

## **ORAL AND MAXILLOFACIAL SURGERY**

### **RATIONALE**

The purpose of training program in oral and maxillofacial surgery department includes acquiring clinical skills related to minor oral surgical procedures like extraction, transalveolar extraction, disimpaction and basic knowledge related to major oral surgical procedures like TMJ, oral cancer, panfacial fractures, and cystic pathologies of jaw. This training is aimed at enhancing the basic anatomical knowledge of oral and maxillofacial region and applying it in clinical practices.

### **PROGRAM OUTCOME**

- 1) to prepare clinicians who demonstrate proficiency with diagnosis, treatment planning and treatment of patients
- 2) To provide the student with information in the basic sciences as a foundation for understanding the literature and adapting future advances into the clinical practice
- 3) To provide students the basic knowledge about universal precautions, cross contamination and aseptic surgical procedures
- 4) Candidate should be able to perform clinical skills like simple extractions, suturing, alveoloplasty, and basic wiring procedures like splinting
- 5) Candidate should be able to manage medical emergencies in dental office

### **SYLLABUS FOR UNDERGRADUATES**

#### **BDS III YEAR**

<b>SNO</b>	<b>TOPICS</b>	<b>OBJECTIVES</b>
1	<b>DIAGNOSIS IN ORAL SURGERY</b>	(A) History taking (B) Clinical examination (C) Investigations

2	<b>PRINCIPLES OF INFECTION CONTROL</b>	Cross-infection control with particular reference to HIV/AIDS and Hepatitis
3	<b>ASEPSIS:</b> Definition, measures to prevent introduction of infection during surgery.	<ol style="list-style-type: none"> <li>1. Preparation of the patient</li> <li>2. Measures to be taken by operator</li> <li>3. Sterilisation of instruments - various methods of sterilisation etc.</li> <li>4. Surgery set up</li> </ol>
4	<b>PAINLESS SURGERY</b>	<ol style="list-style-type: none"> <li>1. Pre-anaesthetic considerations. Pre-medication: purpose, drugs used</li> <li>2. Anaesthetic considerations - a) Local b) Local with IV sedations</li> <li>3. Use of general anaesthetic</li> </ol>
5	<b>CONTROL OF HAEMORRHAGE</b>	<p>Normal Haemostasis</p> <p>Local measures available to control bleeding</p> <p>Hypotensive anaesthesia etc</p>
6	<b>POST OPERATIVE CARE</b>	<p>Post operative instructions</p> <p>Physiology of cold and heat</p> <p>Control of pain - analgesics</p> <p>Control of infection - antibiotics</p> <p>Control of swelling - anti-inflammatory drugs</p> <p>Long term post operative follow up - significance</p>
7	<b>EXODONTIA</b>	<p>General considerations</p> <p>Ideal Extraction.</p> <p>Indications for extraction of teeth</p> <p>Extractions in medically compromised patients.</p> <p>Methods of extraction - (a) Forceps or intra-alveolar or closed method.</p> <p>Principles, types of movement, force etc.</p> <p>(b) Trans-alveolar, surgical or open method, Indications, surgical procedure. Dental elevators: uses, classification, principles in the use of elevators, commonly used elevators. Complications of Exodontia - Complications during exodontia Common to both maxilla and mandible. Post-operative complications - Prevention and management of complications</p>

8	<b>MEDICAL EMERGENCIES IN DENTAL PRACTICE</b>	Primary care of medical emergencies in dental practice particularly - (a) Cardio vascular (b) Respiratory (c) Endocrine (d) Anaphylactic reaction (e) Epilepsy
9	<b>EMERGENCY DRUGS &amp; INTRA MUSCULAR I.V. INJECTIONS</b>	Applied anatomy, Ideal location for giving these injections, techniques etc
10	<b>MEDICAL ETHICS</b>	

#### **BDS IV YEAR**

<b>S NO</b>	<b>TOPICS</b>	<b>OBJECTIVES</b>
1	<b>DRAINAGE &amp; DEBRIDEMENT</b>	Purpose of drainage in surgical wounds Types of drains used Debridement: purpose, soft tissue & bone debridement.
2	<b>CLOSURE OF WOUNDS</b>	Suturing: Principles, suture material, classification, body response to various materials etc.
3	<b>ACCESS</b>	Intra-oral: Mucoperiosteal flaps, principles, commonly used intra oral incisions. Bone Removal: Methods of bone removal. Use of Burs: Advantages & precautions Bone cutting instruments: Principles of using chisel & osteotome. Extra-oral: Skin incisions - principles, various extra-oral incision to expose facial skeleton. a) Submandibular b) Pre auricular c) Incision to expose maxilla & orbit d) Bicoronal incision
4	<b>IMPACTED TEETH</b>	Incidence, definition, aetiology. (a) Impacted mandibular third molar. Classification, reasons for removal, Assessment - both clinical & radiological Surgical procedures for removal. Complications during and after removal,

		Prevention and management. (b) Maxillary third molar, Indications for removal, classification, Surgical procedure for removal. (c) Impacted maxillary canine Reasons for canine impaction, Localization, indications for removal, Methods of management, labial and palatal approach, Surgical exposure, transplantation, removal etc
5	<b>PRE-PROSTHETIC SURGERY</b>	Definition, classification of procedures (a) Corrective procedures: Alveoloplasty, Reduction of maxillary tuberosities, Frenectomies and removal of tori. (b) Ridge extension or Sulcus extension procedures Indications and various surgical procedures (c) Ridge augmentation and reconstruction. Indications, use of bone grafts, Hydroxyapatite Implants - concept of osseointegration .Knowledge of various types of implants and surgical procedure to place implants
6	<b>DISEASES OF THE MAXILLARY SINUS</b>	Surgical anatomy of the sinus. Sinusitis both acute and chronic Surgical approach of sinus - Caldwell-Luc procedure Removal of root from the sinus. Oro-antral fistula - aetiology, clinical features and various surgical methods for closure
7	<b>DISORDERS OF T.M.JOINT</b>	Applied surgical anatomy of the joint. Dislocation - Types, aetiology, clinical features and management. Ankylosis - Definition, aetiology, clinical features and management Myo-facial pain dysfunction syndrome, aetiology, clinical features, management- Non surgical and surgical. Internal derangement of the joint. Arthritis of T.M. Joint.
8	<b>INFECTIONS OF THE ORAL CAVITY</b>	Introduction, factors responsible for infection, course of odontogenic infections, spread of odontogenic infections through various facial spaces. Dento-alveolar abscess - aetiology, clinical features and management. Osteomyelitis of the jaws - definition, aetiology, pre-disposing factors, classification, clinical features and management. Ludwig's angina - definition, aetiology, clinical features, management and complications

9	<b>BENIGN CYSTIC LESIONS OF THE JAWS</b>	Definition, classification, pathogenesis. Diagnosis - Clinical features, radiological, aspiration biopsy, use of contrast media and histopathology. Management - Types of surgical procedures, Rationale of the techniques, indications, procedures, complications etc.
10	<b>TUMOURS OF THE ORAL CAVITY</b>	General considerations Non odontogenetic benign tumours occurring in oral cavity - fibroma, papilloma, lipoma, ossifying fibroma, mynoma etc. Ameloblastoma - Clinical features, radiological appearance and methods of management. Carcinoma of the oral cavity - Biopsy - types TNM classification. Outline of management of squamous Cell carcinoma: surgery, radiation and chemotherapy Role of dental surgeons in the prevention and early detection of oral cancer
11	<b>FRACTURES OF THE JAWS</b>	General considerations, types of fractures, aetiology, clinical features and general principles of management. mandibular fractures - Applied anatomy, classification. Diagnosis - Clinical and radiological Management - Reduction closed and open Fixation and immobilisation methods Outline of rigid and semi-rigid internal fixation. Fractures of the condyle - aetiology, classification, clinical features, principles of management. Fractures of the middle third of the face. Definition of the mid face, applied surgical anatomy, classification, clinical features and outline of management. Alveolar fractures - methods of management Fractures of the Zygomatic complex Classification, clinical features, indications for treatment, various methods of reduction and fixation. Complications of fractures - delayed union, non-union and malunion
12	<b>SALIVARY GLAND DISEASES</b>	Diagnosis of salivary gland diseases' Sialography, contrast media, procedure. Infections of the salivary glands Sialolithiasis - Sub mandibular duct and gland and parotid duct. Clinical features, management. Salivary fistulae Common

		tumours of salivary glands like Pleomorphic adenoma including minor salivary glands.
13	<b>JAW DEFORMITIES</b>	Basic forms - Prognathism, Retrognathism and open bite. Reasons for correction. Outline of surgical methods carried out on mandible and maxilla.
14	<b>NEUROLOGICAL DISORDERS</b>	Trigeminal neuralgia - definition, aetiology, clinical features and methods of management including surgical. Facial paralysis - Aetiology, clinical features. Nerve injuries - Classification, neurohaphyetc
15	<b>CLEFT LIP AND PALATE</b>	Aetiology of the clefts, incidence, classification, role of dental surgeon in the management of cleft patients. Outline of the closure procedures
16	<b>GENERAL ANAESTHESIA</b>	Concept of general anaesthesia. Indications of general anaesthesia in dentistry. Preanaesthetic evaluation of the patient. Pre-anaesthetic medication - advantages, drugs used. Commonly used anaesthetic agents. Complication during and after G.A. I.V. sedation with Diazepam and Medozolam. Indications, mode of action, technique etc. Cardiopulmonary resuscitation Use of oxygen and emergency drugs. Tracheostomy.
17	<b>ORAL IMPLANTOLOGY</b>	

### **PROGRAM ASSESSMENTS**

1. Written Exams – Terminal and Professional exams (Subjective and objective)
2. Practical Exams – Preclinical and Clinical Exams in 4th Professional- Include clinical procedure, Spotting, Table and Grand viva
3. Student Self-Assessment by experiences obtained during daily clinical activity.
4. Internal assessment by faculty (performance based during clinical posting and Lab procedures and log book maintenance).
5. Formative assessment- subject wise timely class test (Subjective/ objective)

**RECOMMENDED BOOKS:**

1. Impacted teeth; Alling John F &etal.
2. Principles of oral and maxillofacial surgery; Vol.1,2& 3 Peterson LJ &etal.
3. Text book of oral and maxillofacial surgery; Srinivasan B.
4. Handbook of medical emergencies in the dental office, Malamed SF.
5. Killeys Fractures of the mandible; Banks P.
6. Killeys fractures of the middle 3rd of the facial skeleton; Banks P.
7. The maxillary sinus and its dental implications; McGovanda
8. Killey and Kays outline of oral surgery – Part-1; Seward GR &etal
9. Essentials of safe dentistry for the medically compromised patients; McCarthy FM
10. Oral & maxillofacial surgery, Vol 2; Laskin DM
11. Extraction of teeth;Howe, GL
12. Minor Oral Surgery; Howe.GL
13. Contemporary oral and maxillofacial surgery; Peterson I.J.& EA
14. Oral and maxillofacial infections; Topazian RG & Goldberg MH