**Sub-category:** Facial Fractures

**Objective**

*To be able to assess an injured patient presenting either acutely or in the out-patient clinic*

*To be able to formulate a differential diagnosis and an investigation and management plan*

*To be able to treat the patient appropriately up to and including operative intervention if appropriate*

*To be able to communicate the above information at the required level to patients/carers/other team members*

**Knowledge**

- 3 Aetiology of facial trauma
- 3 Priorities of management
- 4 Assessment of airway and level of consciousness (Glasgow coma scale)
- 3 Signs and symptoms of fractures of facial skeleton
- 3 Eyes/ears assessment

3 Investigations and radiographic interpretation

- 4 Anatomy of mouth, jaws, teeth and supporting structures
- 4 Anatomy of trigeminal nerve and infiltration / nerve block anaesthesia
- 4 Classification of dental trauma and dento-alveolar fractures
- 4 Assessment of head injury and cranial nerve function
- 4 Aetiology
- 3 Interpretation of radiographs
- 3 Potential complications
- 4 Pharmacology and therapeutics of post-operative analgesia

- 4 Anatomy of facial skeleton
- 4 Physiology of nasal cavity

- 4 Anatomy of scalp, facial skeleton, orbit and contents
- 4 Anatomy of eyelids
- 4 Classification of facial fractures
- 4 Physiology of sight and oculomotor function
- 4 Available techniques

- 4 Anatomy of facial skeleton, teeth and supporting structures
- 4 Dental occlusion

**Clinical Skills**

- 3 General assessment of the traumatised patient
- 3 Assessment and examination of patient with facial trauma
- 3 Airway management and emergency treatment of facial trauma
- 3 Ability to formulate a treatment plan and prioritise management
- 3 Pain control /prevention of infection
- 4 infiltration / nerve block anaesthesia

**Technical Skills and Procedures**

- 4 Clinical examination of teeth, oral cavity, facial skeleton and cranial nerves
- 3 Carry out of steps of procedure safely and correctly
- 4 Techniques for removal of damaged teeth/retained roots
- 3 Techniques of exposure of fracture site(s) and bone manipulation
- 3 Plate handling skills
- 3 Techniques of intermaxillary fixation
- 3 Intra/extra-oral soft tissue handling and suturing techniques

**Professional Skills**

Please see the [Professional Skills and Behaviour » Intermediate](#) section for these skills

**Topic** Fractures of Naso-orbito-ethmoid complex

**Category** Cranio Maxillofacial Trauma

**Sub-category:** Facial Fractures

**Objective** *Can perform complete task without direct assistance of scrubbed trainer.*

**Knowledge**

- 4 Anatomy of craniofacial skeleton, nasal bones, orbit and contents
- 4 Classification of facial fractures
- 3 Assessment of head injury and cranial nerve function
- 3 Interpretation of radiographs/scans
- 3 Available techniques
- 3 Potential complications

- 4 Anatomy of craniofacial skeleton, frontal bones, nasal bones, orbit and

	<ul style="list-style-type: none"> <li>contents</li> <li>4 Anatomy and physiology of frontal sinus drainage</li> <li>4 Classification of frontal bone and facial fractures</li> <li>4 Clinical examination of eyes, facial skeleton and cranial nerves</li> <li>3 Carry out of steps of procedure safely and correctly</li> </ul>
<b>Clinical Skills</b>	<ul style="list-style-type: none"> <li>Fractures of naso-orbito-ethmoid complex: <ul style="list-style-type: none"> <li>3 Techniques for approach to naso-ethmoid complex</li> <li>3 Safe exposure of fracture sites and reduction of fragments</li> <li>3 Bone grafting and plating skills</li> </ul> </li> </ul>
<b>Technical Skills and Procedures</b>	<ul style="list-style-type: none"> <li>Fracture of frontal bones and craniofacial fractures: <ul style="list-style-type: none"> <li>3 Techniques for approach to frontal bone fractures</li> <li>3 Safe exposure of fracture sites and reduction of fragments</li> <li>2 Management of frontal sinus involvement</li> <li>3 Bone grafting and plating skills</li> </ul> </li> </ul>
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Intermediate</a> section for these skills

<b>Topic</b>	<b>Fracture of frontal bones and craniofacial fractures</b>
<b>Category</b>	Cranio Maxillofacial Trauma
<b>Sub-category:</b>	Facial Fractures
<b>Objective</b>	<i>Can perform complete task without direct assistance of scrubbed trainer.</i>
<b>Knowledge</b>	<ul style="list-style-type: none"> <li>4 Anatomy of craniofacial skeleton, nasal bones, orbit and contents</li> <li>3 Classification of facial fractures</li> <li>4 Assessment of head injury and cranial nerve function</li> <li>3 Interpretation of radiographs/scans</li> <li>4 Available techniques</li> <li>4 Potential complications</li> </ul>
<b>Clinical Skills</b>	<ul style="list-style-type: none"> <li>4 Anatomy of craniofacial skeleton, frontal bones, nasal bones, orbit and contents</li> <li>3 Anatomy and physiology of frontal sinus drainage</li> <li>3 Classification of frontal bone and facial fractures</li> <li>3 Clinical examination of eyes, facial skeleton and cranial nerves</li> <li>3 Carry out of steps of procedure safely and correctly</li> <li>Fractures of naso-orbito-ethmoid complex: <ul style="list-style-type: none"> <li>3 Techniques for approach to naso-ethmoid complex</li> <li>3 Safe exposure of fracture sites and reduction of fragments</li> <li>3 Bone grafting and plating skills</li> </ul> </li> </ul>
<b>Technical Skills and Procedures</b>	<ul style="list-style-type: none"> <li>Fracture of frontal bones and craniofacial fractures: <ul style="list-style-type: none"> <li>3 Techniques for approach to frontal bone fractures</li> <li>3 Safe exposure of fracture sites and reduction of fragments</li> <li>3 Management of frontal sinus involvement</li> <li>3 Bone grafting and plating skills</li> </ul> </li> </ul>
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Intermediate</a> section for

these skills

<b>Topic</b>	<b>Recurrent dislocation</b>
<b>Category</b>	Facial pain
<b>Sub-category:</b>	Temporomandibular joint disorders
<b>Objective</b>	<i>To be able to assess a patient presenting with pain either acutely or in the out-patient clinic</i> <i>To be able to formulate a differential diagnosis and an investigation and management plan</i> <i>To be able to treat the patient appropriately up to and including operative intervention if appropriate</i> <i>To be able to communicate the above information at the required level to patients/carers/other team members</i>
<b>Knowledge</b>	4 Signs and symptoms of TMJ dysfunction 3 Differential diagnosis 3 Investigations and radiographic interpretation 3 Methods of medical and surgical management 3 Relevant pharmacology and therapeutics
<b>Clinical Skills</b>	3 Ability to take a comprehensive pain history 3 Ability to examine TMJ and muscles of mastication 3 Ability to formulate and instigate treatment plan 3 Understanding of potential role of occlusion 2 Use of TENS devices 2 Use of occlusal adjustment therapy
<b>Technical Skills and Procedures</b>	2 Arthrocentesis, arthrograms and arthroscopy 3 Open joint procedures e.g. disc plication, eminectomy
<b>Professional Skills</b>	3 Approaches to the TMJ and zygomatic arch 3 Appropriate wound closure Please see the <a href="#">Professional Skills and Behaviour » Intermediate</a> section for these skills

<b>Topic</b>	<b>Ankylosis</b>
<b>Category</b>	Facial pain
<b>Sub-category:</b>	Temporomandibular joint disorders
<b>Objective</b>	<i>To be able to assess a patient presenting with pain either acutely or in the out-patient clinic</i> <i>To be able to formulate a differential diagnosis and an investigation and management plan</i> <i>To be able to treat the patient appropriately up to and including operative intervention if appropriate</i> <i>To be able to communicate the above information at the required level to patients/carers/other team members</i>
<b>Knowledge</b>	4 Signs and symptoms of TMJ dysfunction 3 Differential diagnosis 3 Investigations and radiographic interpretation 3 Methods of medical and surgical management 3 Relevant pharmacology and therapeutics

<b>Clinical Skills</b>	3 Ability to take a comprehensive pain history 3 Ability to examine TMJ and muscles of mastication 3 Ability to formulate and instigate treatment plan 3 Understanding of potential role of occlusion
<b>Technical Skills and Procedures</b>	2 Use of TENS devices 2 Use of occlusal adjustment therapy 2 Arthrocentesis, arthrograms and arthroscopy 2 Open joint procedures e.g. disc plication, eminectomy
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Intermediate</a> section for these skills

<b>Topic</b>	<b>Disc displacement</b>
<b>Category</b>	Facial pain
<b>Sub-category:</b>	Temporomandibular joint disorders
<b>Objective</b>	<i>To be able to assess a patient presenting with pain either acutely or in the out-patient clinic</i> <i>To be able to formulate a differential diagnosis and an investigation and management plan</i> <i>To be able to treat the patient appropriately up to and including operative intervention if appropriate</i> <i>To be able to communicate the above information at the required level to patients/carers/other team members</i>
<b>Knowledge</b>	3 Signs and symptoms of TMJ dysfunction 3 Differential diagnosis 3 Investigations and radiographic interpretation 3 Methods of medical and surgical management 3 Relevant pharmacology and therapeutics
<b>Clinical Skills</b>	3 Ability to take a comprehensive pain history 3 Ability to examine TMJ and muscles of mastication 3 Ability to formulate and instigate treatment plan 3 Understanding of potential role of occlusion
<b>Technical Skills and Procedures</b>	2 Use of TENS devices 2 Use of occlusal adjustment therapy 2 Arthrocentesis, arthrograms and arthroscopy 2 Open joint procedures e.g. disc plication, emminectomy
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Intermediate</a> section for these skills

<b>Topic</b>	<b>Peri-operative care</b>
<b>Category</b>	Peri-operative care
<b>Sub-category:</b>	None
<b>Objective</b>	<i>To ensure the trainee has reached a level of competence in peri-operative care. The following should apply to each of the procedures in the common conditions and operative skills category.</i>
<b>Knowledge</b>	Pre-operative Care 4 Indications for surgery 4 Required preparation for surgery to include necessary pre-operative investigations

- 4 Outcomes and complications of surgery
- 4 Knowledge of the admission process

Intra-operative care

- 4 Anatomy to be encountered during procedure
- 3 Steps involved in operative procedure
- 3 Knowledge of alternative procedures in case of encountering difficulties

Post-operative care

- 3 Potential complications of procedure
- 3 Outcomes of procedure
- 3 Likely post-operative progress from disease process and intervention
- 3 Physiological and pathological changes in condition as a result of intervention

Pre-operative care

- 3 Synthesis of history and examination into operative management plan
- 3 Ability to explain procedure and outcomes to patient and parents at an appropriate level
- 4 To be able to take informed consent
- 4 To construct an appropriate theatre list
- 4 Where appropriate to communicate with relevant other members of the theatre team e.g. anaesthetist, scrub nurse

**Clinical Skills** Intra-operative care

- 3 Appropriate use of assistance
- 3 Communication with other members of theatre team

Post-operative Care

- 3 Assessment of patient and physiological parameters
- 2 Appropriate intervention to deal with changing parameters
- 3 Communication skills for dealing with team members, patients and carers
- 3 Ability to prioritise interventions
- 3 Recognition of complications of procedure

**Technical Skills and Procedures**

- 4 Necessary hand-eye dexterity to complete procedure

**Professional Skills** Please see the [Professional Skills and Behaviour » Intermediate](#) section for these skills

**Topic** **Mucous cyst of sublingual saliva gland/ranula**

**Category** Salivary gland / Neck swellings

**Sub-category:** Salivary gland swellings

*To be able to assess a patient presenting with a neck swelling either acutely or in the out-patient clinic*

*To be able to formulate a differential diagnosis and an investigation and management plan*

**Objective** *To be able to treat the patient appropriately up to and including operative intervention if appropriate*

*To be able to communicate the above information at the required level to patients/carers/other team members*



	3 Anatomy and physiology of major salivary glands
	3 Anatomy of oral cavity and lingual nerve
	3 Indications and techniques
	3 Potential complications
<b>Knowledge</b>	3 Anatomy of facial and lingual nerves
	3 Investigations
	3 Indications and techniques
	3 Anatomy of facial nerve
	3 Investigations / FNAC technique
	3 Indications for procedures and techniques
<b>Clinical Skills</b>	3 Identification of relevant instruments and support staff
	Sublingual gland excision:
<b>Technical Skills and Procedures</b>	3 Intra-oral dissection
	3 Identification and protection of submandibular duct/lingual nerve
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Intermediate</a> section for these skills

<b>Topic</b>	<b>Tumour of sublingual salivary gland</b>
<b>Category</b>	Salivary gland / Neck swellings
<b>Sub-category:</b>	Salivary gland swellings
	<i>To be able to assess a patient presenting with a neck swelling either acutely or in the out-patient clinic</i>
	<i>To be able to formulate a differential diagnosis and an investigation and management plan</i>
<b>Objective</b>	<i>To be able to treat the patient appropriately up to and including operative intervention if appropriate</i>
	<i>To be able to communicate the above information at the required level to patients/carers/other team members</i>
	3 Anatomy and physiology of major salivary glands
	3 Anatomy of oral cavity and lingual nerve
	3 Indications and techniques
	3 Potential complications
<b>Knowledge</b>	3 Anatomy of facial and lingual nerves
	3 Investigations
	3 Indications and techniques
	3 Anatomy of facial nerve
	3 Investigations / FNAC technique
	3 Indications for procedures and techniques
<b>Clinical Skills</b>	3 Identification of relevant instruments and support staff
	Sublingual gland excision:
<b>Technical Skills and Procedures</b>	3 Intra-oral dissection
	3 Identification and protection of submandibular duct/lingual nerve
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Intermediate</a> section for these skills

<b>Topic</b>	<b>Obstructive/inflammatory disease of submandibular gland</b>
<b>Category</b>	Salivary gland / Neck swellings
<b>Sub-category:</b>	Salivary gland swellings
<b>Objective</b>	<p><i>To be able to assess a patient presenting with a neck swelling either acutely or in the out-patient clinic</i></p> <p><i>To be able to formulate a differential diagnosis and an investigation and management plan</i></p> <p><i>To be able to treat the patient appropriately up to and including operative intervention if appropriate</i></p> <p><i>To be able to communicate the above information at the required level to patients/carers/other team members</i></p> <p>3 Anatomy and physiology of major salivary glands</p> <p>3 Anatomy of oral cavity and lingual nerve</p> <p>3 Indications and techniques</p> <p>3 Potential complications</p>
<b>Knowledge</b>	<p>3 Anatomy of facial and lingual nerves</p> <p>3 Investigations</p> <p>3 Indications and techniques</p>
<b>Clinical Skills</b>	<p>3 Anatomy of facial nerve</p> <p>3 Investigations / FNAC technique</p> <p>3 Indications for procedures and techniques</p> <p>3 Identification of relevant instruments and support staff</p>
<b>Technical Skills and Procedures</b>	<p>Submandibular gland excision:</p> <p>4 Aseptic preparation</p> <p>3 Skin incision and approach to gland</p> <p>3 Identification and protection of facial nerve</p> <p>3 Dissection of gland and ligation of duct</p> <p>3 Appropriate drainage and closure</p>
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Intermediate</a> section for these skills

<b>Topic</b>	<b>Tumour of Submandibular Gland</b>
<b>Category</b>	Salivary gland / Neck swellings
<b>Sub-category:</b>	Salivary gland swellings
<b>Objective</b>	<p><i>To be able to assess a patient presenting with a neck swelling either acutely or in the out-patient clinic</i></p> <p><i>To be able to formulate a differential diagnosis and an investigation and management plan</i></p> <p><i>To be able to treat the patient appropriately up to and including operative intervention if appropriate</i></p> <p><i>To be able to communicate the above information at the required level to patients/carers/other team members</i></p>
<b>Knowledge</b>	<p>3 Anatomy and physiology of major salivary glands</p> <p>3 Anatomy of oral cavity and lingual nerve</p> <p>3 Indications and techniques</p> <p>3 Potential complications</p>

	3 Anatomy of facial and lingual nerves
	3 Investigations
	3 Indications and techniques
	3 Anatomy of facial nerve
	3 Investigations / FNAC technique
	3 Indications for procedures and techniques
<b>Clinical Skills</b>	3 Identification of relevant instruments and support staff
	Submandibular gland excision:
	3 Aseptic preparation
<b>Technical Skills and Procedures</b>	3 Skin incision and approach to gland
	2 Identification and protection of facial nerve
	3 Dissection of gland and ligation of duct
	3 Appropriate drainage and closure
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Intermediate</a> section for these skills

**Topic**                    **Obstructive or Inflammatory disease**

**Category**                Salivary gland / Neck swellings

**Sub-category:**        Salivary gland swellings

**Objective**

*To be able to assess a patient presenting with a neck swelling either acutely or in the out-patient clinic*

*To be able to formulate a differential diagnosis and an investigation and management plan*

*To be able to treat the patient appropriately up to and including operative intervention if appropriate*

*To be able to communicate the above information at the required level to patients/carers/other team members*

3 Anatomy and physiology of major salivary glands

3 Anatomy of oral cavity and lingual nerve

3 Indications and techniques

3 Potential complications

**Knowledge**

3 Anatomy of facial and lingual nerves

3 Investigations

3 Indications and techniques

**Clinical Skills**

3 Anatomy of facial nerve

3 Investigations / FNAC technique

3 Indications for procedures and techniques

4 Identification of relevant instruments and support staff

Parotidectomy:

3 FNAC technique

4 Aseptic preparation

**Technical Skills and Procedures**

3 Skin incisions and approaches to facial nerve

3 Identification and protection of facial nerve

2 Dissection of gland/tumour and ligation of duct

3 Appropriate drainage and closure

2 Neural repair and grafting

**Professional Skills** Please see the [Professional Skills and Behaviour » Intermediate](#) section for these skills

<b>Topic</b>	<b>Benign and Malignant Tumour</b>
<b>Category</b>	Salivary gland / Neck swellings
<b>Sub-category:</b>	Salivary gland swellings
<b>Objective</b>	<i>To be able to assess a patient presenting with a neck swelling either acutely or in the out-patient clinic</i> <i>To be able to formulate a differential diagnosis and an investigation and management plan</i> <i>To be able to treat the patient appropriately up to and including operative intervention if appropriate</i> <i>To be able to communicate the above information at the required level to patients/carers/other team members</i> 3 Anatomy and physiology of major salivary glands 3 Anatomy of oral cavity and lingual nerve 3 Indications and techniques 3 Potential complications
<b>Knowledge</b>	3 Anatomy of facial and lingual nerves 3 Investigations 3 Indications and techniques
<b>Clinical Skills</b>	3 Anatomy of facial nerve 3 Investigations / FNAC technique 3 Indications for procedures and techniques 4 Identification of relevant instruments and support staff
<b>Technical Skills and Procedures</b>	Parotidectomy: 3 FNAC technique 4 Aseptic preparation 3 Skin incisions and approaches to facial nerve 3 Identification and protection of facial nerve 2 Dissection of gland/tumour and ligation of duct 3 Appropriate drainage and closure 2 Neural repair and grafting
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Intermediate</a> section for these skills

<b>Topic</b>	<b>Management of Cancer of the head and neck region</b>
<b>Category</b>	Head and Neck Cancer
<b>Sub-category:</b>	None
<b>Objective</b>	<i>To be able to assess a patient presenting either acutely or in the out-patient clinic</i> <i>To be able to formulate a differential diagnosis and an investigation and management plan</i> <i>To be able to treat the patient appropriately up to and including operative intervention if appropriate</i> <i>To be able to communicate the above information at the required level to</i>

*patients/carers/other team members*

*Can perform complete task without direct assistance of scrubbed trainer.*

- 3 Aetiological factors and differential diagnosis
- 3 Specialised investigations

**Knowledge**

- 3 Anatomy and physiology of mouth, jaws and face
- 3 Pathology and modes of invasion / spread of common oro-facial malignancies
- 3 Interpretation of radiographs / scans
- 3 Common access techniques to oral and jaw cancers
- 2 Common excisional techniques for orofacial cancer including conservation surgery
- 3 Requirements for functional rehabilitation
- 2 Potential complications
- 3 Alternatives to surgical treatment

**Clinical Skills**

- 3 Anatomy and physiology of face, orbit and skull
- 3 Understanding of mode of orbital spread of cancer
- 2 Common excisional techniques for orbital cancer including conservation surgery
- 2 Access techniques to orbitofacial lesions
- 3 Individual steps to orbital exenteration
- 3 Requirements for rehabilitation
- 3 History and examination of the patient with head and neck cancer
- 3 FNAC/biopsy techniques
- 2 Endoscopy techniques
- 2 Ability to formulate treatment plan
- 3 Carry out appropriate surgery according to competency
- 2 Post-operative care and follow-up

**Technical Skills and Procedures**

- 4 Identify relevant instruments and support staff
- Excision of Oral / Oropharyngeal or Jaw Malignancy:
- 4 Aseptic preparation
  - 3 Sharp and blunt dissection of soft tissues
  - 2 Osteotomy technique and plate handling skills
  - 2 Safe isolation of tumour
  - 2 Safe adequate excision of tumour in three dimensions
  - 2 Preservation of vital structures
  - 3 Control of haemorrhage
  - 3 Appropriate drain placement and wound closure

Orbital Exenteration:

- 4 Aseptic preparation
- 3 Sharp and blunt dissection of soft tissues
- 2 Osteotomy techniques and plate handling skills
- 2 Safe isolation and exenteration of orbital contents
- 3 Skin grafting skills
- 2 Methods of temporary obturation and/or reconstruction

**Professional Skills**

Please see the [Professional Skills and Behaviour » Intermediate](#) section for these skills

<b>Topic</b>	<b>Developmental/acquired deformity of facial skeleton</b>
<b>Category</b>	Facial Deformity
<b>Sub-category:</b>	None
<b>Objective</b>	<p><i>To be able to assess a patient presenting either acutely or in the out-patient clinic</i></p> <p><i>To be able to formulate a differential diagnosis and an investigation and management plan</i></p> <p><i>To be able to treat the patient appropriately up to and including operative intervention if appropriate</i></p> <p><i>To be able to communicate the above information at the required level to patients/carers/other team members</i></p>
<b>Knowledge</b>	<ul style="list-style-type: none"> <li>3 Aetiological factors and differential diagnosis</li> <li>3 Specialised investigations</li> <li>3 Classification of malocclusion/deformity</li> </ul>
<b>Clinical Skills</b>	<ul style="list-style-type: none"> <li>3 History and examination of the patient with facial deformity</li> <li>2 Ability to formulate treatment plan</li> <li>2 Post-operative care and follow-up</li> <li>3 Identification of relevant instruments and support staff</li> </ul>
<b>Technical Skills and Procedures</b>	<ul style="list-style-type: none"> <li>2 Orthognathic surgery techniques</li> </ul>
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Intermediate</a> section for these skills

<b>Topic</b>	<b>Genioplasty</b>
<b>Category</b>	Orthognathic Surgery
<b>Sub-category:</b>	None
<b>Objective</b>	<p><i>Can perform complete task without direct supervision of scrubbed trainer</i></p> <ul style="list-style-type: none"> <li>3 Developmental anatomy of facial skeleton and facial musculature</li> <li>3 Classification and assessment of facial deformity</li> </ul>
<b>Knowledge</b>	<ul style="list-style-type: none"> <li>3 Psychology of facial deformity</li> <li>3 Norms of facial proportions</li> <li>2 Techniques of cephalometric analysis</li> <li>3 Potential complications</li> </ul>
<b>Clinical Skills</b>	<ul style="list-style-type: none"> <li>2 History and examination of the patient with facial deformity</li> <li>2 Ability to formulate treatment plan</li> <li>2 Orthognathic surgery techniques</li> <li>2 Post-operative care and follow-up</li> <li>3 Identification of relevant instruments and support staff</li> </ul>
<b>Technical Skills and Procedures</b>	<ul style="list-style-type: none"> <li>2 Approaches to the anterior mandible</li> <li>2 Identification and protection of mental nerves</li> <li>2 Safe use of power tools</li> <li>2 Plating and fixation skills</li> <li>2 Control of haemorrhage</li> </ul>
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Intermediate</a> section for these skills

<b>Topic</b>	<b>Mandibular ramus osteotomy</b>
<b>Category</b>	Orthognathic Surgery
<b>Sub-category:</b>	None
<b>Objective</b>	<i>Can perform complete task without direct supervision of scrubbed trainer</i> 3 Developmental anatomy of facial skeleton and facial musculature 3 Development of occlusion 3 Classification and assessment of facial deformity
<b>Knowledge</b>	3 Physiology of mastication 3 Psychology of facial deformity 3 Norms of facial proportions 3 Techniques of cephalometric analysis 3 Potential complications 3 History and examination of the patient with facial deformity
<b>Clinical Skills</b>	2 Ability to formulate treatment plan 2 Orthognathic surgery techniques 2 Post-operative care and follow-up 3 Identification of relevant instruments and support staff 2 Approaches to the mandibular ramus 3 Identification and protection of key structures
<b>Technical Skills and Procedures</b>	3 Safe use of power tools 2 Plating and fixation skills 3 Control of haemorrhage 3 Intermaxillary fixation techniques
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Intermediate</a> section for these skills

<b>Topic</b>	<b>Maxillary osteotomy (Le Fort I and variants)</b>
<b>Category</b>	Orthognathic Surgery
<b>Sub-category:</b>	None
<b>Objective</b>	<i>Can perform complete task without direct supervision of scrubbed trainer</i> 3 Developmental anatomy of facial skeleton and facial musculature= 3 Development of occlusion 3 Classification and assessment of facial deformity
<b>Knowledge</b>	3 Physiology of mastication 3 Psychology of facial deformity 3 Norms of facial proportions 3 Techniques of cephalometric analysis 3 Potential complications 3 History and examination of the patient with facial deformity
<b>Clinical Skills</b>	2 Ability to formulate treatment plan 2 Orthognathic surgery techniques 2 Post-operative care and follow-up 3 Identification of relevant instruments and support staff 3 Approaches to the maxilla
<b>Technical Skills and Procedures</b>	3 Safe use of power tools 3 Plating and fixation skills 3 Control of haemorrhage 3 Intermaxillary fixation techniques
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Intermediate</a> section for

these skills

<b>Topic</b>	<b>Zygomatic osteotomy</b>
<b>Category</b>	Orthognathic Surgery
<b>Sub-category:</b>	None
<b>Objective</b>	<i>Can perform complete task without direct supervision of scrubbed trainer</i>
<b>Knowledge</b>	3 Developmental anatomy of facial skeleton / orbits 3 Classification and assessment of facial deformity 3 Psychology of facial deformity 3 Norms of facial proportions 2 Techniques of cephalometric analysis 3 Potential complications 3 History and examination of the patient with facial deformity 2 Ability to formulate treatment plan
<b>Clinical Skills</b>	2 Orthognathic surgery techniques 2 Post-operative care and follow-up 3 Identification of relevant instruments and support staff 2 Approaches to the zygoma
<b>Technical Skills and Procedures</b>	2 Safe use of power tools 3 Plating and fixation skills 3 Control of haemorrhage
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Intermediate</a> section for these skills

<b>Topic</b>	<b>Harvest of bone graft (Extra-oral sites)</b>
<b>Category</b>	Reconstructive Surgery
<b>Sub-category:</b>	None
<b>Objective</b>	<i>Can perform complete task without direct assistance of scrubbed trainer.</i>
<b>Knowledge</b>	3 Anatomy and physiology of limbs, pelvis and skull 3 Understanding of bone healing 3 Advantages and disadvantages of various sites 3 Use of alternative procedures 3 Potential complications 3 Identification of relevant instruments and support staff 4 Aseptic preparation
<b>Clinical Skills</b>	2 Skin incisions and approaches to bone graft sites 2 Use of bone instruments / harvesting of bone 2 Insetting and fixation of bone graft 2 Management of donor site and closure
<b>Technical Skills and Procedures</b>	<b>Proper positioning of the patient preoperatively, where appropriate, an understanding of application and safe use of tourniquets</b>
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Intermediate</a> section for these skills

<b>Topic</b>	<b>Pedicle flaps</b>
<b>Category</b>	Reconstructive Surgery



<b>Sub-category:</b>	None
<b>Objective</b>	<i>Can perform complete task without direct assistance of scrubbed trainer.</i> 3 Anatomy of donor sites and principles of blood supply to skin, fascia and muscle
<b>Knowledge</b>	3 Indications for different types of flap 3 Limitation of techniques 3 Potential complications
<b>Clinical Skills</b>	3 Identification of relevant instruments and support staff 3 Raising of pedicled cutaneous, muscle and myocutaneous flaps 3 Insetting of flap 3 Management of donor site and closure 3 Management of complications
<b>Technical Skills and Procedures</b>	<b>Understanding and safe positioning of patient for procedure</b>
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Intermediate</a> section for these skills

<b>Topic</b>	<b>Free tissue transfer</b>
<b>Category</b>	Reconstructive Surgery
<b>Sub-category:</b>	None
<b>Objective</b>	<i>Can perform complete task without direct assistance of scrubbed trainer</i> 3 Anatomy of donor sites and principles of blood supply to skin, fascia and muscle
<b>Knowledge</b>	3 Anatomy of neck vessels 3 Indications for different types of flap 2 Principles of microvascular anastomosis 3 Limitation of techniques 3 Potential complications
<b>Clinical Skills</b>	3 Identification of relevant instruments and support staff 2 Raising of soft tissue and composite flaps 2 Insetting of flap 3 Use of operating microscope and loupes 2 Preparation of donor and recipient vessels 2 Arterial and venous microvasacular anastomosis 2 Management of donor site and closure 3 Management of complications
<b>Technical Skills and Procedures</b>	<b>understanding of and safe use of tourniquets</b>
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Intermediate</a> section for these skills

# Final Stage

## Overview of the Final Stage

The purpose of the final stage is to allow a trainee to acquire and develop the specialist skills, knowledge and attitude that will allow final progress towards and achievement of a CCT in the specialty, with the beginning of special interest training as appropriate.

The final stage of specialist training will complete exposure to the essential aspects of oral and maxillofacial surgery and increase exposure to special interest areas of choice. By the end of ST8 all trainees including those who have followed an academic pathway should have acquired the competencies and specialist surgical skills that will form the basis for safe clinical practice in the generality of the specialty. The logbook should record further development of operative skills and any deficiency in experience or competency during levels 1-4 must be corrected during this period. Most trainees will identify areas of special interest during this final period of essential training and individual logbooks will probably reflect a bias towards these chosen aspects of clinical practice.

Typical areas of special interest relevant to oral and maxillofacial surgery are:

- Craniofacial trauma and secondary reconstruction
- Craniofacial surgery for congenital and acquired deformity
- Osseodistraction of the facial skeleton
- Cleft lip and palate
- Head and neck oncology
- Advanced reconstruction of the mouth, face and jaws (including free tissue transfer)
- Osseointegrated implant techniques and surgery for rehabilitation of the head and neck cancer patient
- Aesthetic maxillofacial surgery
- Temporomandibular joint surgery and reconstruction

Attendance at relevant courses and regional study days, national and international conferences will be expected. Trainees should continue to develop their experience in audit, research, teaching, presentations and contributing to the specialty literature.

By the end of ST6 the trainee will have encountered and should be able manage competently the following conditions, in addition to those in the preceding stages, up to and including operative intervention:

- Diagnosis and management of patient requiring extra-oral and intra-oral osseointegrated implant rehabilitation
- Diagnosis and assessment of patient requiring rhinoplasty

During this stage the trainee will gain competence to the level defined in the syllabus in a number of technical skills and procedures. A trainee would be expected to be able to perform all of the procedures listed below without the direct scrubbed assistance or supervision of a trainer **in addition** to those identified in the initial and intermediate stages. The list is not exhaustive, although it covers most of the common procedures expected at this stage.

## Maxillofacial trauma

- Repair of lacrimal/parotid duct injury

- Repair of facial nerve injury
- Open reduction and fixation of symphysis/body/angle of fractured mandible
- Open reduction and internal fixation of condylar neck of mandible
- Elevation of fractured zygoma
- Open reduction and fixation of fractured zygoma
- Orbital floor/wall exploration and repair/graft
- Reduction and fixation fractured maxilla (Le Fort II/III)
- Open reduction and fixation of naso-orbito-ethmoid complex fracture
- Reduction and fixation of frontal bone fracture

## **Salivary gland surgery**

- Removal of stone from submandibular duct
- Excision of neoplasm of minor salivary gland
- Sublingual gland excision
- Submandibular gland excision
- Partial/superficial parotidectomy
- Total conservative parotidectomy
- Radical parotidectomy

## **Orthognathic surgery**

- Genioplasty
- Mandibular ramus osteotomy
- Le Fort I maxillary osteotomy
- Le Fort II/III maxillary osteotomy
- Zygomatic/orbital osteotomy
- Mandibular osteodistraction procedures
- Maxillary osteodistraction procedures

## **Temporomandibular joint surgery**

- Arthrocentesis
- Arthroscopy
- Open operation on capsule/disc/condylar head
- Surgery for recurrent TMJ dislocation
- Excision of benign odontogenic tumours
- Excision of fibro-osseous jaw tumours/dysplasia

## **Neck surgery**

- Excision of lymphoepithelial (branchial) cyst
- Excision of thyroglossal cyst/fistula
- Selective neck dissection
- Comprehensive neck dissection

## **Resection of malignant tumours**

- Excision of tongue/oro-pharyngeal tumour
- Resection of mandible/maxilla
- Orbital exenteration

- Reconstructive surgery

## Harvest of skin graft

- Harvest of non-vascularised extra-oral bone graft
- Mandibular reconstruction with non-vascularised bone graft
- Pedicled muscle/fascial/myocutaneous flap
- Vascularised free tissue transfer

## Osseointegrated implant surgery

- Insertion of extra-oral implants/abutments
- Insertion of intra-oral implants/abutments
- Sinus lift/onlay graft

## Aesthetic surgery

- Cervico-facial liposuction
- Rhinoplasty
- Zygomatic/chin/nasal onlays
- Pinnaplasty
- Blepharoplasty
- Browlift

## Neural surgery

- Harvest of peripheral nerve (e.g.sural)
- Lingual nerve exploration/repair
- Facial nerve repair/graft

Click on [Workplace Based Assessments](#) to view the assessment forms including DOPS and PBAs

## Topics

<b>Topic</b>	<b>Nasal Fractures</b>
<b>Category</b>	Cranio Maxillofacial Trauma
<b>Sub-category:</b>	Facial Fractures
<b>Objective</b>	<p><i>To be able to assess an injured patient presenting either acutely or in the out-patient clinic</i></p> <p><i>To be able to formulate a differential diagnosis and an investigation and management plan</i></p> <p><i>To be able to treat the patient appropriately up to and including operative intervention if appropriate</i></p> <p><i>To be able to communicate the above information at the required level to patients/carers/other team members</i></p>
<b>Knowledge</b>	<p>4 Aetiology of facial trauma</p> <p>4 Priorities of management</p> <p>4 Assessment of airway and level of consciousness (Glasgow coma scale)</p> <p>4 Signs and symptoms of fractures of facial skeleton</p> <p>4 Eyes/ears assessment</p>

4 Investigations and radiographic interpretation

4 Anatomy of mouth, jaws, teeth and supporting structures and relevance to dental occlusion where appropriate

4 Anatomy of trigeminal nerve and infiltration / nerve block anaesthesia

4 Classification of dental trauma and dento-alveolar fractures

4 Assessment of head injury and cranial nerve function

4 Aetiology

4 Interpretation of radiographs

4 Potential complications

4 Pharmacology and therapeutics of post-operative analgesia

4 Anatomy of facial skeleton

4 Physiology of nasal cavity

4 Anatomy of scalp, facial skeleton, orbit and contents

4 Anatomy of eyelids

4 Classification of facial fractures

4 Physiology of sight and oculomotor function

4 Available techniques

4 Anatomy of facial skeleton, teeth and supporting structures

4 Dental occlusion

4 General assessment of the traumatised patient

4 Assessment and examination of patient with facial trauma

**Clinical Skills** 4 Airway management and emergency treatment of facial trauma

4 Ability to formulate a treatment plan and prioritise management

4 Pain control /prevention of infection

4 infiltration / nerve block anaesthesia

4 Clinical examination of facial skeleton and cranial nerves

**Technical Skills and Procedures** 4 Carry out of steps of procedure safely and correctly

4 Manipulation of nasal bones and septum

4 Management of epistaxis

4 Nasal packing and external splintage

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** **Fractured Zygoma**

**Category** Cranio Maxillofacial Trauma

**Sub-category:** Facial Fractures

*To be able to assess an injured patient presenting either acutely or in the out-patient clinic*

*To be able to formulate a differential diagnosis and an investigation and management plan*

**Objective** *To be able to treat the patient appropriately up to and including operative intervention if appropriate*

*To be able to communicate the above information at the required level to patients/carers/other team members*

**Knowledge** 4 Aetiology of facial trauma

4 Priorities of management

4 Assessment of airway and level of consciousness (Glasgow coma scale)

- 4 Signs and symptoms of fractures of facial skeleton
- 4 Eyes/ears assessment
- 4 Investigations and radiographic interpretation
  
- 4 Anatomy of mouth, jaws, teeth and supporting structures
- 4 Anatomy of trigeminal nerve and infiltration / nerve block anaesthesia
- 4 Classification of dental trauma and dento-alveolar fractures
- 4 Assessment of head injury and cranial nerve function
- 4 Aetiology
- 4 Interpretation of radiographs
- 4 Potential complications
- 4 Pharmacology and therapeutics of post-operative analgesia
  
- 4 Anatomy of facial skeleton
- 4 Physiology of nasal cavity
  
- 4 Anatomy of scalp, facial skeleton, orbit and contents
- 4 Anatomy of eyelids
- 4 Classification of facial fractures
- 4 Physiology of sight and oculomotor function
- 4 Available techniques

**Clinical Skills**

- 4 Anatomy of facial skeleton, teeth and supporting structures
- 4 Dental occlusion
- 4 General assessment of the traumatised patient
- 4 Assessment and examination of patient with facial trauma
- 4 Airway management and emergency treatment of facial trauma
- 4 Ability to formulate a treatment plan and prioritise management
- 4 Pain control /prevention of infection
- 4 infiltration / nerve block anaesthesia

**Technical Skills and Procedures**

- 4 Clinical examination of facial skeleton and cranial nerves
- 4 Basic ophthalmic and orthoptic assessment
- 4 Carry out of steps of procedure safely and correctly
- 4 Techniques of exposure of fracture site(s) and bone manipulation
- 4 Plate handling skills
- 4 Soft tissue handling and suturing techniques

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

<b>Topic</b>	<b>Fracture of mandible (excluding condyle)</b>
<b>Category</b>	Cranio Maxillofacial Trauma
<b>Sub-category:</b>	Facial Fractures
<b>Objective</b>	<p><i>To be able to assess an injured patient presenting either acutely or in the out-patient clinic</i></p> <p><i>To be able to formulate a differential diagnosis and an investigation and management plan</i></p> <p><i>To be able to treat the patient appropriately up to and including operative intervention if appropriate</i></p> <p><i>To be able to communicate the above information at the required level to patients/carers/other team members</i></p>
<b>Knowledge</b>	4 Aetiology of facial trauma

- 4 Priorities of management
- 4 Assessment of airway and level of consciousness (Glasgow coma scale)
- 4 Signs and symptoms of fractures of facial skeleton
- 4 Eyes/ears assessment
- 4 Investigations and radiographic interpretation

- 4 Anatomy of mouth, jaws, teeth and supporting structures
- 4 Anatomy of trigeminal nerve and infiltration / nerve block anaesthesia
- 4 Classification of dental trauma and dento-alveolar fractures
- 4 Assessment of head injury and cranial nerve function
- 4 Aetiology
- 4 Interpretation of radiographs
- 4 Potential complications
- 4 Pharmacology and therapeutics of post-operative analgesia

- 4 Anatomy of facial skeleton
- 4 Physiology of nasal cavity

- 4 Anatomy of scalp, facial skeleton, orbit and contents
- 4 Anatomy of eyelids
- 4 Classification of facial fractures
- 4 Physiology of sight and oculomotor function
- 4 Available techniques

- 4 Anatomy of facial skeleton, teeth and supporting structures
- 4 Dental occlusion

**Clinical Skills**

- 4 General assessment of the traumatised patient
- 4 Assessment and examination of patient with facial trauma
- 4 Airway management and emergency treatment of facial trauma
- 4 Ability to formulate a treatment plan and prioritise management
- 4 Pain control /prevention of infection
- 4 infiltration / nerve block anaesthesia
- 4 Clinical examination of teeth, oral cavity, facial skeleton and cranial nerves
- 4 Carry out of steps of procedure safely and correctly

**Technical Skills and Procedures**

- 4 Techniques for removal of damaged teeth/retained roots
- 4 Techniques of exposure of fracture site(s) and bone manipulation
- 4 Plate handling skills
- 4 Techniques of intermaxillary fixation
- 4 Intra/extra-oral soft tissue handling and suturing techniques

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** Fracture of mandibular condyle  
**Category** Cranio Maxillofacial Trauma  
**Sub-category:** Facial Fractures

**Objective** *To be able to identify a patient who has sustained this injury.  
 To be alert for the potential for this injury to occur.  
 To understand the principles of surgical management of this injury.  
 To be able to carry out these procedures safely and competently*

**Knowledge** 4 Anatomy of facial skeleton, TM joint, parotid gland, facial nerve  
 4 Classification of condylar fractures

	<ul style="list-style-type: none"> <li>4 Assessment of head injury and cranial nerve function</li> <li>4 Dental occlusion</li> <li>4 Selection and interpretation of relevant imaging</li> <li>4 Understanding the benefits and indications of both open and closed treatments</li> <li>4 Potential complications long and short term</li> </ul>
<b>Clinical Skills</b>	<ul style="list-style-type: none"> <li>4 Ability to correctly interpret physical signs and relevant imaging</li> <li>4 Clinical examination of teeth, oral cavity, facial skeleton and cranial nerves</li> <li>4 Demonstrates clinical judgment appropriate to injury and patient needs</li> </ul> <p>Closed reduction:</p> <ul style="list-style-type: none"> <li>4 Carry out of steps of procedure safely and correctly</li> <li>4 Techniques for removal of damaged teeth / retained roots</li> <li>4 Techniques of intermaxillary fixation</li> </ul>
<b>Technical Skills and Procedures</b>	<p>Open Reduction:</p> <ul style="list-style-type: none"> <li>4 Carry out of steps of procedure safely and correctly</li> <li>4 Techniques for removal of damaged teeth / retained roots</li> <li>4 Techniques for exposure of fracture site and manipulation of condylar fragment</li> <li>4 Plate handling skills</li> <li>4 Techniques of intermaxillary fixation</li> </ul>
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Final</a> section for these skills

<b>Topic</b>	<b>Fracture of maxilla</b>
<b>Category</b>	Cranio Maxillofacial Trauma
<b>Sub-category:</b>	Facial Fractures
<b>Objective</b>	<p><i>To be able to identify a patient who has sustained this injury.</i></p> <p><i>To be alert for the potential for this injury to occur.</i></p> <p><i>To understand the principles of surgical management of this injury.</i></p> <p><i>To be able to carry out these procedures safely and competently</i></p>
<b>Knowledge</b>	<ul style="list-style-type: none"> <li>4 Anatomy of facial skeleton</li> <li>4 Classification of mid -facial fractures</li> <li>4 Bone healing</li> <li>4 Head injury and cranial nerve function</li> <li>4 Dental occlusion</li> <li>4 Available techniques e.g. open fixation, closed fixation techniques</li> <li>4 Potential complications</li> <li>4 Awareness of possibility of other associated fractures</li> <li>4 Understanding the role of the maxillofacial technician</li> <li>4 Systematic clinical examination of teeth, oral cavity, facial skeleton and cranial nerves</li> </ul>
<b>Clinical Skills</b>	<ul style="list-style-type: none"> <li>4 Interpretation of radiographs/scans</li> <li>4 Assessment of head injury and cranial nerve function</li> <li>4 Selection of treatment plan appropriate to the patients injury</li> <li>4 An awareness of other factors affecting timing of surgery</li> <li>4 Involving the maxillofacial technician in treatment planning</li> </ul>
<b>Technical Skills and Procedures</b>	<ul style="list-style-type: none"> <li>4 Carry out of steps of procedure safely and correctly</li> <li>4 Techniques for removal of damaged teeth / retained roots</li> </ul>



- 4 Techniques for exposure of fracture sites and reduction of fragments
- 4 Plate handling skills
- 4 Techniques of intermaxillary fixation
- 4 Techniques of cranio-maxillary fixation

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

<b>Topic</b>	<b>Fracture of orbital floor</b>
<b>Category</b>	Cranio Maxillofacial Trauma
<b>Sub-category:</b>	Facial Fractures
<b>Objective</b>	<p><i>To be able to identify a patient who has sustained this injury.</i></p> <p><i>To be alert for the potential for this injury to occur.</i></p> <p><i>To understand the principles of surgical management of this injury.</i></p> <p><i>To be able to carry out these procedures safely and competently</i></p>
<b>Knowledge</b>	<ul style="list-style-type: none"> <li>4 Anatomy and physiology of facial skeleton, orbit and contents</li> <li>4 Awareness of head injury and cranial nerve function</li> <li>4 Potential for complications involving sight and early involvement where appropriate of ophthalmologists/orthoptists</li> <li>4 Surgical approaches to the orbit</li> <li>4 Available techniques for orbital wall reconstruction</li> <li>4 Potential complications</li> </ul>
<b>Clinical Skills</b>	<ul style="list-style-type: none"> <li>4 Clinical examination of eyes, facial skeleton and cranial nerves</li> <li>4 Assessment of head injury and cranial nerve function</li> <li>4 Choice of appropriate surgical technique</li> <li>4 Interpretation of radiographs/scans</li> </ul>
<b>Technical Skills and Procedures</b>	<ul style="list-style-type: none"> <li>4 Carry out of steps of procedure safely and correctly</li> <li>4 Assessment of eye function</li> <li>4 Techniques for approach to orbital floor</li> <li>4 Safe exposure of fracture sites and reduction of fragments</li> <li>4 Bone grafting and plating skills</li> </ul>

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

<b>Topic</b>	<b>Fracture of frontal bones and craniofacial fractures</b>
<b>Category</b>	Cranio Maxillofacial Trauma
<b>Sub-category:</b>	Facial Fractures
<b>Objective</b>	<p><i>Can perform complete task without direct assistance of scrubbed trainer.</i></p>
<b>Knowledge</b>	<ul style="list-style-type: none"> <li>4 Anatomy of craniofacial skeleton, nasal bones, orbit and contents</li> <li>4 Classification of facial fractures</li> <li>4 Assessment of head injury and cranial nerve function</li> <li>4 Interpretation of radiographs/scans</li> <li>4 Available techniques</li> <li>4 Potential complications</li> </ul>
<b>Clinical Skills</b>	<ul style="list-style-type: none"> <li>4 Anatomy of craniofacial skeleton, frontal bones, nasal bones, orbit and contents</li> <li>4 Anatomy and physiology of frontal sinus drainage</li> <li>4 Classification of frontal bone and facial fractures</li> <li>4 Clinical examination of eyes, facial skeleton and cranial nerves</li> <li>4 Carry out of steps of procedure safely and correctly</li> </ul>

Fracture of frontal bones and craniofacial fractures:

- Technical Skills and Procedures**
- 4 Techniques for approach to frontal bone fractures
  - 4 Safe exposure of fracture sites and reduction of fragments
  - 4 Management of frontal sinus involvement
  - 4 Bone grafting and plating skills

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

- Topic** **Fractures of Naso-orbito-ethmoid complex**
- Category** Cranio Maxillofacial Trauma
- Sub-category:** Facial Fractures
- Objective** *Can perform complete task without direct assistance of scrubbed trainer.*
- 4 Anatomy of craniofacial skeleton, nasal bones, orbit and contents
  - 4 Classification of facial fractures
  - 4 Assessment of head injury and cranial nerve function
  - 4 Interpretation of radiographs/scans
  - 4 Available techniques
- Knowledge**
- 4 Potential complications
- Clinical Skills**
- 4 Anatomy of craniofacial skeleton, frontal bones, nasal bones, orbit and contents
  - 4 Anatomy and physiology of frontal sinus drainage
  - 4 Classification of frontal bone and facial fractures
  - 4 Clinical examination of eyes, facial skeleton and cranial nerves
  - 4 Carry out of steps of procedure safely and correctly
- Fractures of naso-orbito-ethmoid complex:
- Technical Skills and Procedures**
- 4 Techniques for approach to naso-ethmoid complex
  - 4 Safe exposure of fracture sites and reduction of fragments
  - 4 Bone grafting and plating skills

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

- Topic** **Dental Trauma and dento-alveolar fractures**
- Category** Cranio Maxillofacial Trauma
- Sub-category:** Facial Fractures
- Objective**
- To be able to assess an injured patient presenting either acutely or in the out-patient clinic*
  - To be able to formulate a differential diagnosis and an investigation and management plan*
  - To be able to treat the patient appropriately up to and including operative intervention if appropriate*
  - To be able to communicate the above information at the required level to patients/carers/other team members*
- Knowledge**
- 4 Aetiology of facial trauma
  - 4 Priorities of management
  - 4 Assessment of airway and level of consciousness (Glasgow coma scale)
  - 4 Signs and symptoms of fractures of facial skeleton

- 4 Eyes/ears assessment
- 4 Investigations and radiographic interpretation
- 4 Anatomy of mouth, jaws, teeth and supporting structures
- 4 Anatomy of trigeminal nerve and infiltration / nerve block anaesthesia
- 4 Classification of dental trauma and dento-alveolar fractures
- 4 Assessment of head injury and cranial nerve function
- 4 Aetiology
- 4 Interpretation of radiographs
- 4 Potential complications
- 4 Pharmacology and therapeutics of post-operative analgesia

- 4 Anatomy of facial skeleton
- 4 Physiology of nasal cavity

- 4 Anatomy of scalp, facial skeleton, orbit and contents
- 4 Anatomy of eyelids
- 4 Classification of facial fractures
- 4 Physiology of sight and oculomotor function
- 4 Available techniques

- 4 Anatomy of facial skeleton, teeth and supporting structures
- 4 Dental occlusion

**Clinical Skills**

- 4 General assessment of the traumatised patient
- 4 Assessment and examination of patient with facial trauma
- 4 Airway management and emergency treatment of facial trauma
- 4 Ability to formulate a treatment plan and prioritise management
- 4 Pain control /prevention of infection
- 4 infiltration / nerve block anaesthesia
- 4 Clinical examination of oral cavity, facial skeleton and cranial nerves

**Technical Skills and Procedures**

- 4 Local anaesthetic and sedation techniques
- 4 Carry out of steps of procedure safely and correctly
- 4 Techniques for removal of damaged teeth/retained roots
- 4 Techniques of preservation of damaged teeth, reduction and fixation
- 4 Intra-oral soft tissue handling and suturing techniques

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

<b>Topic</b>	<b>Reconstruction of temporomandibular joint</b>
<b>Category</b>	Temporomandibular Disorders
<b>Sub-category:</b>	None
<b>Objective</b>	<i>Can perform complete task without direct supervision of scrubbed trainer.</i>
<b>Knowledge</b>	<ul style="list-style-type: none"> <li>4 Applied anatomy of temporomandibular joint and surrounding structures</li> <li>4 Aetiology of TMJ ankylosis</li> <li>4 Aetiology of failure of development of TMJ</li> <li>4 Indications for joint replacement or reconstruction               <ul style="list-style-type: none"> <li>1 Knowledge of alloplastic joint replacements</li> </ul> </li> </ul>
<b>Clinical Skills</b>	4 Identification of relevant instruments and support staff
<b>Technical Skills and Procedures</b>	<ul style="list-style-type: none"> <li>4 Approaches to the TMJ and mandibular ramus</li> <li>3 Harvest of costochondral graft</li> <li>4 Bone plating skills</li> </ul>

3 (Optional: Selection and fitting of alloplastic joint replacement)

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

<b>Topic</b>	<b>Intra-capsular TMJ and condylar head pathology</b>
<b>Category</b>	Temporomandibular Disorders
<b>Sub-category:</b>	None
<b>Objective</b>	<i>Can perform complete task without direct supervision of scrubbed trainer.</i>
	4 Applied anatomy of temporomandibular joint
	4 Causes of TMJ/capsular/meniscal pathology
<b>Knowledge</b>	4 Procedures available
	4 Indications for open surgery
	4 Potential complications
<b>Clinical Skills</b>	4 Identification of relevant instruments and support staff
<b>Technical Skills and Procedures</b>	4 Approaches to the TMJ and mandibular condyle
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Final</a> section for these skills

<b>Topic</b>	<b>Peri-operative care</b>
<b>Category</b>	Peri-operative care
<b>Sub-category:</b>	None
<b>Objective</b>	<i>To ensure the trainee has reached a level of competence in peri-operative care. The following should apply to each of the procedures in the common conditions and operative skills category.</i>
	Pre-operative Care
	4 Indications for surgery
	4 Required preparation for surgery to include necessary pre-operative investigations
	4 Outcomes and complications of surgery
	4 Knowledge of the admission process
	Intra-operative care
<b>Knowledge</b>	4 Anatomy to be encountered during procedure
	4 Steps involved in operative procedure
	4 Knowledge of alternative procedures in case of encountering difficulties
	Post-operative care
	4 Potential complications of procedure
	4 Outcomes of procedure
	4 Likely post-operative progress from disease process and intervention
	4 Physiological and pathological changes in condition as a result of intervention
	Pre-operative care
<b>Clinical Skills</b>	4 Synthesis of history and examination into operative management plan
	4 Ability to explain procedure and outcomes to patient and parents at an appropriate level
	4 To be able to take informed consent
	4 To construct an appropriate theatre list

4 Where appropriate to communicate with relevant other members of the theatre team e.g. anaesthetist, scrub nurse

Intra-operative care

4 Appropriate use of assistance

4 Communication with other members of theatre team

Post-operative Care

4 Assessment of patient and physiological parameters

4 Appropriate intervention to deal with changing parameters

4 Communication skills for dealing with team members, patients and carers

4 Ability to prioritise interventions

4 Recognition of complications of procedure

**Technical Skills and Procedures**

4 Necessary hand-eye dexterity to complete procedure

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** Osseodistractor techniques

**Category** Orthognathic Surgery

**Sub-category:** None

**Objective** *Can perform complete task without direct supervision of scrubbed trainer.*

4 Developmental anatomy of facial skeleton and facial musculature

4 Classification and assessment of facial deformity

4 Psychology of facial deformity

**Knowledge** 4 Norms of facial proportions

4 Techniques of cephalometric analysis

4 Theory of osseodistractor

4 Indications for intra-oral and extra-oral osseodistractor

4 Potential complications

**Clinical Skills** 4 Identification of relevant equipment and support staff

Osseodistractor techniques:

**Technical Skills and Procedures** 3 Techniques for placement of intra-oral and extra-oral distractors

4 Safe use of power tools

4 Pinning, plating and fixation skills

4 Post-operative management and supervision during active distraction.

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** Congenital or acquired loss of ear, orbital contents or nose

**Category** Patient requiring osseointegrated implants

**Sub-category:** None

**Objective** *To be able to assess a patient requiring implants presenting in the out-patient clinic*

*To be able to formulate a differential diagnosis and an investigation and management plan*

*To be able to treat the patient appropriately up to and including operative intervention if appropriate*

	<i>To be able to communicate the above information at the required level to patients/carers/other team members</i>
<b>Knowledge</b>	4 Aetiological factors and differential diagnosis 4 Specialised investigations 4 Understanding of principles of osseointegration and facial prostheses
<b>Clinical Skills</b>	4 History and examination of the patient with loss of facial tissues 4 Ability to formulate treatment plan
<b>Technical Skills and Procedures</b>	4 Osseointegration surgery techniques 4 Post-operative care and follow-up
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Final</a> section for these skills

<b>Topic</b>	<b>Congenital or acquired loss of teeth and/or alveolar supporting tissues for dental prostheses</b>
<b>Category</b>	Patient requiring osseointegrated implants
<b>Sub-category:</b>	None
	<i>To be able to assess a patient requiring implants presenting in the out-patient clinic</i>
	<i>To be able to formulate a differential diagnosis and an investigation and management plan</i>
<b>Objective</b>	<i>To be able to treat the patient appropriately up to and including operative intervention if appropriate</i> <i>To be able to communicate the above information at the required level to patients/carers/other team members</i>
<b>Knowledge</b>	4 Aetiological factors affecting dental loss and alveolar resorption 4 Specialised investigations and classification of alveolar resorption 4 Understanding of principles of osseointegration and implant borne/retained dental prostheses
<b>Clinical Skills</b>	4 History and examination of the patient with dental loss and/or alveolar resorption 4 Ability to formulate treatment plan
<b>Technical Skills and Procedures</b>	4 Osseointegration surgery techniques 4 Post-operative care and follow-up
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Final</a> section for these skills

<b>Topic</b>	<b>Nasal Deformity</b>
<b>Category</b>	Patients requiring rhinoplasty
<b>Sub-category:</b>	None
	<i>To be able to assess a patient requiring a rhinoplasty presenting in the out-patient clinic</i>
	<i>To be able to formulate a differential diagnosis and an investigation and management plan</i>
<b>Objective</b>	<i>To be able to treat the patient appropriately up to and including operative intervention if appropriate</i> <i>To be able to communicate the above information at the required level to patients/carers/other team members</i> <i>Can perform complete task without direct assistance of scrubbed trainer.</i>
<b>Knowledge</b>	4 Aetiological factors

- 4 Understanding of nasal anatomy and function
- 4 Understanding of facial aesthetics and age changes in facial tissues
- 4 Examination of nasal aesthetics and function
- 4 Specialised investigations
- 4 Understanding of psychological factors in facial deformity

- 4 Anatomy of nasal bones, cartilages and soft tissues
- 4 Physiology of nasal function
- 4 Facial aesthetics
- 4 Techniques of closed and open rhinoplasty
- 4 Principles and technique of septoplasty
- 4 Indications and limitations of procedures
- 4 Potential complications
- 4 History and examination of the patient with nasal deformity
- 4 Ability to formulate treatment plan

**Clinical Skills**

- 4 Identify relevant instruments and support staff
- 4 Rhinoplasty and septo-rhinoplasty techniques
- 4 Post-operative care and follow-up

**Technical Skills and Procedures**

- 4 Approach to and osteotomy of nasal bones
- 4 Exposure and handling of nasal cartilages / septum
- 4 Bone and cartilage grafting techniques
- 4 Wound closure and nasal packing / splinting

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** **Mandibular reconstruction (non-vascularised bone graft)**

**Category** Reconstructive Surgery

**Sub-category:** None

**Objective** *Can perform complete task without direct assistance of scrubbed trainer.*

- 4 Anatomy of mandible, neck and oral cavity
- 4 Understanding of bone healing and vascularisation
- 4 Advantages and disadvantages of various donor sites
- 4 Techniques of block and cancellous chip grafts
- 4 Use of alternative procedures (alloplasts)
- 4 Potential complications

**Knowledge**

- 4 Identification of relevant instruments and support staff
- 4 Harvesting of bone grafts

**Clinical Skills**

- 4 Insetting and fixation of bone graft
- 4 Plating skills
- 4 Management of donor site and closure
- 4 Management of complications

**Technical Skills and Procedures**

**Safe positioning of the anaesthetised patient for the procedure**

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** **Pedicled flaps**

**Category** Reconstructive Surgery

<b>Sub-category:</b>	None
<b>Objective</b>	<i>Can perform complete task without direct assistance of scrubbed trainer.</i> 4 Anatomy of donor sites and principles of blood supply to skin, fascia and muscle
<b>Knowledge</b>	4 Indications for different types of flap 4 Limitation of techniques 4 Potential complications 4 Identification of relevant instruments and support staff 3 Raising of pedicled cutaneous, muscle and myocutaneous flaps
<b>Clinical Skills</b>	4 Insetting of flap 4 Management of donor site and closure 4 Management of complications
<b>Technical Skills and Procedures</b>	application of suction drains and appropriate dressings
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Final</a> section for these skills

<b>Topic</b>	<b>Free tissue transfer</b>
<b>Category</b>	Reconstructive Surgery
<b>Sub-category:</b>	None
<b>Objective</b>	<i>Can perform complete task without direct assistance of scrubbed trainer</i> 4 Anatomy of donor sites and principles of blood supply to skin, fascia and muscle
<b>Knowledge</b>	4 Anatomy of neck vessels 4 Indications for different types of flap 4 Principles of microvascular anastomosis 4 Limitation of techniques 4 Potential complications 4 Identification of relevant instruments and support staff 3 Raising of soft tissue and composite flaps
<b>Clinical Skills</b>	4 Insetting of flap 4 Use of operating microscope and loupes 4 Preparation of donor and recipient vessels 4 Arterial and venous microvascular anastomosis 4 Management of donor site and closure 4 Management of complications
<b>Technical Skills and Procedures</b>	Ability to manage the instruments used. In microvascular anastomosis ability to use an operating microscope.
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Final</a> section for these skills



# Special Interest Stage

Cleft Lip and Palate Surgery deals with the soft and hard tissue deformities of the commonest orofacial congenital disorder. In collaboration with other medical and dental disciplines, and non-medical health professionals, the surgeon contributes to the correction of respiratory, hearing, feeding, speech and facial growth disorders and facial deformity. The diagnosis of some forms of clefting may be made by pre-natal ultrasound; thus the surgical care of cleft patients and their families may start before birth. It continues in many cases throughout childhood and adolescence and concludes only at the cessation of growth, and when the patient is satisfied with the result; or when further care is required only from a different discipline.

Special interest training in cleft lip and palate may commence only after the trainees have passed the inter-collegiate board examinations in the home specialty (see paragraph "Entry to training" below). Trainees will thus have proved abilities in the generality of their own specialty, including operative skills. They will also have acquired skills in diagnosis, investigation, non-operative management, and in communication with patients and colleagues. Specific skills involved in the multi-disciplinary delivery of health care to children will also have been developed.

## Cleft Lip and Palate – Service Need

Nationwide there are 11 Cleft centres, although the majority of them work on more than one hub site, and all of them work in collaboration with district hospital and community health services.

There are 1000 to 1200 new patients with clefts born each year. Because of the effects on facial growth, dentition, hearing and speech, psychological effects and the associations with other congenital anomalies and genetic disorders, the great majority of the patients need follow-up at least until the facial skeleton has ceased growing (age 16 roughly), and many need continuing care in the first few years of adulthood. This equates to follow-up lists totalling 12,000 children or more, and a number of adults. Surgeons of three different disciplines are involved at any or all stages of care (Plastic, Oral & Maxillofacial, Otorhinolaryngology).

The current staffing arrangements in the Cleft centres vary according to how much the surgeons contribute to the generality of their "home" specialty. There are a very few exclusively "cleft" surgeons but they are the minority, and it does not look as if this will be the pattern in the near future. There are around 30 surgeons nationally operating on infant patients, and some more (OMFS) surgeons operating on older children and adults. There will therefore only be opportunities for a maximum of one or two trainees per year to develop the special interest.

## Entry to training

Trainees wishing to pursue a special interest in Cleft Lip and Palate Surgery will be drawn from the following four specialties: Oral and Maxillo-Facial Surgery, Oto-rhino-laryngology (ENT), Paediatric Surgery and Plastic Surgery. Entry to Cleft Lip and Palate special interest training is by competitive interview. Candidates should either have passed the inter-collegiate board examination in their "home-specialty" or be within 6 months of taking it.

## Length of training

The training is competency based but it is anticipated that the period of training will take more than one year but not exceed two years.

It is expected that trainees will have acquired some exposure to the management of cleft patients in a training setting in their home specialty, or in allowed periods “out of programme”. Experience obtained in non-training settings (e.g. “Cleft camps”) cannot be counted in a trainee’s log-book. However, it is clear that skills acquired in this manner can be assessed subsequently in the training setting.

All training in Cleft Lip and Palate Surgery is acknowledged by the four contributing specialties as counting towards the acquisition of the Certificate of Completion of Training (CCT).

The training interface group recognises that training in Cleft Lip and Palate Surgery should take place with the full facilities of a Paediatric environment. A trainee with a special interest in Cleft Lip and Palate Surgery must be able to demonstrate that he/she can function as part of a multi-disciplinary team. He/she must also demonstrate an appropriate relationship, directly or by correspondence, with all other relevant Paediatric Departments and Specialists, including: Fetal Medicine, Clinical Genetics, Nutrition and Dietetics, Anaesthetics, General Paediatrics, Community Paediatrics.

The training will cover the full range of primary and secondary cleft surgical procedures. Some of the related procedures that the advanced trainee (and later the consultant) will undertake will depend on their parent speciality (e.g. insertion of grommets, aspects of dental surgical management).

The purpose of the syllabus is to guide trainees as to the skills they will need to develop, in a multi-disciplinary setting, to treat cleft children and assist their families.

Click on [Workplace Based Assessments](#) to view the assessment forms including DOPS and PBAs

## Topics

<b>Topic</b>	<b>Basic science</b>
<b>Category</b>	Cleft Lip and Palate Stage 1 Key Objectives to be Achieved in the First 6 Months
<b>Sub-category:</b>	Basic science as applied to Cleft surgery
<b>Objective</b>	<b>N/A</b> Oro-facial embryology Process and timing of facial, branchial arch and otological development Teratogenic effects  Genetics of cleft lip and palate and common cranio-facial syndromes Genetics of cleft lip and palate, cleft syndromes, common cranio-facial syndromes, cleft syndromes with risk of disability in other systems
<b>Knowledge</b>	Pathogenesis of cleft lip and palate Risk factors (medication and illness in pregnancy, family history, syndromes)  Basic knowledge of dental development Out-line of normal development of deciduous dentition, mixed dentition phase, permanent dentition Common dental anomalies in clefts  Surgical anatomy Skeleton and soft tissues of cleft and non-cleft patients, face, jaws, oral cavity,

pharynx, upper airway

Normal physiology of infants and children  
Cardio-respiratory physiology of newborn, energy requirements, growth, development milestones in the first year of life, IV fluid management, principles of resuscitation (APLS/PALS)

Normal oro-facial physiology  
Feeding mechanisms, swallowing, relation of infant feeding and later speech mechanisms, nasal and Eustachian tube and middle ear physiology

**Clinical Skills** None

**Technical Skills and Procedures** None

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** **History taking**

**Category** Cleft Lip and Palate Stage 1 Key Objectives to be Achieved in the First 6 Months

**Sub-category:** Patient/Parent management

**Objective** *None*

**Knowledge** Symptom patterns, pregnancy and family history  
Elicit relevant history

**Clinical Skills** Elicit pregnancy history  
Take history in difficult circumstances (English not first language, parents with psychological or social problems, confrontational parents)

**Technical Skills and Procedures** None

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** **Clinical Examination**

**Category** Cleft Lip and Palate Stage 1 Key Objectives to be Achieved in the First 6 Months

**Sub-category:** Patient/Parent management

**Objective** *None*

**Knowledge** Patterns of clinical signs in clefting  
Signs of appropriate development

**Clinical Skills** Appropriate explanation of procedure to parents  
Ability to examine without causing undue discomfort elicit signs and use appropriate equipment

**Technical Skills and Procedures** None

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** **Peri-operative management**

**Category** Cleft Lip and Palate Stage 1 Key Objectives to be Achieved in the First 6

	Months
<b>Sub-category:</b>	Patient/Parent management
<b>Objective</b>	<i>None</i>
<b>Knowledge</b>	Appropriate health for undergoing anaesthesia and operation Basic knowledge of anaesthesia for cleft infants Post-operative management, including introduction of feeding
<b>Clinical Skills</b>	Appropriate pre-operative examination Communication with anaesthetists Post-operative fluid management (Intravenous and oral) Use of prophylactic antibiotics
<b>Technical Skills and Procedures</b>	None
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Final</a> section for these skills

<b>Topic</b>	<b>Surgical Technique</b>
<b>Category</b>	Cleft Lip and Palate Stage 1 Key Objectives to be Achieved in the First 6 Months
<b>Sub-category:</b>	Patient/Parent management
<b>Objective</b>	<i>None</i>
<b>Knowledge</b>	Principles and techniques of primary cleft surgery of lip and palate Principles and techniques of secondary cleft surgery, including unilateral alveolar bone graft Demonstrates appropriate knowledge of surgical anatomy Demonstrates appropriate knowledge of operation rationale
<b>Clinical Skills</b>	Appropriate tissue handling Appropriate selection of instruments Appropriate selection of suture material
<b>Technical Skills and Procedures</b>	None
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Final</a> section for these skills

<b>Topic</b>	<b>Speech investigations</b>
<b>Category</b>	Cleft Lip and Palate Stage 1 Key Objectives to be Achieved in the First 6 Months
<b>Sub-category:</b>	Patient/Parent management
<b>Objective</b>	<i>None</i>
<b>Knowledge</b>	Indications for speech investigations Methods and limitations Radiation protection Assessing appropriateness of referral for speech investigations
<b>Clinical Skills</b>	Assessing likely cooperation of patient Basic interpretation of results
<b>Technical Skills and Procedures</b>	None
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Final</a> section for these skills

<b>Topic</b>	<b>Team working</b>
<b>Category</b>	Cleft Lip and Palate Stage 1 Key Objectives to be Achieved in the First 6 Months
<b>Sub-category:</b>	Multidisciplinary management
<b>Objective</b>	<i>None</i>
<b>Knowledge</b>	Understanding the expertise and role of other disciplines in cleft management
<b>Clinical Skills</b>	Effective communication with other disciplines Presentation of clinical cases
<b>Technical Skills and Procedures</b>	None
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Final</a> section for these skills

<b>Topic</b>	<b>Communication</b>
<b>Category</b>	Cleft Lip and Palate Stage 1 Key Objectives to be Achieved in the First 6 Months
<b>Sub-category:</b>	Multidisciplinary management
<b>Objective</b>	<i>None</i>
<b>Knowledge</b>	Methods and timing of involvement of other disciplines in cleft care
<b>Clinical Skills</b>	Appropriate involvement of other professionals
<b>Technical Skills and Procedures</b>	None
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Final</a> section for these skills

<b>Topic</b>	<b>Empathy and sensitivity, ethics, consent</b>
<b>Category</b>	Cleft Lip and Palate Stage 1 Key Objectives to be Achieved in the First 6 Months
<b>Sub-category:</b>	Multidisciplinary management
<b>Objective</b>	<i>None</i>
<b>Knowledge</b>	Range of patient and parent reaction to cleft deformity and its consequences Knowledge of ethical issues in cleft management
<b>Clinical Skills</b>	Identifying patients and parents concerns Take consent effectively for primary cleft operations Ability to discuss ethical issues and potential complications
<b>Technical Skills and Procedures</b>	None
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Final</a> section for these skills

<b>Topic</b>	<b>Antenatal diagnosis</b>
<b>Category</b>	Cleft Lip and Palate Stage 1 Key Objectives to be Achieved in the First 6 Months
<b>Sub-category:</b>	Multidisciplinary management
<b>Objective</b>	<i>None</i>

<b>Knowledge</b>	Possibilities and limitations of antenatal diagnosis Likelihood of undiagnosed coexistent abnormalities
<b>Clinical Skills</b>	Ability to ascertain details of antenatal diagnosis Ability to prioritise information Ability to use simple language in discussing diagnoses
<b>Technical Skills and Procedures</b>	None
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Final</a> section for these skills

<b>Topic</b>	<b>Organisation and planning</b>
<b>Category</b>	Cleft Lip and Palate Stage 1 Key Objectives to be Achieved in the First 6 Months
<b>Sub-category:</b>	Multidisciplinary management
<b>Objective</b>	<i>None</i>
<b>Knowledge</b>	Systematic approach to patient management Starting with important tasks
<b>Clinical Skills</b>	Improvement of efficiency Discussing prioritisation with colleagues in the team
<b>Technical Skills and Procedures</b>	None
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Final</a> section for these skills

<b>Topic</b>	<b>Data and record management</b>
<b>Category</b>	Cleft Lip and Palate Stage 1 Key Objectives to be Achieved in the First 6 Months
<b>Sub-category:</b>	Multidisciplinary management
<b>Objective</b>	<i>None</i>
<b>Knowledge</b>	Understand how data are recorded by different specialties in cleft management
<b>Clinical Skills</b>	Contribute accurate records Understand significance of data recorded by others
<b>Technical Skills and Procedures</b>	None
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Final</a> section for these skills

<b>Topic</b>	<b>Audit/Evidence based medicine</b>
<b>Category</b>	Cleft Lip and Palate Stage 1 Key Objectives to be Achieved in the First 6 Months
<b>Sub-category:</b>	Multidisciplinary management
<b>Objective</b>	<i>None</i>
<b>Knowledge</b>	Principles of EBM Important clinical trials in cleft management Ongoing audit in cleft management
<b>Clinical Skills</b>	Critically appraise evidence Competent use of paper and electronic data sources Ability to discuss evidence with parents and patients at appropriate level

Ability to carry out audit project

**Technical Skills and Procedures** None

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** **Research**

**Category** Cleft Lip and Palate Stage 1 Key Objectives to be Achieved in the First 6 Months

**Sub-category:** Multidisciplinary management

**Objective** *None*

**Knowledge** Place of research in aiding patient management  
Different methods of research and application of these

**Clinical Skills** Involvement in departmental research project  
Using critical analysis skills to determine research questions

**Technical Skills and Procedures** None

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** **Embryology**

**Category** Cleft Lip and Palate Stage 2 Objectives to be Achieved within 18 months

**Sub-category:** Core knowledge

**Objective** *None*

**Knowledge** Process and timing of facial, branchial arch and otological development  
Teratogenic effects

**Clinical Skills** Ability to relate deformity/anomaly to embryology

**Technical Skills and Procedures** None

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** **Genetics, syndromes**

**Category** Cleft Lip and Palate Stage 2 Objectives to be Achieved within 18 months

**Sub-category:** Core knowledge

**Objective** *None*

**Knowledge** Genetics of cleft lip and palate  
Cleft syndromes  
Common cranio-facial syndromes  
Cleft syndromes with risk of disability in other systems

**Clinical Skills** Sensitive discussion of new findings  
Use of clinical genetics inputs

**Technical Skills and Procedures** None

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

<b>Topic</b>	<b>Growth and development in infant/child nutrition</b>
<b>Category</b>	Cleft Lip and Palate Stage 2 Objectives to be Achieved within 18 months
<b>Sub-category:</b>	Core knowledge
<b>Objective</b>	<i>None</i>
	Cardio-respiratory physiology of newborn Energy requirements Growth Development milestones in the first year of life
<b>Knowledge</b>	IV fluid management Principles of resuscitation (APLS/PALS)
	Feeding mechanisms, swallowing, relation of infant feeding and later speech mechanisms, nasal and Eustachian tube and middle ear physiology
<b>Clinical Skills</b>	Use of growth charts, recognising growth/development exceptions in syndromic patients, appropriate referral of developmental delay, learning difficulties, childhood disability
<b>Technical Skills and Procedures</b>	None
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Final</a> section for these skills

<b>Topic</b>	<b>Speech Development</b>
<b>Category</b>	Cleft Lip and Palate Stage 2 Objectives to be Achieved within 18 months
<b>Sub-category:</b>	Core knowledge
<b>Objective</b>	<i>None</i>
	Feeding mechanisms, swallowing, relation of infant feeding and later speech mechanisms, nasal and Eustachian tube and middle ear physiology
<b>Knowledge</b>	Range of normal speech development mechanisms at risk in cleft, effect of otitis media with effusion, speech skills at school entry
<b>Clinical Skills</b>	Effective liaison with Speech Therapists, effective liaison with ENT, appropriate interventions in pre-school child and school child
<b>Technical Skills and Procedures</b>	None
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Final</a> section for these skills

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



## and Procedures

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

<b>Topic</b>	<b>Antenatal management</b>
<b>Category</b>	Cleft Lip and Palate Stage 2 Objectives to be Achieved within 18 months
<b>Sub-category:</b>	Antenatal management
<b>Objective</b>	<i>None</i>
<b>Knowledge</b>	Possibilities and limitations of antenatal diagnosis, likelihood of undiagnosed coexistent abnormalities Ability to ascertain details of antenatal diagnosis, ability to prioritise information, ability to use simple language in discussing diagnoses
<b>Clinical Skills</b>	Ability to conduct ante-natal counselling, demonstrate appropriate liaison with Fetal Medicine Department
<b>Technical Skills and Procedures</b>	None

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

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

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

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

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

<b>Topic</b>	<b>Counselling</b>
<b>Category</b>	Cleft Lip and Palate Stage 2 Objectives to be Achieved within 18 months
<b>Sub-category:</b>	Post natal management
<b>Objective</b>	<i>None</i>

<b>Knowledge</b>	Understanding of techniques and priorities of informing parents of new patients
<b>Clinical Skills</b>	Counselling parents of new patients, ability to use simple language, ability to demonstrate priorities to parents
<b>Technical Skills and Procedures</b>	None
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Final</a> section for these skills

<b>Topic</b>	<b>Principles of pre-surgical orthodontics</b>
<b>Category</b>	Cleft Lip and Palate Stage 2 Objectives to be Achieved within 18 months
<b>Sub-category:</b>	Post natal management
<b>Objective</b>	<i>None</i>
<b>Knowledge</b>	Awareness of orthodontic preferences, awareness of situations indicating pre-surgical orthodontics
<b>Clinical Skills</b>	Appropriate discussion with Orthodontic colleagues
<b>Technical Skills and Procedures</b>	None
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Final</a> section for these skills

<b>Topic</b>	<b>Primary lip repair</b>
<b>Category</b>	Cleft Lip and Palate Stage 2 Objectives to be Achieved within 18 months
<b>Sub-category:</b>	Primary surgery
<b>Objective</b>	<i>None</i>
<b>Knowledge</b>	Surgical anatomy, pathological anatomy, techniques and timing, rationale of different sequences
<b>Clinical Skills</b>	<b>N/A</b>
<b>Technical Skills and Procedures</b>	Operative skill to repair the lip and appropriate other structures according to Unit protocol
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Final</a> section for these skills

<b>Topic</b>	<b>Primary Palate repair</b>
<b>Category</b>	Cleft Lip and Palate Stage 2 Objectives to be Achieved within 18 months
<b>Sub-category:</b>	Primary surgery
<b>Objective</b>	<i>None</i>
<b>Knowledge</b>	Surgical anatomy, pathological anatomy, techniques and timing, rationale of different sequences
<b>Clinical Skills</b>	<b>N/A</b>
<b>Technical Skills and Procedures</b>	Operative skill to repair the palate and appropriate other structures according to Unit protocol
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Final</a> section for these skills

<b>Topic</b>	<b>Lip revision and fistula closure</b>
<b>Category</b>	Cleft Lip and Palate Stage 2 Objectives to be Achieved within 18 months

**Sub-category:** Secondary surgery  
**Objective** *None*  
**Knowledge** Appropriate assessment of lip/fistula disability, awareness of patient perceptions  
**Clinical Skills** None  
**Technical Skills and Procedures** Ability to make appropriate lip revision, ability to make appropriate fistula closure  
**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** **Investigation of velo-pharyngeal function**  
**Category** Cleft Lip and Palate Stage 2 Objectives to be Achieved within 18 months  
**Sub-category:** Secondary surgery  
**Objective** *None*  
**Knowledge** Indications for speech investigations, methods and limitations, radiation protection  
**Clinical Skills** **Basic understanding of Nasendoscopy**  
**Technical Skills and Procedures** Assessing appropriateness of referral for speech investigations, assessing likely co-operation of patient, basic interpretation of results  
 Full interpretation of the results and formation of clinical plan  
**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

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

**Topic** **Alveolar bone graft**  
**Category** Cleft Lip and Palate Stage 2 Objectives to be Achieved within 18 months  
**Sub-category:** Secondary surgery  
**Objective** *None*  
**Knowledge** Preparation for bone grafting, correct assessment of evolution of secondary dentition, understanding of orthodontic investigations and treatment  
**Clinical Skills** None  
**Technical Skills and Procedures** Surgical skills in alveolar bone grafting, correct peri-operative management  
**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** **Rhinoplasty**  
**Category** Cleft Lip and Palate Stage 2 Objectives to be Achieved within 18 months  
**Sub-category:** Secondary surgery  
**Objective** *None*  
**Knowledge** Anatomy and pathological anatomy of the cleft nose, understanding of corrective procedures  
**Clinical Skills** None  
**Technical Skills and Procedures** Demonstrate surgical skills in cleft rhinoplasty, management of cleft airway and nasal septum  
**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** **Cleft related orthognathic surgery**  
**Category** Cleft Lip and Palate Stage 2 Objectives to be Achieved within 18 months  
**Sub-category:** Secondary surgery  
**Objective** *None*  
**Knowledge** Understanding of anatomy and pathological anatomy, understanding of planning, surgical principles in orthognathic appliances and their usage, methods of distraction osteogenesis  
**Clinical Skills** None  
**Technical Skills and Procedures** Ability to perform orthognathic surgery under supervision  
**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** **Basic Otology and hearing assessment**  
**Category** Cleft Lip and Palate Stage 2 Objectives to be Achieved within 18 months  
**Sub-category:** Multidisciplinary teamworking  
**Objective** *None*  
**Knowledge** Interpretation of audiogram and tympanometry study, understanding the principles of brain stem evoked response audiometry  
**Clinical Skills** Ability to refer from appropriate history and audiogram  
**Technical Skills and Procedures** None  
**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** **Orthodontics**  
**Category** Cleft Lip and Palate Stage 2 Objectives to be Achieved within 18 months  
**Sub-category:** Multidisciplinary teamworking  
**Objective** *None*  
**Knowledge** Understanding of orthodontic role in cleft care, planning AGB, planning orthognathic surgery, orthodontic measurement of mid-facial growth  
**Clinical Skills** Appropriate liaison with Orthodontists

**Technical Skills and Procedures** None

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** **Speech and language therapy**

**Category** Cleft Lip and Palate Stage 2 Objectives to be Achieved within 18 months

**Sub-category:** Multidisciplinary teamworking

**Objective** *None*

**Knowledge** Speech and language therapy input into cleft management, tools for examining speech development, surgical and orthodontic assistance to speech therapy

**Clinical Skills** Appropriate liaison with Speech and language therapists, partaking in policy formation for patients concerning speech management

**Technical Skills and Procedures** None

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** **Paediatric and restorative dentistry**

**Category** Cleft Lip and Palate Stage 2 Objectives to be Achieved within 18 months

**Sub-category:** Multidisciplinary teamworking

**Objective** *None*

**Knowledge** Understanding of the role of Paediatric Dentists, understanding basics of oral and dental hygiene, understanding principles of restorative dentistry

**Clinical Skills** Appropriate referral to Paediatric and Restorative Dentist

**Technical Skills and Procedures** None

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** **Child and adolescent psychology**

**Category** Cleft Lip and Palate Stage 2 Objectives to be Achieved within 18 months

**Sub-category:** Multidisciplinary teamworking

**Objective** *None*

**Knowledge** Awareness of the role of Psychologists in childhood and adolescence, understanding of situations requiring psychology therapy

**Clinical Skills** Care in selection of appropriate patients/families for referral

**Technical Skills and Procedures** None

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** **Children with disabilities**

**Category** Cleft Lip and Palate Stage 2 Objectives to be Achieved within 18 months

**Sub-category:** Multidisciplinary teamworking

**Objective** *None*

<b>Knowledge</b>	Understanding the role of Community Paediatrics and associated professionals, special needs teaching, awareness of communication disorders
<b>Clinical Skills</b>	Appropriate liaison with community agencies, ability to write relevant reports
<b>Technical Skills and Procedures</b>	None
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Final</a> section for these skills

<b>Topic</b>	<b>Ethical issues</b>
<b>Category</b>	Cleft Lip and Palate Stage 2 Objectives to be Achieved within 18 months
<b>Sub-category:</b>	Multidisciplinary teamworking
<b>Objective</b>	<i>None</i>
<b>Knowledge</b>	Understanding of consent in older children and adolescents, Gillick competence, ethics of new procedures
<b>Clinical Skills</b>	Ability to take consent from older children and adolescents, ability to communicate medical ethics to parents and older children
<b>Technical Skills and Procedures</b>	None
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Final</a> section for these skills

<b>Topic</b>	<b>General paediatric issues</b>
<b>Category</b>	Cleft Lip and Palate Stage 2 Objectives to be Achieved within 18 months
<b>Sub-category:</b>	Multidisciplinary teamworking
<b>Objective</b>	<i>None</i>
<b>Knowledge</b>	Understanding resuscitation of children Understanding issues of non-accidental injury and child protection Maintenance of APLS/PALS skills
<b>Clinical Skills</b>	Ability to recognise signs of NAI, risk factors, family pathology, awareness of NAI referral pathways to child protection
<b>Technical Skills and Procedures</b>	None
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Final</a> section for these skills

<b>Topic</b>	<b>Management of residual cleft deformity in adults</b>
<b>Category</b>	Cleft Lip and Palate Stage 2 Objectives to be Achieved within 18 months
<b>Sub-category:</b>	Multidisciplinary teamworking
<b>Objective</b>	<i>None</i>
<b>Knowledge</b>	Understanding of situation at cessation of facial growth, basic understanding of nasal septal deformity, understanding of adult self-image problems, understanding of adult communication problems
<b>Clinical Skills</b>	Ability to assemble appropriate professionals to solve adults' concerns
<b>Technical Skills and Procedures</b>	None
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Final</a> section for these skills