

# **Oral Surgery Syllabus**

## **Introduction**

This Oral Surgery clinical syllabus has been designed to operate in association with the General Dental Council's 2023 specialty training curriculum for oral surgery; particularly to Section D, related to specialty specific content.

The clinical syllabus will be revised concomitantly with the curriculum on a 5-yearly basis by the Oral Surgery SAC. The evidence base and literature cited below are up to date as of September 2024, and reflect that trainees are expected to have knowledge of the contemporary evidence-base of oral surgery, as well as seminal studies.

The specialty training curriculum lists all the outcomes (skills, experience and knowledge) that trainees will need to be an oral surgery specialist and will be required to achieve prior to satisfactory completion of specialty training.

This specialty training clinical syllabus provides educators, trainers and trainees with an overall view of the clinical topics and activities that should be covered during training to achieve the required curriculum outcomes. The clinical syllabus content has been mapped across to the curriculum outcomes. Furthermore, the clinical syllabus content has been linked to the Intercollegiate Surgical Curriculum Programme (ISCP) portfolio, to guide educators, trainers and trainees during the training programme and ensure that the full breadth of topics have been covered during the training programme.

There is a generic professional content within the oral surgery curriculum (Section C) that is in common with the other dental specialties. Those outcomes will not be included as specific items within this OS syllabus.

## **Evidencing competencies**

### **Clinical Experience**

- To evidence clinical experience, trainees should record all procedures that they are involved with in their oral surgery e-logbook. This will include those that they may have observed, assisted with, performed, or even taught, along with the method of analgesia/anaesthesia used. The e-logbook will allow important and common conditions seen over the course of training to be recorded even when a procedure has not been carried out.

- The e-logbook will be supported by a range of Work Based Assessments (WBAs) assessed by clinical and educational supervisors who work with the trainee.
- Both items will be assessed at the RCPs (Review of Competency Progression).

### **Theoretical Knowledge**

- To evidence theoretical knowledge, trainees can use WBAs to record discussions involving those specific topics, such as CBDs.
- Trainees can also provide evidence of attendance at relevant courses and teaching sessions with thorough reflection on the competencies achieved.
- The specialty specific summative assessment will be an intercollegiate assessment by the Royal Colleges and will further demonstrate theoretical knowledge.

### **Professional knowledge and management**

- These skills will be evidenced by WBAs carried out by clinical and educational supervisors and other members of the wider healthcare team.

### **Underlying knowledge and skills common across all clinical domains**

#### **Anatomy**

Trainees should know:

- The detailed anatomy of the oral cavity, oropharynx and palate. To include:
  - The teeth, jaws, oral mucosa, salivary glands, oral and palatal musculature.
  - The innervation, arterial and venous blood supply, and lymphatic drainage.
  - The structure and function of oral mucosa.
- The functions of the maxilla and mandible, and related musculature including the physiology of the muscles of mastication.
- The anatomy of the face, including the surface anatomy, superficial structures (muscles of facial expression, nerves, arteries, veins, lymphatics, the parotid gland) and deep structures (the muscles of mastication, facial bones, the temporomandibular joint, and infratemporal fossa), nasal cavity and paranasal sinuses.
- The embryological development of the head and neck.
- How to apply anatomical knowledge to the examination of the patient and interpretation of images.
- The risks of surgery based on anatomical principles and apply anatomical knowledge to surgical procedures.

#### **Physiology**

Trainees should know:

- General physiological principles related to:
  - Wound healing including healing related to the dentoalveolar complex and nerve healing
  - Bone turnover and healing, including fracture healing
  - Fluid, electrolyte, and acid-base balance
  - Blood and haemostasis.
  - Nutrition and metabolism.
  - Osseointegration and tissue regeneration
  - Mechanisms of shock
  - Metabolic and immunological responses to trauma
  - Medical emergencies
  
- The physiology of specific organ systems relevant to oral surgery care including:
  - Cardiovascular physiology.
  - Respiratory physiology.
  - Gastrointestinal physiology.
  - Genitourinary physiology.
  - Breast, exocrine and endocrine physiology.
  - Central and peripheral nervous systems including principles of head injuries
  - Skin, lymphoreticular and musculoskeletal systems.

## **Pathology**

Trainees should know:

- General pathological principles including
  - Inflammation, immunity, and hypersensitivity including organ/transplant rejection.
  - Repair, regeneration and healing.
  - Necrosis and apoptosis.
  - Spread of infection, sepsis, and shock.
  - Carcinogenesis, biology of tumour growth, metastasis and the principles of grading and staging.
  - The pathophysiology related to medical emergencies
  - The pathology of specific organ systems relevant to oral surgery care including:
    - Cardiovascular pathology.
    - Respiratory pathology.
    - Gastrointestinal pathology.
    - Genitourinary disease.
    - Breast, exocrine and endocrine pathology.
    - Central and peripheral nervous systems.
    - Skin, lymphoreticular and musculoskeletal systems.

- Relevant classifications / guidelines:
  - WHO Classification of Head and Neck Tumours - 5<sup>th</sup> Edition (2022)
- Common causes of trauma to the dentition and facial skeleton
- Mechanisms, patterns, and classification systems of facial and dentoalveolar trauma

## **Microbiology**

Trainees should know:

- Principles of infection control and prevention, including sources of infection, asepsis, disinfection, and sterilisation.
- General pathology of bacterial, viral, fungal disease including mechanisms of injury and systemic sepsis.
- Soft tissue infections including cellulitis, abscesses, necrotising fasciitis, and gangrene.
- Hospital acquired infection, antibiotic governance/stewardship, and bacterial resistance.
- Prevention techniques of the transmission of blood born viral infection during surgery.

## **Medical physics**

Trainees should know:

- The relevant guidelines/standards/classifications
  - Selection Criteria for Dental Radiography – FGDP 2018
  - Guidance Notes for Dental Practitioners on the Safe use of X-ray Equipment 2nd Edition 2020. FGDP and Public Health England
  - Cone Beam for Dental and Maxillofacial Radiology Evidence – based Guidelines. SEDENTEXT 2012
  - The Oral Management of Oncology Patients requiring radiotherapy, chemotherapy and / or bone marrow transplantation – FDS RCS and British Society for Disability Oral Health 2018
- The principles of diagnostic and interventional imaging including plain and contrast radiography, ultrasound, CT, CBCT, MRI, PET and radionuclide imaging.
- The principles of diathermy, LASER, cryotherapy, lithotripsy and piezo surgery and aspiration.
- The principles of radiotherapy.
- The application of robotics and artificial intelligence to surgery.
- Properties of biomaterials including implants, plates, grafts and sutures
- The following guidelines:

## **Pharmacology**

Trainees should know:

- The basics of pharmacology in relation to prescribing and common drugs that patients will be prescribed
- In particular, drugs that impact on Oral Surgery treatment planning and management such as analgesics, antibiotics, antiplatelets, anticoagulants, immunosuppressive and bone modulating drugs
- The pharmacology and recommended modification in the perioperative period of the common agents used for the treatment of all acute and chronic concurrent systemic diseases such as:  
CVS/RS/Renal/Liver/Gastrointestinal/Diabetic/Epileptic/Bone/Rheumatological/Mental Health/Immunological diseases.
- The pharmacological principles of general anaesthesia, local anaesthesia, and sedative drugs.
- The pharmacological principles relevant to the treatment of malignancy.
- The pharmacological principles of immunosuppression and management of malignancy.
- The pharmacology and adverse effects of drugs used in the management of medical emergencies.
- How to safely prescribe drugs in primary and secondary care environments.
- The principles of pharmacovigilance including chemotherapeutic agents, anticoagulants, anti-resorptive, immunomodulatory drugs.

### **Overarching clinical skills**

Trainees should be able to:

- Undertake a holistic assessment of the patient (including social; family; medical; dental; mental health, pain and anxiety histories from a patient) requiring care who presents to an oral surgery or multidisciplinary clinic.
- Be able to conduct a thorough extra and intraoral examination, relevant to the condition the patient complained of/presented with.
- Clinically examine relevant cranial nerves, lymph nodes, salivary glands, and soft and hard tissues of the oral and maxillofacial region.
- Request and interpret appropriate investigations for the diagnosis and management of soft and hard tissue lesions and conditions, and oral mucosal, salivary and TMD disease.
- Be able to interpret CBCT scans, and plain film radiography of the jaws, maxillary antrum, TMJ and nasal area.
- Interpret imaging reports such as brain CT and MRI.
- Interpret radiographic reports to facilitate management specifically for salivary glands including ultrasound, sialography, plain films and cross-sectional imaging.
- Interpret results including histopathological reports, imaging reports, blood tests, microbiological reports and any other relevant diagnostic test report to plan patient care.

- Formulate an appropriate treatment plan considering the patient's wishes, anxieties, and risks and benefits of the treatment offered, and organise follow-up where required.
- Consent patients appropriately for treatment
- Offer evidence-based preventative oral healthcare advice.
- Be able to liaise with other specialties when appropriate (e.g., Oral Medicine, OMFS) and arrange timely referrals to other specialties where appropriate.
- Be able to consent patients appropriately for operative procedures
- Always demonstrate respect for patient dignity
- Be capable of recognising their own limits and seek help appropriately

## **Domain 1: Assessment, diagnosis and management of patients requiring dentoalveolar surgery**

### **1.1 Underlying knowledge**

### **1.2 Assessment and Diagnosis**

### **1.3 Types of dentoalveolar surgery**

#### **1.3.1 Exodontia**

#### **1.3.2 Auto transplantation**

#### **1.3.3 Orthodontic related procedures**

#### **1.3.4 Closure of oro-antral communications**

#### **1.3.5 Surgical endodontics**

#### **1.3.6 Biopsy techniques**

NB: other types of dentoalveolar surgery such as implants, management of hard and soft tissue lesions etc are covered in the appropriate domains

### **1.4 Pharmacology, Prescribing and therapeutics**

### **1.5 Clinical skills and operative management**

### **1.6 Multidisciplinary management**

## 1.1 Underlying knowledge

Trainees should know:

- The relevant classifications / guidelines / standards:
  - 2018 Implementation Advice for National Institute for Health and Care Excellence (NICE) Clinical Guidelines 64 Prophylaxis Against Infective Endocarditis– SDCEP Guidance
  - 2020. Guidelines for Periradicular Surgery by Qualtrough A, Alani A, Bandheri S, Mehta D. Ng Y, Saksena A, Tomson P, created in collaboration with the British Endodontic Society
  - 2020. Parameters of care for patients undergoing mandibular third molar surgery by Renton T, Coulthard P, Chiu G, Master S, Brookes V, Atack N, Weston P, Drage N, Dewan K, Bishop K, Odell E, Smith S, produced by FDS RCS Eng
  - 2022 Management of the Palatally Ectopic Maxillary Canine by Husain J, Burden D, McSherry P, Hania M . Clinical guidelines FDS RCS Eng
  - 2022. Management of Unerupted Maxillary Incisors by Yaqoob O, O'Neill J, Patel S et al. (Update of 1997 Guideline written by Burden D, Harper C, Mitchell L et al, previously updated in 2010 and 2016 by Yaqoob O, O'Neill J.)
  - 2022 Management of Dental Patients taking Anticoagulant or antiplatelet drugs 2nd Edition – SDCEP Guidance

## 1.2 Assessment and Diagnosis

Trainees should:

- Be able to assess a patient requiring dentoalveolar surgery
- Be able to determine when no treatment is the best option
- Have knowledge of 2D and 3D imaging techniques and understanding reports that may be required for diagnosis and planning of dentoalveolar surgery
- Have knowledge of common pathological conditions that may require dentoalveolar surgery and the investigations required

## 1.3 Types of dentoalveolar surgery

### 1.3.1 Exodontia

Trainees should:

- Be able assess impacted teeth and roots that may require dentoalveolar surgery including supplemental and supernumerary teeth.
- Be able to accurately assess the risks associated with removal of impacted teeth.
- Be able to select the most appropriate management for teeth whose removal is more likely to result in complications and be able to determine when the risks associated with the surgical procedure outweigh the benefits.
- Have knowledge of socket preservation techniques and when to use them
- Be able to assess when coronectomy is the appropriate treatment option and when no treatment or complete exodontia would be a better option.
- Be able to assess when complications have occurred and the best treatment option
- Be able to assess and appropriately manage teeth, roots or dental implants that are displaced including those in the maxillary sinus, lingual pouch and infratemporal fossa.

### **1.3.2 Auto transplantation**

Trainees should:

- Know the different auto transplantation techniques, and where they are indicated
- Be able to auto transplant teeth where appropriate and provide aftercare as needed as part of a multidisciplinary team.

### **1.3.3 Orthodontic related procedures**

Trainees should:

- Know of the different types of exposure techniques for impacted teeth
- Know the risks and benefits and indications of different exposure techniques for impacted teeth
- Be able to assess and treatment plan teeth for exposure techniques
- Be able to perform both open and closed exposure techniques and provide appropriate aftercare
- Know the uses of temporary anchorage devices and be able to place them where necessary in collaboration with orthodontic practitioners



### **1.3.4 Closure of oro-antral communications/fistulae**

Trainees should:

- Be able to assess and diagnose oro-antral communications/fistulae
- Be able to appropriately manage oro-antral communications/fistulae

### **1.3.5 Surgical endodontics**

Trainees should:

- Be able to assess teeth with periapical pathology and determine those that may benefit from surgical endodontic procedures
- Have knowledge and understanding of surgical endodontic techniques including different surgical approaches, equipment and restorative materials used.
- Be able to appropriately manage teeth with periapical pathology including where appropriate providing surgical endodontic procedures including retrograde endodontic procedures bearing in mind that in some cases the most appropriate treatment may involve liaising with another specialty (Endodontics/Restorative dentistry)
- Be able to describe reasons why orthograde and retrograde root treatment can fail.

### **1.3.6 Biopsy techniques**

Trainees should:

- Have knowledge of different biopsy techniques for soft and hard tissues of the oral cavity and perioral area
- Be able to carry out biopsies of hard and soft tissues of the oral cavity and perioral area where appropriate
- Be able to provide appropriate aftercare following biopsy procedures and ensure that patients are informed of their biopsy results in a sensitive and timely manner
- Be able to instigate further management/referral depending based on biopsy results if needed
- NB more details of biopsy requirements are included in Domains 5 and 6 of the syllabus.

### **1.3.7 Osseo integrated implants**

Trainees should:

- Have knowledge of different techniques for replacing teeth using osseo-integrated implants
- Be able to assess and treatment plan patients to undergo implant procedures to replace teeth
- Liaise with other specialties in the planning, placement, and maintenance of osseointegrated implants.

NB more details of implant requirements are included in Domain 7 of the syllabus

### **1.4 Pharmacology, Prescribing and therapeutics**

Trainees should:

- Have knowledge of the medications that may be required for patients undergoing dentoalveolar surgery
- Antimicrobials
- Analgesics
- Steroid Cover
- Biomaterials used for peri radicular surgery
- Have knowledge of medications that may affect patient care
  - Antiplatelet and anti-coagulants
  - Antiresorptive medications
  - Antiangiogenic medications
  - Biological and small molecule immunomodulators and targeted therapies

### **1.5 Clinical skills and operative management**

Trainees should:

- Be able to perform routine and surgical exodontia and root removal including designing and raising of a mucoperiosteal flap, bone removal, tooth and root division and removal, debridement, and suturing.
- Be capable of using surgical instruments including scalpels, diathermy, elevators, luxators, forceps and handpieces safely.
- Be capable of selecting and using the appropriate suture materials and techniques to close soft tissue wounds.
- Be able to carry out coronectomies appropriately.
- Be able to design and raise a mucoperiosteal flap, remove bone and access, debride and endodontically seal a tooth root requiring peri-radicular surgery.
- Have knowledge of and be able to recognise and manage appropriately the common complications that may occur following dentoalveolar surgery:
  - Dry socket
  - Infected socket
  - Non healing or delayed healing
  - Osteonecrosis
  - Osteoradionecrosis
  - Primary and secondary haemorrhage
  - Fractured tuberosity and fractured buccal plate
  - Oroantral communication and fistula
  - Displaced teeth and roots, including those displaced into the maxillary antrum /lingual pouch / infratemporal fossa
  - Displaced implants including those displaced into the maxillary antrum / lingual pouch / infratemporal fossa
  - Soft tissue injuries
  - TMJ injuries
  - Nerve injuries
- Be able to surgically expose teeth by different methods, open exposure or by bonding an orthodontic bracket onto a tooth in an appropriate position and attaching the chain in an appropriate position
- Be able to perform surgical procedures to close oro antral communications including fistula excision where appropriate, buccal advancement flaps, buccal fat pad flaps and rotational flaps, with or without adjunct materials
- Be able to undertake incisional and excisional biopsy techniques for the management of soft and hard tissue lesions in the mouth and perioral area
- Be able to place dental implants to replace missing teeth or provide denture abutments

## **1.6 Multidisciplinary management**

- Know the role of other specialties and healthcare teams in the management of patients requiring dentoalveolar surgery

- Be capable of liaising effectively and team working with other specialties in order to deliver the best possible care for patients

## **Domain 2: Assessment, diagnosis and management of patients with hard or soft tissue trauma**

### **2.1 Underlying knowledge**

### **2.2 Assessment and Diagnosis**

### **2.3 Types of hard and soft tissue trauma**

#### **2.3.1 Trauma to the dentition**

#### **2.3.2 Alveolar fractures**

#### **2.3.3 Mandibular, Maxillary and facial bone fractures**

#### **2.3.4 Soft tissue injuries**

#### **2.3.5 TMJ injuries/dislocation**

### **2.4 Pharmacology, Prescribing and therapeutics**

### **2.5 Clinical skills and operative management**

### **2.6 Multidisciplinary management**

### **2.1 Underlying knowledge**

Trainees should:

- Know a systematic, prioritised method of trauma management / injury scoring scale
- Know current guidelines for dental trauma:
- <https://iadt-dentaltrauma.org/guidelines-and-resources/guidelines/>
- <https://www.dentaltrauma.co.uk/Guidelines.aspx>
- Know complications of cervical spine injuries
- Know commonly used classification systems for dentoalveolar and facial injuries, including dental, bony, soft tissue and nervous tissue injuries eg AO

## **2.2 Assessment and Diagnosis**

Trainees should:

- Be able to carry out an assessment of a patient who has suffered trauma including an ABCDE assessment where appropriate
- Be able to recognise critical conditions such as life-threatening airway compromise, head injury, sight threatening trauma and haemorrhage arising from the mouth, jaws, face and neck and manage appropriately bearing in mind that this may require urgent referral

## **2.3 Types of hard and soft tissue trauma**

### **2.3.1 Trauma to the dentition**

Trainees should:

- Be able to assess and diagnose avulsion injuries of the primary and permanent dentition,
- Know the indications for reimplanting teeth
- Know the current splinting guidelines and review protocol for permanent teeth
- Be able to splint reimplanted teeth appropriately
- Be able to diagnose tooth and root fractures
- Know the current management protocols for tooth and root fractures
- Be able to provide emergency management of tooth and root fractures, and refer on for further specialist management if necessary
- Be able to assess and diagnose luxation injuries
- Know the current management protocols for luxation injuries
- Be able to provide emergency management of luxation injuries, and refer on for further specialist management if necessary

### **2.3.2 Alveolar fractures**

Trainees should:

- Be able to assess and diagnose dentoalveolar fractures
- Be able to manage isolated dentoalveolar fractures

### **2.3.3 Mandibular and Maxillary fractures**

Trainees should:

- Be able to assess and diagnose mandibular fractures
- Have knowledge and understanding of how to assess and diagnose maxillary, zygomatic, nasal and other facial fractures
- Be able to instigate appropriate management for mandibular, maxillary and other facial bone fractures by bearing in mind that this may mean referring to another specialty (OMFS) for definitive management,

### **2.3.4 Soft tissue injuries**

Trainees should:

- Be able to assess and diagnose injuries involving the perioral and intraoral soft tissues.
- Be able to manage perioral and intraoral soft tissue injuries, bearing in mind that extensive injuries may need liaison with other specialties.
- Have knowledge and understanding of how to manage facial soft tissue injuries
- Be able to instigate management for facial soft tissue injuries that are too extensive to be dealt with solely by an oral surgeon and may need input from other specialist services, e.g. plastic surgery or OMFS.

### **2.3.5 TMJ injuries/dislocation**

Trainees should:

- Be able to assess and diagnose mandibular dislocations
- Be able to relocate dislocated mandibles
- Be able to refer on to an appropriate specialty (eg OMFS) for further management when needed

## **2.4 Pharmacology, Prescribing and therapeutics**

Trainees should:

- Understand the role of and pharmacological principles relevant to medications/fluids used in the management of trauma patients
- Be able to prescribe appropriate medications in the management of soft tissue and hard tissue injuries (analgesics, antibiotics)

## **2.5 Clinical skills and operative management**

Trainees should:

- Be able to manage a patient with dentoalveolar trauma, including managing the soft tissue injuries and the dental hard tissue injuries.
- Be able to debride and repair a soft tissue injury of the mouth and perioral area
- Be able to reimplant avulsed teeth and splint appropriately and provide appropriate aftercare and follow up
- Be able to provide emergency dental care for fractured teeth and provide appropriate aftercare and follow up
- Be able to splint teeth that have suffered displacement and luxation injuries appropriately and provide appropriate aftercare and follow up
- Be aware of and be able to manage the complications following dental and dentoalveolar trauma
- Know of the different managements for fractures of the maxilla, mandible, and facial skeleton, including IMF or ORIF.
- Be able to reduce a dislocated mandible
- Be aware of the complications and risks of conservative and operative management of fractures of the mandible, maxilla and facial skeleton

## **2.6 Multidisciplinary management**

Trainees should:

- Know the role of other specialties and healthcare teams in the management of dentoalveolar trauma and orofacial trauma
- Work collaboratively with other specialties to provide oral surgery care to patients who have suffered dentoalveolar and orofacial trauma.

### **3. Domain 3: Assessment, diagnosis and management of patients with orofacial pain and temporomandibular disorders.**

#### **3.1 Underlying knowledge**

#### **3.2 Assessment and Diagnosis**

#### **3.3 Types of orofacial pain and temporomandibular disorders**

##### **3.3.1 Dentoalveolar and oral mucosal causes of orofacial pain**

##### **3.3.2 Musculoskeletal causes of orofacial pain**

##### **3.3.3 Vasculitic causes of facial pain**

##### **3.3.4 Primary headache disorders**

##### **3.3.5 Neuropathic pain presenting in the head and neck**

##### **3.3.6 Neurological Dysfunction**

##### **3.3.7 Functional disorders**

#### **3.4 Pharmacology, prescribing and therapeutics**

#### **3.5 Clinical Skills and operative management**

##### **3.5.1 Psychology**

#### **3.6 Multidisciplinary care**

#### **3.1 Underlying knowledge**

Trainees should know:

- The relevant classifications / guidelines / standards:
  - International Classification of Orofacial Pain 2020 Cephalalgia
  - Diagnostic Criteria for Temporomandibular Disorders (DC/TMD) for Clinical and Research Applications: Recommendation of the International RDC/TMD Consortium Network and Orofacial Pain Special Interest Group 2014
  - Neuropathic pain in adults: pharmacological management in non-specialist settings - NICE Guideline 2020.
  - Chronic Pain (primary and secondary) in over 16s: assessment of all chronic pain and management of chronic primary pain – NICE Guideline 2021.



- Temporomandibular Disorders (TMDs): an update and management guidance for primary care from the UK Specialist Interest Group in Orofacial Pain and TMDs - FDS RCS 2013
  - International Classification of Headache Disorders (ICHD3) headache classification
  - Guidelines for the management of trigeminal neuralgia FDS RCS 2021
  - Headaches in Over 12s: Diagnosis and Management NICE Guideline, 2012
  - Management of painful Temporomandibular disorder in adults NHS England Getting It Right First Time (GIRFT) and Royal College of Surgeons' Faculty of Dental Surgery.
- The range of presentations of both typical and atypical orofacial pain conditions and formulate appropriate differential diagnoses of the conditions listed below.
  - The applied anatomy relevant to chronic orofacial pain, including cranial nerves, craniofacial skeleton, pain pathways, pain receptors, action potentials, central sensitisation.
  - The applied physiology relevant to chronic orofacial pain including the physiology of orofacial / temporomandibular joint pain and headaches.
  - The aetiopathogenesis and natural history of diseases that may result in pain and neurological manifestations within the oral and maxillofacial region.
  - How to accurately use common terminology relevant to chronic pain, such as allodynia, hyperalgesia, paraesthesia and dysaesthesia.
  - How to apply the biopsychosocial model to the management of patients with chronic pain and recognise how these factors can impact on disease presentation, treatment outcomes and barriers to clinical response.

### **3.2. Assessment and Diagnosis**

Trainees should be able to:

- Conduct a thorough pain history, including the presenting complaint, and understand the impact of pain on a patient's quality of life.
- Perform a relevant cranial nerve examination to exclude possible underlying neurological conditions.
- recognise significant neurological signs that may indicate potentially significant underlying neurological diseases, 'red flag' presentations or acute neurological emergencies requiring urgent liaison with appropriate medical specialties.
- Apply the principles and applications of diagnostic local anaesthetic blocks.
- formulate an appropriate diagnosis and management plan, considering patient preferences and manage expectations.

### **3.3 Types of orofacial pain and temporomandibular disorders**

#### **3.3.1 Dentoalveolar and oral mucosal causes of orofacial pain**

Trainees should be able to:

- Exclude / determine dentoalveolar and oral mucosal pathology as underlying causes of orofacial pain:
  - Dental pathology:
    - Pulpitis.
    - Periapical periodontitis.
    - Cracked tooth syndrome.
    - Pericoronitis
  - Periodontal disease.
  - Salivary gland disease.
  - Oral mucosal disease.
  - Maxillary sinusitis.
  - Cancer-related pain.
  - Osteonecrosis.

#### **3.3.2 Musculoskeletal causes of orofacial pain**

Trainees should be able to diagnose and be aware of management options for the following conditions:

- Temporomandibular disorders (TMD):
  - Pain-related TMD.
  - Disc displacement TMD.
  - Degenerative joint TMD.

#### **3.3.3 Vasculitic causes of facial pain**

Trainees should have a theoretical understanding, and be able to recognise possible signs of the following condition:

- Giant cell arteritis (temporal arteritis).

Trainees should be able to identify possible signs and refer/signpost appropriately to a relevant medical specialty when indicated (e.g. Emergency department, Rheumatology).

#### **3.3.4 Primary headache disorders**

Trainees should have a theoretical understanding of the following conditions:

- Migraine
- Tension-type headache.
- Temporal arteritis.
- Trigeminal autonomic cephalalgia.

Trainees should be able to identify possible signs and refer/signpost appropriately to a relevant medical specialty when indicated (e.g. Neurology, Headache Clinic).

### **3.3.5 Neuropathic pain presenting in the head and neck**

Trainees should gain clinical experience of, and be able to diagnose, request relevant investigations and provide initial management of the following conditions:

- Trigeminal neuralgia.
- Persistent idiopathic facial / dentoalveolar pain disorders.
- Postherpetic neuralgia.
- Oral dysaesthesia.
- Post traumatic trigeminal neuropathic pain.
- Glossopharyngeal neuralgia.

### **3.3.6 Neurological Dysfunction**

Trainees should have a theoretical understanding of the following conditions:

- Smell and taste disorders: Anosmia, dysgeusia.
- Facial nerve palsy.
- Hypoglossal nerve palsy.

### **3.3.7 Functional disorders**

Trainees should be able to request relevant investigations, diagnose and provide initial management of the following conditions:

- Subjective halitosis.
- Subjective xerostomia.
- Subjective hypersalivation.

## **3.4 Pharmacology, prescribing and therapeutics**

Trainees should:

- Understand the role of and pharmacological principles relevant to medications used in the management of orofacial pain.

- Know the indications for and unwanted effects / common adverse reactions of medications used for the management of orofacial pain.
- Have a theoretical understanding of pharmacological management of orofacial pain, including the indications for and risks of analgesia in the treatment of orofacial pain.
- Know common drug interactions between commonly prescribed medications and orofacial pain medications.
- Know and apply the evidence base surrounding bite raising appliances.
- Know the role of and indications for physiotherapy, TMJ arthrocentesis, nerve blocks, microvascular decompression
- Know of other neurosurgical interventions for trigeminal neuralgia such as radiofrequency ablation, gamma knife stereotactic radiosurgery, glycerol / alcohol injections or balloon compression.
- Have theoretical knowledge and recognition of the role of the following medications in the management of orofacial pain:
  - Antiepileptic drugs:
    - Gabapentinoids - Gabapentin, Pregabalin.
    - Sodium channel blockers - Carbamazepine, Oxcarbazepine, Lamotrigine.
  - Antidepressants:
    - Tricyclics - Amitriptyline, Nortriptyline.
    - Serotonin-Noradrenaline Reuptake Inhibitors (SNRIs) – Duloxetine.
    - Selective serotonin reuptake inhibitors (SSRIs) - Sertraline, Fluoxetine.
  - Benzodiazepines: Clonazepam, Diazepam.
  - Muscle relaxants: Baclofen.
  - Topical capsaicin.
  - Botulinum toxin type A.
  - Local anaesthetics: Lidocaine, benzylamine hydrochloride.

### **3.5 Clinical Skills and Operative Management**

Trainees should:

- Be able to counsel patients with chronic orofacial pain.
- Provide a referral to other disciplines when indicated.
- Know the principles of injection of neurotoxin to muscles of mastication and focal neuropathic area.
- Know the principles of TMJ arthrocentesis and steroid / local anaesthetic injection.

- Be able to assess patients who may be anxious, depressed or at risk of suicide and know when and how to access support.
- Know when to seek advice from the mental health team.

### **3.12 Multidisciplinary Management**

Trainees should:

- Know the role of other specialties and healthcare teams in orofacial pain management.
- Know the role of non-pharmacological methods of chronic pain management relying on evidence-based knowledge, such as interpersonal strategies of pain management, multidisciplinary approach with clinical psychology, physiotherapy, neurosurgery, oral and maxillofacial surgery.
- Be able to identify and instigate as appropriate through liaison with other healthcare professionals' management strategies for patients with substance misuse

## **Domain 4 Assessment, diagnosis and management of patients requiring effective management of pain and anxiety.**

### **4.1 Underlying knowledge**

### **4.2. Assessment and diagnosis**

### **4.3 Pharmacology, Prescribing and Therapeutics**

### **4.4 Clinical skills and operative management**

### **4.5. Multidisciplinary management**

### **4.1 Underlying knowledge**

Trainees should know:

- The relevant classification/guidelines/standards:
  - Standards for the provision of Conscious Sedation in the Provision of Dental Care (v1.1) Intercollegiate Advisory Committee for Sedation in Dentistry; 2020.
  - Conscious Sedation in Dentistry. Scottish Dental Clinical Effectiveness Programme; 2027; 3<sup>rd</sup> Edition
  - American Society of Anaesthesiologists (ASA) Physical Status Classification System.

- Academy of Medical Royal Colleges. Safe Sedation Practice for Healthcare Procedures. AoMRC: London; 2013.
  - National Institute for Health and Care Excellence. Sedation in Children and Young People. London: NICE; 2010.
- 
- The range of pain and anxiety management techniques available and the limitations of their use.
  - The signs and symptoms of anxiety and phobia.
  - Know of relevant anatomy, physiology, and pharmacology to administer local anaesthetic infiltrations and block techniques.
  - Upper limb anatomy required for cannulation and venepuncture
  - Know relevant cardiovascular, respiratory, and neurological anatomy, physiology, and pharmacology to practice safe and effective oral, transmucosal, inhalation and intravenous conscious sedation.
  - The guidance/governance/legal aspects required for safe provision of conscious sedation.
  - The principles of patient assessment for provision of conscious sedation in primary care.
  - The potential complications of conscious sedation and potential interactions with sedative agents.
  - The importance for multi-disciplinary input, identify and refer to relevant specialist services outside of the scope of Oral Surgery practice in the management of anxiety and phobia.

## **4.2. Assessment and diagnosis**

Trainees should:

- Be able to recognise and manage uncommon effects, interactions and adverse reactions of local anaesthetic and sedative agents.
- Be able to assess patients including their medical, social, mental health, pain and anxiety status and determine who may be suitable for conscious sedation techniques and formulate an appropriate management plan considering patient preferences and managing expectations.
- Practise safe and effective transmucosal, oral, inhalation and intravenous conscious sedation.
- Recognise and manage uncommon effects and adverse reactions of conscious sedation.
- Be able to carry out patient assessment and suitability for conscious sedation or when to refer for deep sedation or general anaesthetic

### **4.3 Pharmacology, Prescribing and Therapeutics**

Trainees should:

- Be able to prescribe appropriate medications in the management of pain and anxiety:
  - Topical /inhalational/Oral/Transmucosal:
    - Local anaesthetics, lidocaine, articaine, bupivacaine, prilocaine lidocaine and prilocaine (EMLA®), tetracaine (Ametop®).
    - Oral and transmucosal sedation agents (Midazolam, Diazepam).
    - Nitrous oxide/oxygen.
  - Systemic:
    - Intravenous sedative agents, midazolam, diazepam, propofol, remimazolam, flumazenil.

### **4.4 Clinical skills and operative management**

Trainee should:

- Be able to give appropriate local anaesthetic infiltrations and blocks required for surgical procedures.
- Be able to assess a patient for safe discharge or referral for specialist care.
- Be able to recognise when optimal sedation has been reached.
- Be able to cannulate and administer intravenous midazolam incrementally until the required endpoint has been reached.

### **4.5. Multidisciplinary management**

Trainees should:

- Know the role of other specialities in behaviour management and anxiety and pain management.
- Be able to liaise with other specialties when appropriate (e.g., Special Care Dentistry, OMFS, Anaesthetics, Chronic pain management team) and make arrangements for timely referrals to other specialties where appropriate

**Domain 5: Assessment, diagnosis and management of patients with soft tissue lesions (mucosal, lymphatic, vascular, dermatological, neural, muscular and salivary gland).**

**5.1 Underlying knowledge**

**5.2 Assessment and Diagnosis**

**5.3 Types of soft tissue lesions**

**5.3.1 Benign white lesions**

**5.3.2 Malignant / Premalignant disease and conditions and Salivary gland tumours**

**5.3.3 Mucosal ulcerative lesions/conditions including vesiculobullous lesions/conditions**

**5.3.4 Pigmented lesions/conditions**

**5.3.5 Hypersensitive and granulomatous lesions/conditions**

**5.3.6 Lymphatic and vascular lesions/conditions**

**5.3.7 Infective lesions/conditions**

**5.3.8 Salivary gland disease/conditions**

**5.3.9 Developmental, metabolic, inherited conditions**

**5.3.10 Mucosal hyperplastic lesions/conditions**

**5.3.11 Other soft tissue lesions**

**5.4 Pharmacology, Prescribing and therapeutics**

**5.5 Clinical skills and operative management**

**5.6 Multidisciplinary management**

**5.1 Underlying knowledge**

Trainees should know:

- The relevant classification/guidelines/standards
  - ICOP painful oral mucosal lesions Jan 2020



- 2016 American College of Rheumatology/European League Against Rheumatism classification criteria for primary Sjögren’s syndrome
  - Warnakulasuriya, S., Kujan, O., Aguirre-Urizar, J. M., et al. (2021). Oral potentially malignant disorders: A consensus report from an international seminar on nomenclature and classification, convened by the WHO Collaborating Centre for Oral Cancer. *Oral Diseases*, 27, 1862–1880. <https://doi.org/10.1111/odi.13704>
  - WHO Classification of Head and Neck Tumours - 5<sup>th</sup> Edition (2022)
  - Cancer of the upper aerodigestive tract: assessment and management in people age 16 and over, NICE, 2016
  - Suspected cancer recognition and referral NICE, 2015
  - British Association of Dermatologists Clinical Standards Unit and the British Society for Rheumatology, British Association of Dermatologists and British Society for Rheumatology living guideline for managing people with Behçets 2024, *British Journal of Dermatology*, Volume 191, Issue 5, November 2024, Pages e8-e25, <https://doi.org/10.1093/bjd/ljae263>
  - Warnakulasuriya, S., Kujan, O., Aguirre-Urizar, J. M., et al. (2021). Oral potentially malignant disorders: A consensus report from an international seminar on nomenclature and classification, convened by the WHO Collaborating Centre for Oral Cancer. *Oral Diseases*, 27, 1862–1880. <https://doi.org/10.1111/odi.13704>
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- The pathology of developmental, infective, benign and malignant oral mucosal disease.
  - The classification of salivary gland and soft tissue tumours of the head and neck region.
  - The appropriate management of malignant and premalignant conditions of the soft tissues and salivary glands.
  - The risk factors for malignant disease of the mouth and perioral region
  - The grading and staging system for malignant disease of the head and neck
  - Know and understand benign and malignant lymph node conditions and their subsequent management.
  - Know and understand the presentation and management of all infective, metabolic, inherited, and developmental conditions of the soft tissues and salivary glands.
  - Know the pathophysiology and natural history of the range of oral mucosal diseases comprising those related to disease of oral and maxillofacial region as well as systemic disease.

## 5.2 Assessment and diagnosis

Trainees should:

- Recognise high risk or red flag signs and symptoms that may potentially indicate disease that needs urgent attention.
- Recognise the range of presentations, both typical and atypical of oral mucosal disease of local and systemic origin.
- Know and understand when to request appropriate imaging techniques for soft tissue lesions and conditions including salivary gland conditions.
- Be able to accurately interpret commonly used investigations such as plain film radiographs of the head and mouth, tomographic images of the oral cavity and surrounding bony skeleton, CBCT scans of the mouth and surrounding anatomical structures.
- Be able to carry out basic interpretation of other imaging techniques used in the oral and maxillofacial regions such as MRI, sialograms and ultrasound.
- Be able to interpret radiographic and other diagnostic test reports to facilitate management specifically for salivary glands including ultrasound, sialograms
- Be able to interpret imaging reports regarding soft tissue lesions of the head and neck region.
- Know the application of FNA, core biopsies and their limitations.
- Be able to interpret results including histopathological reports, blood tests, microbiological reports and other diagnostic test reports to plan patient care.
- Be able to formulate an appropriate treatment plan considering the patient's wishes, anxieties, and risks and benefits of the treatment offered, and organise follow-up where required.

### **5.3 Types of soft tissue lesions**

#### **5.3.0 – Normal anatomy**

Trainees should:

- Be able to recognise normal oral anatomical features and provide an explanation to patients regarding these features. Common features would include:
  - Fordyce's spots.
  - Geographic, coated and fissured tongue.
  - Circumvallate and foliate papillae.
  - Varicosities.
  - Lingual tonsillar tissue.

#### **5.3.1 Benign white lesions**

Trainees should:

- Be able to recognise common benign mucosal white lesions including those arising from underlying systemic disease and form an appropriate differential diagnosis and instigate management bearing in mind that that may involve referral to another specialty. The white lesions would include:
  - Leukoedema.
  - Frictional keratosis and cheek biting.
  - Stomatitis nicotina.
  - Chemically or drug-induced lesions.
  - White sponge naevus.
  - Skin grafts.
  - Psoriasis.
  - Hairy leukoplakia.
  - Candidal white patches.

### **5.3.2 Malignant / Oral Potentially Malignant Disorders and conditions and salivary gland tumours**

Trainees should:

- Be able to recognise the high-risk signs for malignant or oral potentially malignant disorders in the mouth, perioral region and salivary glands and arrange investigations and management in a timely manner. These include:
  - Leukoplakia.
  - Erythroplakia.
  - Non-homogenous leukoplakia (speckled leukoplakia).
  - Proliferative Verrucous Leukoplakia
  - Oral submucous fibrosis.
  - Actinic keratosis/chelitis.
  - Dysplastic lesions.
  - Oral Squamous Cell Carcinoma.
  - Basal Cell Carcinoma
  - Lymphoma.
  - Melanoma.
  - Kaposi sarcoma.
  - Chronic candidiasis.
  - Oral Lichen planus.
  - Oral Lichenoid Lesion
- Be able to recognise, investigate and manage benign and malignant major and minor salivary gland tumours bearing in mind that the appropriate management will usually involve referral to another specialty.

### **5.3.3 Mucosal ulcerative lesions/conditions including vesiculobullous lesions/conditions**

Trainees should:

- Be able to recognise, investigate, diagnose and manage a range of mucosal ulcerative lesions conditions bearing in mind that the appropriate management may include referral to another specialty. These lesions and conditions include:
  - Traumatic ulceration.
  - Aphthous stomatitis.
  - Other types of oral ulceration.
  - Ulceration related to systemic conditions and drugs.
  - Oral lichenoid conditions.
  - Infective ulceration (herpes stomatitis, herpes Zoster, chicken pox, hand foot and mouth disease, herpes labialis), Cytomegalovirus, Syphilis and Tuberculosis related ulceration.
  - Glossitis and median rhomboid glossitis.
- Be able to recognise vesiculobullous conditions and know how to investigate and refer on for appropriate management.

### **5.3.4 Pigmented lesions/conditions**

Trainees should:

- Be able to recognise, investigate, diagnose, and manage a range of pigmented mucosal lesions and conditions bearing in mind that the appropriate management may include referral to another specialty. These lesions and conditions include:
  - Racial or physiological pigmentation.
  - Melanotic macules and naevi.
  - Amalgam tattoos.
  - Drug or systemic related pigmentation.
  - Malignant melanoma.

### **5.3.5 Hypersensitive and granulomatous lesions/conditions**

Trainees should:

- Be able to recognise, investigate, diagnose and manage a range of hypersensitive and granulomatous lesions and congenital lesions of the soft tissues bearing in mind that the appropriate management may include referral to another specialty. These lesions and conditions include:

- Angioedema.
- Orofacial granulomatosis.
- Oral manifestations of inflammatory bowel diseases.
- Sarcoidosis.
- Mycobacterial infection (TB).

### **5.3.6 Lymphatic and vascular lesions/conditions**

Trainees should:

- Be able to recognise, investigate, diagnose and manage a range of oral vascular lesions, including oral vascular malformations and lymphovascular malformations and haemangiomas bearing in mind that the appropriate management may include referral to another specialty.

### **5.3.7 Infective lesions/conditions**

Trainees should:

- Be able to recognise, investigate, diagnose and manage bacterial, viral and fungal infective conditions of the soft tissues appropriately bearing in mind that in some instances that may mean forward referral to another specialty. These include:
  - Bacterial infections.
  - Mycobacterial infections.
  - Candidal infections,
  - Herpes simplex and zoster.
  - HIV.
  - HPV viral infections.

### **5.3.8 Salivary gland disease/conditions**

Trainees should:

- Be able to recognise, investigate, diagnose and manage a range of bacterial (eg bacterial sialadenitis), viral (mumps, HIV, EBV) and fungal infective conditions of the salivary glands appropriately, bearing in mind that in some instances that may mean forward referral to another specialty.

- Be able to recognise, investigate and manage immune-related, metabolic, inherited, and developmental conditions of the salivary glands appropriately including primary and secondary Sjogrens syndrome, sarcoidosis, SLE bearing in mind that in some instances that may mean forward referral to another specialty.
- Be able to recognise, investigate, diagnose and manage (including surgical management) local obstructive, inflammatory and reactive disorders of salivary glands appropriately, including:
  - Sialoliths.
  - Mucoceles.
  - Ranulae.
  - Necrotising sialometaplasia.
  - Recurrent parotitis.
  - Sialadenitis.
- Understand the causes of and be able to recognise, investigate and manage disorders of salivary production and flow rate, such as xerostomia and sialorrhea bearing in mind that in some instances that may mean forward referral to another specialty.

### **5.3.9 Developmental, metabolic, inherited generalised conditions**

Trainees should:

- Be able to manage metabolic, inherited, and developmental conditions of the soft tissues appropriately bearing in mind that in some instances that may mean forward referral to another specialty.
- Be able to recognise common mucosal diseases including those with underlying systemic disease and form an appropriate differential diagnosis and instigate management bearing in mind that that may involve referral to another specialty

### **5.3.10 Mucosal hyperplastic lesions/conditions**

Trainees should:

- Be able to recognise, investigate, diagnose and manage (including surgical management) of mucosal hyperplastic conditions such as:
  - Fibroepithelial hyperplasia.
  - Pyogenic granulomas.
  - Squamous cell papillomas.
  - Epulides.
  - Drug induced gingival overgrowth.

### 5.3.11 Other soft tissue lesions

Trainees should:

- Be able to recognise and manage other soft tissue lesions and conditions that present in and around the oral cavity bearing in mind that in some instances that may mean forward referral to another specialty. Lesions and conditions include:
  - neuromas, neurolemmomas and neurofibromas,
  - lipomas and fibrolipomas,
  - granular cell tumours
  - haemangiomas and lymphangiomas
  - sebaceous cysts,
  - amyloidosis,
  - Kaposi sarcoma, fibrosarcoma and rhabdomyosarcoma

### 5.4 Pharmacology, Prescribing and Therapeutics

Trainees should:

- Be able to prescribe appropriate medications in the management of soft tissue disease.

Topical

- Antivirals
- Antifungals
- Antibacterials
- Corticosteroids
- Local anaesthetics, lidocaine, benzydamine hydrochloride

Systemic

- Antivirals
- Antifungals
- Antibacterials
- Corticosteroids
- Have theoretical knowledge and recognition of the role of the following medications in the management of oral mucosal disease:
  - Dapsone
  - Methotrexate
  - Thalidomide
  - Pentoxifylline
  - Biologic agents
  - Cyclophosphamide

- Systemic calcineurin inhibitors
- Azathioprine
- Colchicine
- Hydroxychloroquine
- Mycophenolate mofetil

## **5.5 Clinical skills and operative management**

Trainees should:

- Be able to undertake incisional and excisional biopsy techniques of soft tissue lesions to confirm diagnosis and understand the resulting histopathological report and explain the results to the patient.
- Know and understand the most appropriate surgical management techniques and when onward referral may be necessary for definitive treatment.
- Be able to surgically manage those lesions that require surgery to remove or manage them such as fibroepithelial polyps, mucoceles, lipomas, epulides, gingival hyperplasia and drug induced gingival overgrowth, sialoliths, pyogenic granulomas, squamous cell papillomas, giant cell lesions.
- Be able to safely use other techniques for removal or management of lesions, and know the advantages and disadvantages of these techniques which may include:
  - cryotherapy,
  - diathermy, lasers,
  - basket retrieval
  - lithotripsy
- Be able to offer preventative oral healthcare advice.

## **5.6 Multidisciplinary Care**

Trainees should:

- Understand the role of other specialities in the management of soft tissue lesions of the oral cavity and oral & maxillofacial region.
- Be able to liaise with other specialties when appropriate (e.g., oral medicine, OMFS) and make arrangements for timely referrals to other specialties where appropriate.

## **Domain 6: Assessment, diagnosis and management of patients with hard tissue lesions of the jaws.**

### **6.1 Underlying knowledge**



## **6.2 Assessment and Diagnosis**

### **6.3 Types of hard tissue lesions of the jaws**

#### **6.3.1 Odontogenic cysts**

#### **6.3.2 Odontogenic tumours**

#### **6.3.3 Fibro-osseous and giant cell lesions of the jaws**

#### **6.3.4 Medication related osteonecrosis of the jaws / osteoradionecrosis /osteomyelitis**

#### **6.3.5 Malignant bone disease**

### **6.4 Pharmacology, prescribing and therapeutics**

### **6.5 Clinical skills and operative management**

### **6.6 Multidisciplinary care**

### **6.1 Underlying knowledge**

Trainees should:

- Know relevant guidelines/classifications and standards:
  - WHO Classification of Head and Neck Tumours - 5<sup>th</sup> Edition (2022)
  - Position Paper – Medication -related Osteonecrosis of The Jaw - America Association of Oral and Maxillofacial Surgeons 2022
- Know the underlying pathogenesis of common malignant, benign bone pathology, fibro-osseous lesions, giant cell lesions and osteonecrosis (MRONJ/ORN) affecting the mandible and maxilla.
- Know the clinical, radiological and histopathological features commonly associated with malignant diseases found within the maxilla and mandible.
- Know the clinical, radiological and histopathological features commonly associated with benign cysts and tumours within the bone of the head and neck.
- Know the clinical, radiological and histopathological features commonly associated with fibro-osseous lesions, giant cell lesions and osteonecrosis (MRONJ/ORN) affecting the mandible and maxilla.

## **6.2 Assessment and Diagnosis**

Trainees should:

- Know the principles, indications, and interpretation of microbiological, haematological, cytological, histological, and radiological investigations of the jaws.

### **6.3 Types of hard tissue lesions of the jaws**

Trainees should be able to recognise the clinical, radiographic and histopathological features of benign bony disease listed below, formulate a differential diagnosis, request appropriate diagnostic tests, provide surgical management where appropriate or refer on to another specialty for further management for the following:

#### **6.3.1 Odontogenic cysts**

- Cysts of inflammatory origin
  - Radicular cyst (Periapical cyst)
  - Residual cyst
  - Inflammatory collateral (paradental) cyst
- Cysts of developmental or unknown origin
  - Dentigerous cyst
  - Odontogenic keratocyst
  - Lateral periodontal cyst
  - Gingival cyst
  - Glandular odontogenic cyst
- Cysts of non-odontogenic origin
  - Nasopalatine duct cyst
  - Nasolabial cyst
- Pseudocyst
  - Stafne's bone cyst
  - Solitary bone cyst

#### **6.3.2 Benign Odontogenic tumours**

- Ameloblastoma
- Calcifying epithelial odontogenic tumour
- Adenomatoid odontogenic tumour
- Squamous odontogenic tumour
- Ameloblastic fibroma
- Odontoma
- Odontogenic fibroma
- Odontogenic myxoma / myxofibroma
- Cementoblastoma
- Cemento-ossifying fibroma
- Osteoma

#### **6.3.3 Fibro-osseous and giant cell lesions of the jaws**

- Fibrous dysplasia
- Cemento-osseous dysplasia
- Giant cell lesions
  - Central giant cell lesion
  - Peripheral giant cell lesion
  - Cherubism
  - Brown tumour of hyperparathyroidism
  - Aneurysmal bone cyst
- Have an awareness of systemic conditions or syndromes related to the presentation of such lesions

#### **6.3.4 Medication related osteonecrosis of the jaws/osteoradionecrosis/osteomyelitis**

- Medication related osteonecrosis of the jaw
- Osteoradionecrosis
- Osteomyelitis
  - Chronic/acute
  - Sclerosing/suppurative
  - Focalising or widespread

#### **6.3.5 Malignant bone disease**

- Recognise the red flag signs and symptoms of malignant bone disease
- Initiate appropriate initial diagnostic / onward referral pathways

### **6.4 Pharmacology, prescribing and therapeutics**

Trainees should:

- Be able to prescribe appropriate medications in the management of hard tissue disease.
  - Antimicrobials
  - Analgesia
  - Pharmacology of drugs causing MRONJ / other bone disease
  - Medical management of MRONJ / ORN / osteomyelitic /fibro-osseous and giant cell lesions

### **6.5 Clinical skills and operative management**

Trainees should:

- Be able to conduct a thorough holistic assessment of the patient including presenting complaint, history of presenting complaint and to include the

medical, social, family, dental, mental health and anxiety histories from a patient requiring care who presents to an oral surgery or multidisciplinary clinic.

- Be able to conduct a thorough extra and intraoral examination, relevant to the condition the patient complained of/presented with.
- Gain informed and valid consent for surgical procedures
- Be able to undertake incisional and excisional biopsy techniques of hard tissue lesions to confirm diagnosis and understand the resulting histopathological report and explain the results to the patient.
- Be able to treatment plan patients with hard tissue disease to undergo appropriate surgical management when necessary.
- Be able to prescribe appropriate analgesia, antibiotics, intralesional medications (including baseline investigations and monitoring requirements)
- Be able to excise / enucleate cysts/lesions – e.g., radicular, dentigerous, keratocyst with and without adjunctive agents when indicated
- Be able to manage ameloblastomas appropriately bearing in mind that may involve referral to other specialties
- Be able to plan of extractions to minimise complications in relation to COD, ORN / MRONJ
- Be able to marsupialise or decompress cystic lesions, and know when this is the correct management of the lesion
- Be able to enucleate benign odontogenic and non-odontogenic pathology of the jaw, and know when this is the correct management of the lesion
- Be able to debride and recontour diseased bone where necessary
- Identify those patients who require long term monitoring and enact appropriate follow-up protocols

## **6.6 Multidisciplinary care**

- Demonstrate an awareness of the role of MDTs and multidisciplinary management for bone lesions, including primary care.

## **Domain 7: Assessment, diagnosis and management of patients in need of oral rehabilitation (including osseointegrated dental implants)**

### **7.1 Underlying knowledge**

### **7.2 Assessment and Diagnosis**

### **7.3 Types of dental implants, design and materials used for implant therapy and hard and soft tissue augmentation and their limitations**

## **7.4 Pharmacology, Prescribing and therapeutics**

## **7.5 Clinical skills and operative management**

## **7.6 Multidisciplinary management**

## **7.1 Underlying knowledge**

Trainees should:

- Know the relevant classification/guidelines/standards:
  - Faculty of General Dental Practitioner Guide. Training Standards in Implant Dentistry (2016). Accessed by <https://cgdent.uk/standards-guidance>
  - Mentoring in Implant dentistry. Good Practice Guidelines. College of General Dentistry. <https://cgent.uk/standards-guidance>
  - Appropriate/relevant consensus statements from International Team of Implantology (ITI), European Academy of Osseointegration and Osteology Foundation and other relevant organisations.

## **7.2 Assessment and Diagnosis**

Trainees should:

- Have knowledge of the basic science, surgical anatomy, pathology and healing processes involved in dental implant therapy and hard and soft tissue regeneration/augmentation procedures.
- Be able to assess the suitability of a patient for dental implant therapy including a risk-benefit analysis and identification of dental, social or medical factors that may make a patient unsuitable for implant therapy
- Be able to determine an aesthetic risk assessment for a patient undergoing dental implant therapy.
- Have knowledge of the healing processes involved in implant therapy.
- Have knowledge of implant therapy planning including CBCT and implant planning software programmes
- Be able to image and interpret imaging required for dental implant therapy.
- Be able to recognise peri-implant disease including peri-implant mucositis and peri-implantitis

### **7.3 Types of dental implants, design and materials used for implant therapy and hard and soft tissue augmentation and their limitations**

Trainees should:

- Have knowledge of different types of dental implants that may be used, their indications and limitations
  - Endosteal
  - Periosteal
  - Zygomatic
- Have knowledge of benefits of guided implant surgery including an awareness of dynamic navigation techniques.
- including the indications and risks.

Have knowledge of the different biomaterials available for use in tissue regeneration / augmentation techniques including advantages and disadvantages.

- Guided tissue regeneration with membranes
- Xenograft, Alloplast and Allograft materials for hard and soft tissue grafts/augmentation

### **7.4 Pharmacology, Prescribing and therapeutics**

Trainees should:

- Have knowledge of the medications that may be required for implant therapy, their indications and potential complications of their use
  - Antimicrobials
  - Analgesics

### **7.5 Clinical skills and operative management**

Trainees should:

- Be able to use aseptic surgical techniques to optimise infection control in implant therapy
- Have knowledge of soft tissue surgery and techniques used to optimise aesthetic healing in implant therapy
- Be able to take informed consent and communicate potential complications with patients undergoing implant therapy.
- Have knowledge of the correct 3-dimensional positioning of dental implants which is prosthetically driven.

- Have knowledge and experience of the different placement protocols for dental implants and the indications for each (e.g. type I, II, III and IV).
- Have knowledge and experience of alveolar ridge preservation/socket grafting techniques including the indications and risks.
- Have knowledge and experience of the different techniques available to facilitate dental implant rehabilitation in cases where there is a lack of hard and soft tissue.
  - Horizontal and vertical ridge augmentation techniques
    - Using block bone grafting and other novel techniques including those employing guided bone regeneration
  - Sinus Augmentation techniques
    - Lateral Window
    - Transcrestal
  - Soft Tissue Augmentation techniques
- Have knowledge and experience of different donor sites for hard and soft tissue grafting as well as the benefits and risks of each site. These include:
  - Mandibular ramus bone grafts
  - Mandibular symphysis bone grafts
  - Palatal soft tissue grafts – e.g. free gingival grafts and connective tissue grafts
- Be able to recognise and manage complications of implant therapy and tissue regeneration techniques
- Be able to monitor success of implant therapy
- Have experience in the management of peri-implant disease including peri-implant mucositis and peri-implantitis
- 

## **7.6 Multidisciplinary management**

Trainees should:

- Be able to liaise with other specialties when patients requiring complex implant therapy have been identified
- Be able to liaise with colleagues to plan implant surgery and restore and maintain implants following healing
- Know when to refer patients requiring complex implant therapy for specialised care

## **Domain 8: Assessment, diagnosis and management of patients with Critical Conditions**

### **8.1 Underlying knowledge**

### **8.2 Assessment and Diagnosis**

### **8.3 Types of critical conditions and medical emergencies**

#### **8.3.1 Medical emergencies**

#### **8.3.2 Critical conditions**

### **8.4 Pharmacology, Prescribing and therapeutics**

### **8.5 Clinical skills and operative management**

### **8.6 Multidisciplinary management**

### **8.1 Underlying knowledge**

Trainees should:

- Know the common medical emergencies that occur during dental treatment
- Understand the pathophysiology related to medical emergencies and critical conditions
- Know how and when to access training related to dealing with medical emergencies and critical conditions

### **8.2 Assessment and Diagnosis**

Trainees should:

- Be capable of recognising an acutely ill patient
- Be capable of performing assessment of the acutely unwell patient including a detailed and appropriate physical examination.
- Be capable of identifying risk factors for medical emergencies and instituting preventive strategies.
- Be capable of recognising and diagnosing spreading infection in the orofacial region and understand the importance of timely management
- Be capable of recognising the red flags for malignant conditions of the mouth and jaws and instigate appropriate management which may include urgent referral to another specialty



- Be capable of diagnosing a trigeminal nerve injury and instigating appropriate action and referral where appropriate

### **8.3 Types of critical conditions and medical emergencies**

#### **8.3.1 Medical emergencies**

Trainees should be able to recognise, diagnose, summon help and effectively manage the most likely medical emergencies until help arrives or the patient recovers including:

- Acute angina and myocardial infarction
- Epileptic seizures and status epilepticus
- Acute asthma
- Choking and airway obstruction
- Hypoglycaemia
- Stroke
- Addisonian crisis
- Cardiac and Respiratory arrest
- Vasovagal syncope

#### **8.3.2 Critical conditions**

Trainees should be able to recognise and/or diagnose, summon help and effectively manage or refer on for further care the most likely critical conditions including:

- Haemorrhage arising from the mouth and jaws
- Displaced instruments, equipment, teeth or pieces of teeth
- Spreading infections of the orofacial region
- Sepsis
- Suspected malignancy of the mouth and jaws
- Trigeminal injuries
- Failed extractions

### **8.4 Pharmacology, Prescribing and therapeutics**

Trainees should:

- Know and understand the pharmacology and adverse effects of drugs used in the management of medical emergencies
- Know and understand the selection and maintenance of emergency drugs and equipment.
- Be capable of identifying, prescribing, pharmacological agents, including by intramuscular injection for the management of medical emergencies in adults and children.

## **8.5 Clinical skills and operative management**

Trainees should:

- Be capable of correct handling of medical emergency drugs and equipment.
- Be capable of identifying and recording risk factors for medical emergencies and instituting preventive strategies.
- Be capable of administering (where appropriate) pharmacological agents, including by intramuscular injection, and using equipment correctly for the management of medical emergencies in adults and children.
- Be capable of written documentation of medical emergency events and outcomes.
- Be capable of recognising potentially life-threatening events including sepsis and instituting appropriate referral/ management.
- Be capable of making an attempt to control haemorrhage from the mouth and jaws
- Be able to recognise when local measures are not controlling haemorrhage or the mouth and jaws and refer on appropriately
- Be capable of instigating measures to identify where instruments, equipment, teeth or pieces of teeth have been displaced to, communicate this with the patient and manage the situation appropriately
- Be capable of managing a failed extraction, communicating with the patient regarding the management without denigrating the previous clinician's work

## **8.6 Multidisciplinary management**

Trainees should:

- Be capable of recognising the need for team support and multi-disciplinary working, in both the management of medical emergencies and critical conditions

- Be capable of identifying and referring with an appropriate degree of urgency, medical and dental emergencies, beyond the trainee's scope of management.
- Be capable of communicating the diagnosis and treatment to patient, team and paramedics.
- Be capable of instigating timely referrals in conditions that are time critical

## **Domain 9: Capabilities in Practice (CiPs)**

### **9.1 Capable of managing an outpatient clinic**

### **9.2 Capable of managing unselected urgent referrals**

### **9.3 Capable of managing on-going care of patients**

### **9.4 Capable of managing an operating list**

### **9.5 Capable of managing multi-disciplinary working**

#### **9.1 Capable of managing an outpatient clinic**

Trainees should be capable of managing all the administrative and clinical tasks required of a specialist in order that all patients presenting to out-patient consultation clinics in the specialty are cared for safely and appropriately. This may include, when appropriate, the supervision and teaching of dental trainees and / or students.

Trainees should:

- Assess new and review patients using a structured history and focused clinical examination to perform a full clinical assessment, determine the appropriate plan of action and explain it to the patient.
- Take into account medical co-morbidities and, dental and social factors that may complicate patient management
- Identify capacity issues and make appropriate plans to ensure valid consent is obtained
- Adapt their approach to accommodate all channels of communication (e.g. interpreter, sign language) communicates using language understandable to the patient.
- Request appropriate investigations and do not over-investigate
- Interpret investigations in context and make an appropriate management plan
- Identify what conditions are urgent and need urgent investigations or treatment
- Make good use of time
- Use the consultation to emphasise health promotion (smoking cessation, alcohol, diet, weight management etc)
- Effectively integrate supervision and teaching junior trainees and / or undergraduate students into their management of the clinic

- Identify patients who need an opinion from another dental specialty / GP / or medical or surgical specialty
- Complete all required documentation including clinical records, letters and onward referrals
- Manage potentially difficult or challenging interpersonal situations, including breaking bad news and complaints

## **9.2 Capable of managing unselected urgent referrals**

Trainees should be capable of managing all patients seen on an acute basis either on referral from a primary care practitioner, another specialty or a self-referral of a post-operative patient or patient already under the care of the department. They should be able to perform all the administrative and clinical tasks required of a specialist oral surgeon in order that all patients presenting as emergencies in the specialty are cared for safely and appropriately.

Trainees should:

- Obtain a structured history and focused clinical examination to perform a full clinical assessment, determine the appropriate plan of action and explain it to the patient
- Make a sound assessment of patients for sepsis, airway compromise or other conditions requiring immediate management.
- Prescribe safely and effectively and does not over-prescribe
- Manage patient's pain and concerns effectively
- Manage time effectively
- Liaise with other dental specialties / GP / other healthcare professionals when appropriate and make appropriate referrals
- Identify patients who may need admission or assessment by the emergency department
- Manage stressful situations as well as other clinical duties
- Complete all required documentation including clinical records, letters and onward referrals
- Supervise and manage the care of acute / urgent patients who are being treated by junior dental trainees.

## **9.3 Capable of managing on-going care of patients**

Trainees should manage the care of patients who require long term management, who have complex conditions or require significant work-up prior to surgery.

This includes patients with pathological conditions of the jaws (e.g. cysts, MRONJ), multidisciplinary implantology cases, patients with orofacial pain who require further investigations, patients with complex medical or social factors complicating surgery.

Trainees should:

- Liaise with other members of the team to ensure special equipment (e.g. implants or biomaterials) or lab-work is ordered in advance of the patients care.
- Follow up on any investigations and act on the results in an appropriate manner
- Take responsibility for chasing up on investigations and results when appropriate
- Keep thorough records during the long-term care of the patient
- Communicate updates with the patients' primary care team
- Deal with queries about patients care from the patient themselves, their carers, or their primary care team
- Keep the patient at the centre of updates and decisions relating to their care

#### **9.4 Capable of managing an operating list**

Trainees should manage all patients with conditions requiring operative treatment within the specialty whether it is under local anaesthetic, conscious sedation, or general anaesthetic. They should be able to perform all the administrative and clinical tasks required of a specialist oral surgeon in order that all patients requiring treatment, in the outpatient-setting or theatre setting, receive it safely and appropriately. This may include, when appropriate, the supervision and teaching of dental trainees and / or students.

Trainees should:

- Prepare for the list in advance and ensure all pre-operative investigations are complete and treatment plan is confirmed
- Liaise with waiting list team, patients and other healthcare professionals in advance of the list as necessary
- Prepare for the list by reviewing records and all appropriate imaging
- Obtain valid consent prior to the procedure, deal with any unexpected issues with the plan and answers all questions the patient may have.
- Take appropriate action when there is disagreement with the plan
- Lead the brief for the outpatient or theatre team about the patients
- Inform the team of any equipment that will or might be required in advance
- Liaise with the anaesthetist regarding the airway selection, use of throat pack and need for antibiotics, corticosteroids, or other medications
- Ensure that the WHO checklist (equivalent) is completed at the beginning and at the end of each procedure
- Synthesise the patient's surgical condition, the technical details of the operation, co- morbidities and medication into an appropriate operative plan for the patient
- Carry out the operative procedures to the required level for the end of training
- Use good judgement to adapt operative strategy to take account of pathological findings and any changes in clinical condition

- Undertake the operation in a technically safe manner, using time efficiently
- Display sound non-technical skills behaviours during the operating list (communication and teamwork, leadership, situational awareness and decision making)
- Complete thorough operation notes / records for each procedure including post operative instructions and the need for any post operative medications
- Give appropriate post operative instructions to the patient, patient's escort or day surgery or ward staff
- Review patients as appropriate
- Manage complications safely, requests help from colleagues where required/
- Effectively integrate supervision and teaching junior trainees and / or undergraduate students into their management of the operating list

### **9.5 Capable of managing multi-disciplinary working**

Trainees should manage all patients with conditions requiring inter-disciplinary management (or multi- consultant input) including care within the specialty. They should be able to perform all the administrative and clinical tasks required of a specialist oral surgeon in order that safe and appropriate multi-disciplinary decisions are made on all patients with such conditions requiring care within the specialty.

This includes implant planning for patients who have hypodontia or a history of dental trauma, orthodontic patients with ectopic teeth and / or syndromes, salivary gland, patients with head and neck, facial pain etc.

Trainees should:

- Appropriately select patients who require discussion with the multi-disciplinary team
- Follow the appropriate administrative processes
- Deal correctly with inappropriate referrals for discussion (e.g. postpones discussion if information is incomplete or out-of-date)
- Present relevant case history, recognising important clinical features, co-morbidities, and investigations
- Identify patients with unusual, serious, or urgent conditions
- Engage constructively with all members of the multi-disciplinary team in reaching an agreed management decision, taking co-morbidities into account, recognising when uncertainty exists, and being able to manage this
- Effectively manage potentially challenging situations such as conflicting opinions
- Develop a clear management plan and communicates discussion outcomes and subsequent plans by appropriate means to the patient, GP and administrative staff as appropriate
- Maintain appropriate records and documentation.
- Manage time to ensure the case list is discussed in the time available

- Arrange follow up investigations when appropriate and knows indications for follow up.