

UNMRP
UNIVERSITY NATIONAL MEDICAL RESIDENCY PROGRAM
PAKISTAN

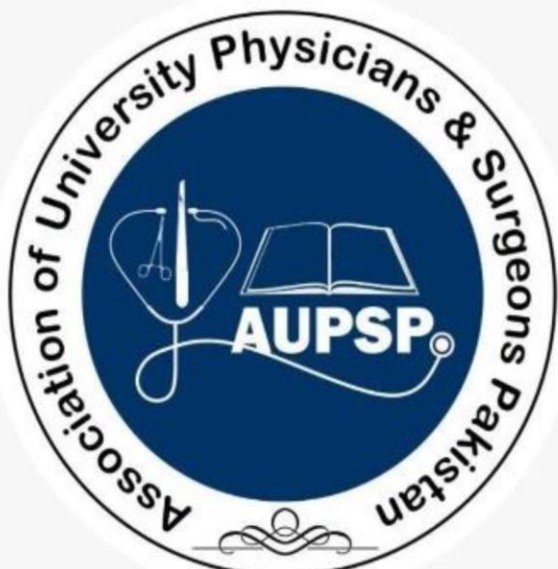
UNIFIED CURRICULA REGISTRY
MEDICAL UNIVERSITIES OF
PAKISTAN

CURRICULUM

MASTER OF DENTAL
SURGERY

ORAL & MAXILLOFACIAL SURGERY

Four Years, Residential, Clinical, Stipend based, Full time



University National Medical Residency program Pakistan

Table of Contents

PROGRAM MISSION:	3
PROGRAM OUTCOMES:	3
PROGRAM OUTLINE:	7
COURSE OF STUDY:	8
AIMS	8
MODULE 1.....	10
Principles Of Asepsis & Infection Control.....	14
Surgically important and communicable microbes related to OMFS.....	14
Differentiation between sterilization, disinfection, asepsis etc.	14
Different techniques of instrument sterilization by heat, gas and by chemicals	14
Methods of maintenance of sterility in dental surgery units, and OT rooms	14
Methods of scrubbing, gowning, gloving, and assisting the surgical staff	14
Managing postsurgical asepsis & documentation/ reporting of unfortunate incidents.	14
OBJECTIVES:	15
TOPICS:	Error! Bookmark not defined.
MODULE 4:	17
TOPICS:	Error! Bookmark not defined.
B. CLINICAL PORTFOLIO	26

CURRICULUM

MDS (ORAL & MAXILLOFACIAL SURGERY)

PROGRAM MISSION:

MDS is the four years master training clinical program in oral & maxillofacial surgery (OMFS), focused on serial training of the inducted residents. The outcome based curricular format is structured on the basis of behavioral and cognitive philosophies for the development of the residents.. The mission of the program is to provide progressive and clinical based closely supervised training to develop professionals, committed to serve with the blend of competent, ethical, caring attitude to the community and world widely.

PROGRAM OUTCOMES:

Postgraduates, MDS in oral & maxillofacial surgery program should be able to comprehend fundamental principles of surgical & medical management of the problems, and comprehensive knowledge to perform basic as well as complex procedures in the specialty. The resident will learn to work as a team member with other disciplines. The postgraduates will be able to apply foundational as well as advance techniques of evaluation, diagnosis, and management in clinical practice.

COGNITION:

The learning outcomes at the application level is the gold standard. Therefore, the candidate will be able to:

- Relate how body function gets altered in diseased status.
- Request and justify investigations and plan management for medical disorders.
- Assess new medical knowledge and apply it to the setting.
- Apply quality assurance procedures in daily work.

SKILLS.

Written Communication Skills:

The residents will be able to:

- Correctly write updated medical records, which are clear, concise, and accurate.

University National Medical Residency program Pakistan

- Write clear management plans, discharge summaries and referral letters to other specialties.
- Demonstrate competence in academic writing.

Verbal Communication Skills:

The residents will be able to:

- Establish professional relationships with patients and their relatives to extract history, conduct physical examination and to provide precise management.
- Demonstrate command on scientific and sensible language in seminars, bedside sessions, outpatients' rooms, and other work situations.
- Demonstrate the ability to communicate clearly and specific to the patients, their relatives, and other health professionals.
- Demonstrate competence in presentation skills.

Examination Skills: The residents will be able to:

- Perform an accurate physical examination in medical and OMFS health problems.
- Interpret physical signs after examination so as to formulate management plan.

Patient Management Skills: The residents will be able to:

- Interpret and integrate the history & examination findings and conclude an appropriate differential diagnosis or definitive diagnosis.
- Demonstrate competence in problems identification, analysis, and their management with the use of appropriate resources and interpret of lab results.
- Apply knowledge of therapeutic interventions in the field of oral & maxillofacial Surgery.
- Prioritize different problems within a time frame.

University National Medical Residency program Pakistan

Research Skills: The residents will be able to:

- Use evidence-based medicine and its guidelines.
- Conduct research by using accurate research methodology and statistics.
- Ability to guide colleagues in conducting research with scientific study design.
- Interpret and conclude results of various research articles.

Patient's Care Skills: The residents will be able to:

- Establish an empathetical relationship with patients in order to ease their illnesses and sufferings.
- Facilitate in the transfer of medical information, important for the management and prevention of disease.
- Demonstrate bio-psycho-social factors in the assessment and management of a patient.
- Consider the interest of the patient and community as a paramount factor and should not be subservient to one's own personal interest.

Self-Development Skills: The residents will be able to:

- Demonstrate respect for every human irrespective of ethnic background, cultural, socioeconomic, and religious status.
- Deal with patients in a non-discriminatory or non-prejudice manner.
- Deal with patients with honesty and compassionate manner.
- Demonstrate flexibility and willingness to accept changing circumstances.
- Foster the habit of self-education and its reflection in order to constant update and refresh knowledge and skills and commitment to continuing education.
- Recognize the element of stress in self and others, and deal with this stress, enable to support medical colleagues and allied health workers.

University National Medical Residency program Pakistan

- Handle complaints amicably including self-criticism and criticism by colleagues or patients.
- Understand the importance of obtaining and valuing a second opinion.

Skills Towards Society: The residents will be able to:

- Understand the social and governmental aspects of health care provisions.
- Offer professional services while keeping the cost effectiveness and care of individuals as a paramount importance.

Apply an understanding of available hospital and community-based resources for patients and community

University National Medical Residency program Pakistan

PROGRAM OUTLINE:

The scheme of training of residents for MDS (OMFS) is as follows:

SPECIFIC COMPETENCIES

YEAR	ACTIVITIES	
Year One	Specialty Training Mandatory Workshops* Synopsis Submission	<ul style="list-style-type: none"> • Continuous Internal Assessment/Workplace Based Assessment • Portfolio
Year Two	Specialty training Six Months Rotation (two months each) at least three of the following five <ul style="list-style-type: none"> • Anesthesia & Intensive Care (ICU)/General Surgery • ENT/ Neurosurgery • Plastic surgery • Prosthodontics/ Periodontics • Orthodontics/ Maxillofacial Diagnostic Radiology At the end of 24 months <ul style="list-style-type: none"> • Intermediate Examination • Log Book 	
Year Three	Specialty Training Specialty Training Thesis Submission	
Year Four	At the end of 48 months <ul style="list-style-type: none"> • Final Examination • Log Book 	

Mandatory Workshops

1. Basic Life Support (BLS)
2. Biostatistics & Research Methodology
3. Computer & Microsoft Office Skills
4. Surgical & Communication Skills
5. Synopsis & scientific writing

COURSE OF STUDY:

AIMS

- Evaluate oral and maxillofacial surgery (OMFS) patient's health and develop strategies to identify patients at risk of medical problems, to assess the severity of those risks and manage medical emergencies in OMFS practice.
- Use and interpret maxillofacial imaging to evaluate OMFS issues.
- Essentials of oral medicine applicable in OMFS.
- Medically compromised patients' consideration coming to OMFS.
- Diagnose and treat the benign odontogenic and non-odontogenic pathologies.
- Diagnose and manage patients with oral malignant pathologies.
- Manage patients with maxillofacial trauma independently or as a team member in poly trauma patients.
- Diagnose and manage patients with temporomandibular joint disorders.
- Diagnose and manage patients with congenital and acquired facial asymmetries or defects.
- Able to reconstruct maxillofacial soft and hard tissues defects with loco-regional & distant flaps, and free grafts independently or in teamwork with other specialties.
- Use of dental implants and alloplastic materials in dentistry.
- Perform basic and advance complex OMFS procedures with acumen and expertise.
- To incorporate multidisciplinary team approach in complex traumatic and pathological conditions.
- Incorporate research in OMFS practice.
- Use of evidence-based medicine and guidelines.
- Conduct research individually with standard research methodology and statistics. Guide others in research programs by using scientific method for study designs, methodology and statistics.

University National Medical Residency program Pakistan

A. TEACHING & TRAINING MODULES OF MDS ORAL & MAXILLOFACIAL SURGERY

MODULE NO.	MODULE TITLE
Module 1	Principles of oral and maxillofacial surgery and Wound Healing Medical problems and emergencies & Oral Medicine in OMFS Management of hospitalized patients Sedation, Local and General Anesthesia including Difficult Intubation Medico-Legal and Ethical Issues in Oral Maxillofacial Surgery
Module 2	Principles of Exodontia (simple/ complicated / impactions) Oral & Maxillofacial Radiology Oral & Maxillofacial Trauma Infections (Bacterial, Viral, Fungal, and other Microbials)
Module 3	Principles of Endodontic Surgery Preprosthetic Surgery Dental Implant Surgery
Module 4	Management of Benign Odontogenic & Non-odontogenic Lesions Diseases of the Maxillary Sinus Salivary Glands Diseases Biopsy Techniques Differential Diagnosis for Oral & Maxillofacial Pathologies
Module 5	Pre-cancerous Lesions & Conditions Oral Malignancies Principles of Chemotherapy and Radiotherapy in Head & Neck Cancer Reconstruction of Maxillofacial Defects
Module 6	Temporomandibular and other facial pain disorders Advance orofacial implants & Alloplastic materials in dentistry
Module 7	Fundamentals of orthognathic surgery Facial cosmetic surgery including post-traumatic facial deformities
Module 8	Syndromes of head and neck Dentofacial and craniofacial deformities

University National Medical Residency program Pakistan

MODULE 1

OBJECTIVES:

The trainees at the end of the module should be able to:

Follow basic principles of surgery

Take history and evaluate preoperative health status of the surgical patients.

Basic Knowledge of types and importance of consent and take verbal and written consent in OMFS.

Understand healing of surgically created or accidental wounds.

Recognize and manage common medical problems and emergencies in routine practice

Management of medically compromised patients in OMFS

Cross infection control and basic knowledge of wound contamination, and aseptic techniques.

Carry out pre-anesthetic evaluation and preparation of the patient for general anesthesia and sedation.

Use local anesthesia and sedation techniques.

Manage common complications of general anesthesia and difficult intubation.

Provide care to the surgical patients admitted to hospital.

Medico-legal and ethical issues including incidence recording and referral,

age assessment, trauma and blast injuries evaluation, and any other related issue in oral maxillofacial surgery patients.

Principles of Surgery

Pre-surgical evaluation of the health status of the patient

Prevention, management of medical emergencies and referral to appropriate medical colleagues.

Drugs of emergency kit in dentistry & OMFS.

Developing surgical diagnosis, Basic necessities for surgery, aseptic measures technique, incision and flap design, tissue handling, hemostasis, dead space management, decontamination and debridement, suturing techniques, oedema control, patient general health and nutrition.

Wound Healing

Epithelization process.

University National Medical Residency program Pakistan

Healing stages of soft and hard tissues

Methods, and significance of wound healing.

Facial neuropathy of traumatic origin and nerve healing.

Infection & Cross Control at Surgical Practice

knowledge of communicable pathogenic microorganisms and normal microbiological flora. Methods of sterilizations with latest guidelines. Operatory disinfection and preparation of the surgical staff for minor and major oral and maxillofacial surgical procedures

Anesthesia

Techniques of local, sedation & general anesthesia in dentistry.

Requesting preoperative GA fitness assessment by anesthesia department and general anesthesia preparation of the patients including medically compromised patients in OMFS.

Classification, chemistry, and pharmacologic effects of local and general anesthetic drugs mechanism of action, absorption, fate, and excretion of local & general anesthetic drugs adverse effects and drug interactions of local and general anesthetic drugs preparations and dosage of local anesthetic drugs, their general therapeutic uses and side effects Methods of administration and mechanisms of action of general anesthetic drugs including inhalation agents and intravenous agents' differentiation between analgesia and sedation and their application in oral surgery.

Hospitalized patients Management

Taking Consent.

Consultations.

Emergency department consultations

Inpatient consultation requesting a consultation from other specialties.

Hospitalizing patients for oral and maxillofacial Care

Decision making for hospitalization

Daycare surgery facilities

Operating Room Protocols.

Different techniques of instrument sterilization by heat, gas and by chemicals Methods of maintenance of sterility in dental surgery unit, OT room

Methods of scrubbing, gowning, gloving, and assisting the surgical staff

Managing postsurgical asepsis & documents/ reports of unfortunate incidents

Surgeon, assistant, paramedics, and equipment preparation

University National Medical Residency program Pakistan

Postoperative Responsibilities.

Postoperative management and monitoring of patients

Management of postoperative complications i.e., airway issue, nausea & vomiting, fever, atelectasis, fluids & electrolytes, transfusion etc.

Patient's electrolytes, implants, and flaps monitoring

Medicolegal and Ethical Issues in Oral & Maxillofacial Surgery

Medico-legal and ethical issues including age assessment trauma and blast injuries evaluation and any other related issue of the oral maxillofacial surgery patients.

Incidence recording and referral

Oral & Maxillofacial Oral Medicine

Developmental disturbances of the oral region

Epithelial disorders

Bullae, vesicles, colored lesions etc.

Immune-mediated disorders

Connective tissue lesions

Diseases of blood and blood transfusion

Molecular based adjuncts

Physical and chemical injuries

Radiographs, laboratory investigation and

Presumptive clinical differential diagnosis in oral medicine

Referral informed consent and shared risk in oral medicine

MODULE II

OBJECTIVES:

The trainees at the end of the module should be able to:

Advise and interpret targeted radiological investigation in aid to clinical diagnosis

Perform atraumatic simple and complex dental extraction

Diagnose and manage impacted, canine and third molars or any other tooth.

Manage complications associated with all kinds of exodontia

University National Medical Residency program Pakistan

Surgically important and communicable microbes related to OMFS

Differentiation between sterilization, disinfection, asepsis etc.

Different techniques of instrument sterilization by heat, gas and by chemicals

Methods of maintenance of sterility in dental surgery units, wards, and OT rooms

Methods of scrubbing, gowning, gloving, and assisting the surgical staff

Managing postsurgical asepsis in OMFS

Basic Principles of Dental Radiology

Intra-oral and extra-oral plain radiological techniques; Periapical view x-rays orthopantomograph (OPG), PA mandible, lateral oblique, Towne's view, occlusal views, occipitomental view with different angulations, Submento-vertex view, TMJ views.

Specialized imaging techniques; Arthrography, CT scan, MRI, CT Angio, MRA,

Scintigraphy.

Exodontia

Principles of extraction

Indications and contraindications

Types of extraction

Complications and their management

Principles of elevators and elevators used in oral surgery.

Classification, indications and contraindications, diagnosis, procedures, complications, and management of impacted teeth

Surgical exposure of unerupted teeth, surgical repositioning of partially erupted teeth & transplantation of teeth

Oral & Maxillofacial Trauma

Surgical anatomy of head and neck.

Surgical approaches to facial skeleton

Etiology of facial injuries

Basic principles of treatment

Primary care of OMFS trauma patients

Soft tissue injury of face and scalp:

University National Medical Residency program Pakistan

Classification and management of soft tissue wounds, injuries for special treatment.

Dento-alveolar fractures, examination, diagnosis, classification, treatment, and postoperative care.

Mandibular fractures, classification, examination and diagnosis, general principles of treatment, complications, their management, and nutritional aspect.

Fractures of middle third of the facial skeleton: classification of fracture of maxilla and their management

Management of fractures of the naso-orbito-ethmoidal region.

Fracture Of zygomatic complex, classification, examination and diagnosis, principles of treatment, complications, and their management.

Orbital fractures, diagnosis, management and need for referral

Ophthalmic injuries, minor injuries, non-perforating injuries, perforating injuries, retro-bulbar hemorrhage, and traumatic optic neuropathy management.

Nasal fractures, diagnosis, and management.

Traumatic injuries to frontal sinus, diagnosis, classification, and treatment.

Pediatric maxillofacial trauma diagnosis and its management strategies with postoperative care.

Geriatric maxillofacial trauma, gunshot wounds, war injuries and management methods.

Healing and complications of maxillofacial trauma patients.

Principles Of Asepsis & Infection Control

Surgically important and communicable microbes related to OMFS

Differentiation between sterilization, disinfection, asepsis etc.

Different techniques of instrument sterilization by heat, gas and by chemicals

Methods of maintenance of sterility in dental surgery units, and OT rooms

Methods of scrubbing, gowning, gloving, and assisting the surgical staff

Managing postsurgical asepsis & documentation/ reporting of unfortunate incidents

Commonly used antimicrobials and analgesics

Basic principles of prophylactic and therapeutic antibiotic use

University National Medical Residency program Pakistan

Basic principles of analgesic use

Indications, precautions & contraindications of antibiotic therapy

Drug interactions, advantages, and disadvantages of combination therapy

Significance of culture and sensitivity testing with basic knowledge of dosage and routes of administration & their issues

Consequences of under or over dosage, allergic reactions to antibiotics and analgesics and their management

MODULE III

OBJECTIVES:

The trainees at the end of the module should be able to comprehend:

Various procedures of alveolar ridge extension (Augmentation) and soft tissue extension (Vestibuloplasty) in preprosthetic surgery

Various techniques for placement of dental implants

Concept of osseointegration, complications and their management in implant surgery.

Principles of endodontic surgery

Pre-Prosthetic Surgery

Objectives of preprosthetic surgery

Principles of patient evaluation and treatment planning

Recontouring of alveolar ridges, alveoloplasty techniques, and maxillary tuberosity reduction (hard tissue)

Buccal exostosis and excessive undercuts

Lateral palatal exostosis, mylohyoid ridge reduction, genial tubercle reduction

Tori removal, maxillary tori, mandibular tori, maxillary tuberosity reduction (soft tissue)

Mandibular retromolar soft tissue pad reduction

University National Medical Residency program Pakistan

Lateral palatal soft tissue excess

Unsupported hypermobile tissue

Inflammatory fibrous hyperplasia, labial frenectomy, lingual frenectomy

Immediate dentures alveolar ridge preservation, overdenture, surgery advanced
Preprosthetic surgical procedures

Soft tissue surgery for ridge extension of the mandible

Transpositional flap vestibuloplasty (lip switch)

Vestibule and floor of mouth extension procedures

Soft tissue surgery for maxillary ridge extension

Submucosal vestibuloplasty maxillary vestibuloplasty with tissue grafting

Correction of abnormal ridge relationships

Segmental alveolar surgery in the partially edentulous patient,

Correction of skeletal abnormalities in three dimensions in the edentulous patient

Dental Implants

Biologic and functional considerations of dental implants.

Hard tissue interface soft tissue implant interface

Biomechanical considerations for implants.

Preoperative assessment and treatment planning.

Initial observations and patient introduction

Chief complaint, medical history, and medical risk assessment

Dental history and clerking

Intraoral examination, diagnostic casts, photographs, and radiographic examination

Prosthetic considerations in implant treatment planning

Surgical treatment planning considerations, final treatment planning

Surgical techniques (basic), surgical armamentarium, surgical preparation

Implant site exposure, implant placement, flap reflection and preparation for osteotomy

Insertion of implant, suturing flap

Postoperative management and uncovering, implant stability and complications

Implant components, implant body or fixture, cover or healing screw, healing or

Interim abutment, impression coping, implant analog or replica, implant abutment

University National Medical Residency program Pakistan

and prosthesis retaining screw

Implant prosthetic options;

Options for the edentulous patients, options for the partially edentulous patient

Prosthetic complications in implant business

Principles of Endodontic Surgery

Periapical surgery

Diagnosis and need for surgical endodontics

Indications and contraindications

Surgical procedure and corrective surgery

Indications and contraindications of surgical procedure

Adjuncts to periapical surgery

Magnification devices, surgical loops & microscope and fiberoptics use

Guided tissue regeneration

Alveolar bone augmentation

Plasma rich proteins (PRP)

MODULE 4:

OBJECTIVES:

Comprehend principles of management of odontogenic infections

Manage simple as well complex odontogenic infections

Diagnose and treat diseases of maxillary sinus of odontogenic origin

Perform endodontic surgery

Provide oral and dental care to patients undergoing radiotherapy and chemotherapy for malignancies

Diagnose and manage of salivary glands disease

Principles of Management and Prevention of Odontogenic Infections

Microbiology of odontogenic infections,

Pathophysiology of odontogenic infections

Principles of management odontogenic infections

University National Medical Residency program Pakistan

Principles of prevention of infection

Principles of prophylaxis of wound infection,

Principles of prophylaxis against metastatic infection

Prophylaxis against infective endocarditis

Prophylaxis in patients with prosthetic joint and cardiovascular diseases in OMFS

Complex Odontogenic Infections

Anatomy and boundaries of facial spaces microbiology and antibiotic management

Medical comorbidities

Deep facial space infections,

Infections arising from maxillary teeth

Infections arising from mandibular teeth

Deep cervical facial space infections

Management of facial space infections

Airway management

Surgical management of cavernous sinus thrombosis & necrotizing fasciitis

Acute suppurative osteomyelitis, chronic suppurative osteomyelitis, chronic sclerosing osteomyelitis and proliferative periostitis (Garre osteomyelitis)

Actinomycosis

Candidiasis, other fungal and protozoal related infections

Management of the Patient Undergoing Radiotherapy or Chemotherapy

Dental management of patients undergoing radiotherapy to the head and neck

Dental management of patients receiving systemic chemotherapy for malignant disease

Dental management of patients with medication-related osteonecrosis of the jaw

Diseases of the Maxillary Sinus

Embryology and anatomy

Clinical and radiographic examination of the maxillary sinus

Nonodontogenic infections of the maxillary sinus

Odontogenic infections of the maxillary sinus

University National Medical Residency program Pakistan

Treatment of maxillary sinusitis, antral pseudocysts

Complications of oral surgery involving the maxillary sinus,

Oroantral communications:

Immediate treatment

Oroantral Fistulae: delayed treatment and techniques

Diagnosis and Management of Salivary Gland Disorders

Embryology, anatomy, and physiology

Diagnostic modalities history and clinical examination

Salivary gland radiology

Plain-film radiographs sialography computed tomography, magnetic resonance imaging,

Ultrasonography, and positron emission tomography

Salivary glands scintigraphy (radioactive isotope scanning)

Salivary gland endoscopy (sialo-endoscopy)

Sialo-chemistry, fine-needle aspiration biopsy, salivary gland biopsy

Obstructive salivary gland disease: sialolithiasis

Mucous retention and extravasation phenomena

Mucocele & ranula

Salivary gland infections

Necrotizing sialo-metaplasia

Sjogren's syndrome

Traumatic salivary gland injuries

Salivary gland neoplasms benign salivary gland tumors

Malignant salivary gland tumors

Soft Tissue Biopsy Techniques and Surgical Principles

Prebiopsy monitoring, basic tenets of follow-up and referral

General principles of biopsy, incisional biopsy,

Excisional biopsy, aspiration biopsy and post biopsy monitoring

Tissue stabilization, tissue hemostasis, wound closure, handling of tissues

Specimen care, suture tagging of specimens (margin identification)

University National Medical Residency program Pakistan

Submission of specimens, biopsy submission and data form processing

Intraosseous (hard tissue) biopsy techniques and principles

Mucoperiosteal flaps & osseous window, precautionary aspiration, specimen management, post biopsy follow-up, basic surgical goals

Eradication of pathologic condition and Functional rehabilitation of patients

Differential Diagnosis for Oral & Maxillofacial Pathologies

Knowledge the odontogenic pathologies that can involve maxillofacial region along with their medical management

Develop differential diagnosis for oral & maxillofacial pathologies

Know goals and principles of surgical management of oral & maxillofacial pathologies

Know how to diagnose and manage patients with cysts and odontogenic and non-odontogenic tumors of the OMFS region

Surgical management of cysts and cysts like lesions of the jaws

Management of non-odontogenic benign tumors of orofacial region

Giant cell lesions of jawbones

Fibro-osseous lesions of jawbones

MODULE 5

OBJECTIVE:

The trainees should be able to:

Comprehend patents with precancerous lesions and conditions and their management

Screen and diagnose the patients for oral cancer

Comprehend diagnostic radiology in head and neck cancer

Stage the tumors and select appropriate surgical treatment

Consult with oncologist for chemotherapy and radiotherapy of orofacial cancer

Work as team/tumor board member in the management of head and neck cancer

Formulate appropriate reconstruction strategies for patients with maxillofacial defects

Diagnosis of various precancerous lesions and conditions and their management

The molecular biology of head and neck cancer

Prognostic factors in oral, oropharyngeal, and salivary gland cancer

University National Medical Residency program Pakistan

Molecular biology of human papillomavirus- mediated head and neck cancer

The team approach in the management of head and neck cancer

The role of diagnostic radiology in head and neck cancer

Health related quality of life in head and neck surgery

Radiotherapy in the management of orofacial cancer

Chemotherapy and targeted agents

Anesthesia and airway management for oral cancer and microvascular surgery

Ablative surgery for cancer of the tongue, floor of mouth, and mandible, maxilla, nasal, and paranasal sinuses

Primary neck masses, skull base tumors, neck dissection and skin cancer of the face

Dental, oral mucosal, palliative & terminal care of cancer patients and their counseling

Vascular lesions of the head and neck

Pre-Cancerous Lesions & Condition

Diagnosis of various precancerous lesions and conditions and their management

White and colored conditions and lesions of oral mucosa

Causative factors and patient counseling

Oral Malignances

Identification of etiology and risk factors and the preventions of oral cancer

Clinical evaluation and differential diagnosis of suspected lesions of the head and neck

Principles and mode of action of chemotherapy and associated medicines.

Manage dental problems in patients undergoing brachytherapy, radiotherapy & chemotherapy

Surgical Reconstruction of Maxillofacial Defects

Principles of reconstruction and microvascular surgery

Reconstruction of the maxilla and mandible

Local and regional flap reconstruction of maxillofacial defects

The radial forearm and knowledge of common free vascularized flaps: fibula, scapula, latissimus dorsi & vascularized iliac crest grafts

The anterolateral thigh and other perforator flaps, any other flaps used in head and neck reconstruction and combinations of grafts

University National Medical Residency program Pakistan

Facial transplantation and tissue engineering

Cutaneous and mucosal lip lesions and their reconstruction

Prosthetic rehabilitation and implantology after cancer ablation

Biologic basis of bone reconstruction

Bone morphogenetic proteins; advantages, disadvantages

Assessment of patient in need of reconstruction

Prosthetic reconstruction of the midface

Use of CAD-CAM and stereolithography for maxillofacial surgery

MODULE 6

OBJECTIVE:

The trainees at the end of the module should be able to:

Evaluate and manage patients of facial pain disorders

Evaluate and develop management strategies (medical and surgical) for TMJ disorders

Management of Temporomandibular Disorders

Classification of temporomandibular joint disorders

Internal derangement of temporomandibular joint (TMJ)

Degenerative joint disease (arthrosis, osteoarthritis)

Systemic arthritic conditions, chronic recurrent dislocation

TMJ ankylosis

Neoplasia infections

Reversible treatment of TMJ disorders

Temporomandibular joint surgery

Arthrocentesis arthroscopy disk-repositioning surgery

Disk repair or removal, modified condylotomy, total joint replacement, combined orthognathic surgery and alloplastic temporomandibular joint reconstruction

Temporomandibular joint reconstruction in the growing patient

Facial pain disorders

Basics of pain neurophysiology

University National Medical Residency program Pakistan

Classification of orofacial pains

Evaluation and management of patient with orofacial pain

Neuropathic facial pains, trigeminal neuralgia, and pretrigeminal neuralgia or odontalgia resulting from deafferentation (atypical odontalgia)

Postherpetic neuralgia

Neuroma, burning mouth syndrome

Other cranial neuralgias

Chronic Headaches

Migraine, tension-type headache, and cluster headache

Other Chronic Head Pains of Dental Interest

Temporal arteritis (giant cell arteritis)

Indomethacin responsive headaches

MODULE 7

OBJECTIVE:

The trainees at the end of the module should be able to:

Analyze patients with facial deformities clinically and radiologically

Perform cephalometries for orthodontic and orthognathic planning

Devise definitive treatment plan

Know various orthognathic surgical techniques with emergencies and complications to correct common developmental and traumatic deformities

Diagnosing and treatment planning of deformities and conditions affecting facial skin

Surgical versus nonsurgical options to improve facial cosmetics

Surgical management of post acne scarring, facelift, blepharoplasty, otoplasty,

Know application of laser and cryosurgery in oral & maxillofacial surgery

Distraction osteogenesis in OMFS surgery

Fundamentals of Orthognathic Surgery

General assessment

University National Medical Residency program Pakistan

Radiographic analysis and imaging

Computerized cephalometrics for orthodontic and orthognathic planning

Orthodontic preparation and definitive treatment plans

The psychopathology of facial deformity and orthognathic surgery

The recording and transfer of orthognathic planning data and fixing techniques

Surgical and osteodistracton procedures

The surgical correction of common deformities, secondary cleft lip and palate deformities management and alveolar bone grafting

Rhinoplasty, emergencies, and complications

Feeding and postoperative nutritional care in operated maxillofacial region patients

Aesthetic Facial Surgery

Introduction and historical perspective

Detailed knowledge of face and neck structures including skin & underlying soft tissues.

Physiology of aging surgical versus nonsurgical options

Diagnosis and treatment planning of deformities and conditions affecting facial skin

Underlying facial muscles, bone, Eyelids, external ear

Nonsurgical procedures, topical skin care, chemical peels, laser resurfacing, dermal fillers, and neurotoxins (botulinum A)

Surgical management of post acne scarring, facelift, blepharoplasty, otoplasty,

Lower face and neck, face and midface, forehead and brows, eyelids, rhinoplasty, facial bone recontouring and facial transplantation

Laser Surgery

The application of laser technology in surgical treatment of lesions in OMFS region

Cryosurgery

Principles, applications of cryosurgery in the surgical management of OMFS region

Distraction Osteogenesis

Use of distraction osteogenesis technique in OMFS surgery

MODULE 8

OBJECTIVE:

University National Medical Residency program Pakistan

The trainees at the end of the module should be able to:

Diagnose and classify craniofacial deformities

Manage patients born with cleft lip and palate as team member

Know treatment options for common craniofacial deformities

Recent advances in oral & maxillofacial surgery

Detailed knowledge of the development of the face, head, and neck

Classification, diagnosis, and etiology of craniofacial deformities

Principles of craniofacial surgery and the management of complications

Psychosocial aspects of visual facial difference

Surgical management of craniosynostosis

Hemifacial microsomia, the disorder and its surgical management

Tracher Collins syndrome and Crouzon Syndrome

Osteodistraction, the present and the future, planning, types, and significance

Reanimation in congenital disorders

Current concepts in the management of cleft lip and palate deformity

Surgical management of cleft lip and palate patients

Techniques for cleft lip and cleft palate repair

Alveolar cleft & bone grafting, and cleft orthognathic surgery

Secondary cleft surgery

The role of the speech pathologist in the care of the patient with cleft palate

Secondary palatal surgery and pharyngoplasty

Orthodontics in clefts, knowledge of naso-endoscopy and other diagnostic techniques in the evaluation of speech and hearing

Concept of multidisciplinary team management

University National Medical Residency program Pakistan

B. CLINICAL PORTFOLIO

The level of competence to be achieved each year is as follows and Log Book will be maintained for all by the residents and monitored closely by the supervisor;

1. Observer status.
2. Assistant status.
3. Performs under supervision.
4. Performs independently.
5. Supervise others

1. CORE SKILLS FOR OMFS PRACTICE

S. no:	Procedure	1 st year		2 nd year		3 rd year		4 th year		Minimum Cases
		Level	Mini mum case	Lev el	Mini mum cases	Lev el	Mini mum cases	Lev el	Mini mum cases	
1.	History taking	3	10	4	25	4	25	5	20	50+30
2.	Communicating effectively with patients, families, and other related health team members	3	10	4	30	4	30	5	10	50+40
3.	Understanding and obtaining informed consent	3	10	4	30	4	30	5	10	50+40
4.	Performing clinical examination of OMFS region	3	20	4	30	4	30	4	20	100
5.	Ordering appropriate investigations	2	20	3	30	4	30	4	10	90
6.	Interpreting investigation results	2	30	3	30	4	20	5	10	90
7.	Ordering routine radiology & ultrasound for OMFS region	2	10	3	20	4	20	5	10	60
8.	Imaging for OMF problems: CT scan, MRI, doppler etc.	2	20	3	20	4	10	5	10	60
9.	Assessing patient fitness: for OMFS procedure	2	20	3	20	4	30	4	20	90
10.	Positioning of patient for diagnostic and operative OMFS procedures under Local & General Anesthesia	2	10	3	30	4	30	5	20	90
11.	Following basic management principles of hospitalized & medically compromised patient	1	10	2	20	3	30	4	30	50+40
12.	Post-operative OPD patient management and follow up	2	20	3	20	4	30	4	30	100

University National Medical Residency program Pakistan

13.	Post-operative management of the hospitalized patients	2	20	3	20	4	30	4	30	100
14.	Deciding & implementing final OMFS treatment	1	20	2	20	3	40	4	20	100
15.	Maintaining accurate patient records	2	20	3	20	4	40	5	20	100
16.	Diagnosis and management of OMF premalignant disorders	2	20	3	20	4	30	4	30	100
17.	Application of aseptic surgical techniques in OMFS	3	20	4	30	4	30	5	20	100
18.	Application of knowledge of basic principles of surgery	2	20	3	30	4	30	4	20	100
19.	Use & application of common surgical instruments, suture materials and techniques	2	10	3	40	4	40	5	10	100
20.	CPR & related management	2	2	3	2	4	2	4	4	10
Procedural skills:										
A) General										
1.	Suturing OMFS region soft tissues	2	20	3	15	4	15	4	15	65
2.	OMFS ward patient management	2	20	3	15	4	15	4	15	65
3.	OMFS OPD patient management	2	20	3	15	4	15	4	15	65
4.	Prescribing suitable medications	2	30	3	30	4	20	5	20	100
B) Minor Oral Surgery										
1.	Complicated exodontia cases under L/A	2	25	3	25	4	25	4	25	100
2.	Pre prosthetic surgery	2	15	3	15	4	15	4	15	60
3.	Management of impacted teeth	2	15	4	15	4	15	4	15	60
4.	Re-implantation of avulsed/luxated teeth	2	4	3	2	4	2	4	2	20
5.	Endodontic/periapical surgery	2	4	3	2	4	2	4	2	20
6.	Incisional & excisional biopsy OMF tissues	2	10	3	10	4	10	4	10	40
7.	OMF repair	2	4	3	2	4	2	4	2	10
8.	Dental implantology; including adjunct procedures	1	4	2	2	3	2	4	2	10
C) Anesthesia and Related										
1.	Nasogastric intubation	2	20	3	10	4	10	4	10	50
2.	Nasotracheal intubation	1	10	2	20	4	5	4	5	40
3.	i/v sedation & local anesthesia cases	2	5	3	5	3	5	4	5	20
4.	Tracheostomy	1	2	2	2	3	4	4	2	10
D) OMFS Infections										
1.	Diagnosis & management of Odontogenic & related fascial space infections in OMFS	2	10	3	10	4	5	4	5	30
2.	Diagnosis, prevention & management of the spread of bacterial, viral, fungal & protozoal infections related to OMFS	2	10	3	10	4	5	4	5	30
E) Facial Trauma Management										
1.	Dentoalveolar fractures	2	5	3	10	4	10	4	5	30
2.	Nasal fracture	2	5	3	10	4	10	4	5	30

University National Medical Residency program Pakistan

3.	Fracture mandible	2	5	3	20	4	10	4	15	50
4.	Fracture maxilla	2	5	3	20	4	5	4	10	40
5.	Fracture ZMC & orbit	2	5	3	20	4	5	4	10	40
6.	Fracture nose & frontal bone	1	5	2	5	3	5	4	10	25
F) TMJ related Pain Disorders										
1.	Non-surgical management of TMJ and related facial pain disorders	2	5	3	15	4	10	4	10	40
2.	TMJ Ankylosis surgeries	1	5	2	10	3	3	4	2	20
3.	Trigeminal neuralgia diagnosis & management	2	2	3	2	4	3	4	3	10
G) Orthognathic Surgery										
1.	Genioplasty & related surgical procedures	1	2	2	4	3	3	4	1	10
2.	Maxillary procedures	1	2	2	4	2	3	4	1	10
3.	Mandibular procedures	1	2	2	4	2	3	4	1	10
4.	Bone grafting procedures	1	2	2	4	3	3	4	1	10
H) OMF Pathology/Oncology										
1.	Management of oral submucous fibrosis	1	2	2	4	3	3	4	1	10
2.	Management of odontogenic & non odontogenic cysts & tumors	2	10	3	20	3	20	4	15	65
3.	Diagnosis & management of ulcerations & vesiculobullous lesions of OMF region	2	4	3	10	4	3	4	3	20
4.	Soft tissue extirpation	1	1	2	2	3	1	4	1	5
5.	Diagnosis & management of fibro-osseous lesions of OMF region	1	2	2	4	3	2	4	2	10
6.	Maxillectomy procedures	1	3	2	5	3	5	4	2	15
7.	Mandibulectomy/Resection procedures	1	3	2	5	3	5	4	2	15
8.	OMFS pre-malignancies & their management	1	1	2	2	3	1	4	1	5
9.	Soft tissue removal procedure	1	5	2	10	3	3	4	2	20
10.	Neck dissection procedure	1	1	2	6	3	2	4	1	10
I) Reconstructive & Plastic Surgery										
1.	Bone harvesting procedures	2	4	3	2	3	3	4	1	10
2.	Applying principles of bone plating and ORIF	1-3		4						10
3.	Regional & distant flaps*	1	2	2	5	3	2	4	1	10
4.	Free flaps*	1	1	2	2	3	1	3	1	5
J) Salivary Gland Disorders										
1.	Diagnosis & management of Sjogren's syndrome & surgical removal of ductal stones	2	3	3	4	4	1	4	2	10
2.	Mucocele removal Ranula treatment procedures	2	2	3	3	3	3	4	2	10
3.	Surgical removal of minor/major salivary glands	1	2	2	5	3	2	4	1	15
K) Cleft Lip Palate Surgery/Developmental Conditions										
1.	Primary cleft lip surgery*	1	1	2	5	3	2	3	1	10
2.	Primary cleft palate surgery*	1	1	2	5	3	2	3	1	10
3.	Alveolar bone grafting	2	1	2	5	3	2	4	1	10
L) Teaching/Education										

University National Medical Residency program Pakistan

Teaching surgical procedures to Under/Post- graduate Trainees	2	2	3	2	3	3	3	3	10
Oral scientific paper presentations	2	1	3	1	3	1	4	2	5

University National Medical Residency program Pakistan

2. CORE COMPETENCIES OF ROTATIONS

Training year	Specialty	Duration	Remarks
1.	Anesthesia & ICU or General Surgery	02 months	In years 2 & 3 rotations are mandatory for trainees, whereas in year 4 is optional & depends on the supervisor's choice
2.	ENT or Neurosurgery	02 months	
3.	Plastic surgery	02 months	
4.	Prosthodontics or Periodontics	01 month with the supervisor discretion	
5.	Orthodontics or Maxillofacial Diagnostic Radiology	01 month with the supervisor discretion	

ANESTHESIA & ICU:

Core training rotation objective:

The OMFS Resident should be trained in such a manner so that he/she is able to diagnose and accordingly manage cases requiring anesthesia and develop clinical skills as identified below to provide better patient care and improve the standard of Oral and Maxillofacial Surgical practice in Pakistan.

S. No.	Competencies	First month		Second month		Total cases
		Level	Case	Level	Case	
Clinical Skills						
1.	History taking & clinical examination of cases relevant to anesthesia	2	10	3	10	20
2.	Management of ICU admitted cases	2	10	3	10	20
3.	Interpretation of concurrent medical diseases	2	10	3	10	20
4.	Understanding and interpreting relevant medication of patients	3	10	4	10	20
5.	Organizing pre-op medication	3	10	4	10	20
6.	Interpretation of investigations relevant to anesthesia	2	10	3	10	20
7.	Planning and organizing postop pain management	3	10	4	10	20
Procedures						
1.	Airway management					
	Facemask & supraglottic airway devices	3	2	3	3	5
	Endotracheal intubation	3	10	3	15	25
	Management of difficult airway	3	5	3	5	10
2.	IV cannulation	3	10	3	15	25
3.	Use of anesthesia equipment	2	4	3	6	10
4.	Use of monitors (ICU)	2	10	3	15	25
5.	Lumbar puncture	2	2	2	2	5

University National Medical Residency program Pakistan

GENERAL SURGERY:

Core training rotation objective:

The purpose of rotation in General Surgery is that an OMFS resident learn the basic principles and acquire core competencies required for the practice of any discipline of surgery including Oral and Maxillo-facial Surgery. This should include participation in academic seminars, journal clubs, M & M meetings, CPCs, outpatient clinics, ward management and operation theatre. The candidate is expected to serve as a team member & not as an independent trainee on the on-call team for the A&E department for general surgery related emergencies.

These competencies are given below:

S. No.	Competencies	First month Level Cases		Second month Level Cases		Total cases
Patient Management						
1.	Elicit a pertinent history	3	20	4	20	40
2.	Communicate effectively with patients, families & health team (observed)	3	20	4	20	40
3.	Perform physical examination	3	20	4	20	40
4.	Order appropriate investigations	3	20	4	20	40
5.	Interpret the investigation results	3	20	4	20	40
6.	Assess fitness to undergo surgery	3	20	4	20	40
7.	Implement appropriate treatment	3	20	4	20	40
8.	Post-operative patient ward management and monitoring	3	20	4	20	40
9.	Maintain accurate records	3	20	4	20	40
Preoperative Preparation for Surgical Procedures						
1.	Use of aseptic techniques	3	20	4	20	40
2.	Positioning of patient for diagnostics and operative procedures	3	10	4	10	20
3.	Identification and appropriate use of common surgical instruments, suture materials and appliances	3	10	4	10	20
General Surgical Procedures						

University National Medical Residency program Pakistan

1.	Hemorrhage control	2	10	3	10	20
2.	Debridement, wound excision, closure/suture of wound	2	5	3	3	15
3.	Urethral catheterization	2	5	3	3	10
4.	Nasogastric intubation	2	10	3	3	20
5.	Tube thoracostomy	1	2	2	2	4
6.	Venesection	1	3	2	2	6
7.	Biopsy of neck lymph nodes	2	5	3	3	10
8.	Biopsy of skin lesions, subcutaneous lumps or swellings	2	5	3	3	10
9.	Excision of soft tissue tumors and cysts (surface energy)	1	3	2	3	6
10.	Cricothyroidotomy	2	1	3	1	2
11.	Percutaneous needle aspiration, preferably under ultrasound guidance	2	1	3	1	2
12.	Burn care	1	2	2	2	4
13.	Wound healing and perioperative complications	1	3	2	3	6
14.	Fluid and electrolyte balance	2	5	3	5	10
15.	Care of unconscious patients	2	5	3	5	10
16.	Replacement of fluid and nutrition	2	5	3	5	10
17.	Thyroid and parathyroid surgery	1	2	2	2	4
18.	ER abdominal trauma management	1	2	2	2	4

ENT/OTORHINOLARYNGOLOGY:

Core training rotation objective:

The OMFS resident should be trained in such a manner so that he/she should be able to diagnose and accordingly manage all the ENT and head & neck related surgical competencies identified & mentioned as under in this rotation program, with the sole objective of providing better patient care & improving the standard of oral & maxillofacial surgical expertise in practice in Pakistan.

The OMFS resident on 02 months rotation to ENT is expected to participate in basic ENT and head and neck surgery academic and clinical activities. This should include participation in academic seminars, journal clubs, M & M meetings, CPCs, outpatient clinics, ward management and operation theatre. The candidate is

University National Medical Residency program Pakistan

expected to serve as a team member & not as an independent trainee on the on-call team for the A&E department for ENT related emergencies. These competencies are given below:

S. No.	Procedure	Competency Levels				Total
		First month		Second month		
				level	Minimum cases	
level	Minimum cases					
1.	Preoperative preparation for various ENT procedures	2	15	3	10	25
2.	Basic Nasopharyngoscopy	2	2	3	3	05
3.	Basic FESS*	2	2	3	3	05
4.	Tracheostomy	2	2	3	3	10
5.	Anterior nasal packing	3	5	4	5	10
6.	Posterior nasal packing	3	5	4	5	10
7.	Antral lavage through proof puncture	3	5	4	5	10
8.	Removal of visible foreign body from nose and ear	2	5	3	5	10
9.	Management of Nasal fractures	3	5	4	5	10
10.	Intranasal antrostomy	2	2	3	3	05
11.	Caldwell-sinus antrostomy	3	5	4	5	10
12.	Direct laryngoscopy & biopsy	2	2	3	3	05
13.	Tonsillectomy	2	3	3	2	05
14.	Maxillectomy*	2	5	3	5	10
15.	Neck dissection*	2	5	3	5	10
16.	Rhinoplasty	2	2	3	3	05

*Should be undertaken at centers where expertise and scope of practice is available

University National Medical Residency program Pakistan

PLASTIC SURGERY:

Core training rotation objective:

The OMFS resident should be trained in such a manner so that he/she should be able to diagnose and accordingly manage all the plastic surgery competencies identified & mentioned as under in this rotation program, with the sole objective of providing better patient care & improving the standard of oral & maxillofacial surgical expertise and Practice in Pakistan.

The OMFS resident on 02-month rotation to plastic surgery is expected to participate in basic plastic surgery academics and clinical activities. This should include participation in academic seminars, journal clubs, M & M meetings, CPCs, outpatient clinics, ward management and operation theatre. The candidate is expected to serve as a team member & not as an independent trainee on the on-call team for the A&E department for plastic surgery & related emergencies.

These competencies are given below:

S. No.	Procedure	Competency Levels				Total
		First Month		Second Month		
		level	Minimum cases	level	Minimum cases	
1.	Estimation of the extent and depth in acute burns and resuscitation of the acute burn patient	2	10	3	10	20
2.	Immediate management of complex facial soft tissue injury	2	8	3	7	15
3.	Excision of Head n Neck Soft Tissue lesion with direct closure	2	5	3	5	10
4.	Excision of lesion/scar and local flap closure	3	5	4	5	10
5.	Management of skin tumors esp. of the face	2	5	3	5	10
6.	Skin grafting techniques	3	15	4	5	20
7.	Intradermal steroid injection	3	5	4	5	10

University National Medical Residency program Pakistan

8.	Cleft Lip and secondary deformities	2	5	3	5	10
9.	Cleft Palate and secondary deformities	2	3	3	2	05
10.	Craniofacial clefts*	2	4	3	1	05
11.	Microtia	2	4	3	1	05
12.	Local flaps in head & neck reconstruction	2	5	5	5	10
13.	Regional flaps in head & neck reconstruction	2	5	3	5	10
14.	Distant flaps in head & neck reconstruction	2	3	3	2	05
15.	Free vascularized flaps in head & neck reconstruction*	2	4	3	1	05
16.	Facial palsy management	3	2	3	2	05
17.	Rhytidectomy & forehead lift*	2	3	3	2	05
18.	Blepharoplasty*	2	5	3	5	10
19.	Correction of prominent ears	2	3	3	2	05
20.	Rhinoplasty	2	3	3	2	05
21.	Post burn contracture management	2	3	3	2	10

*Should be undertaken at centers where expertise and scope of such practice is available

NEUROSURGERY:

Core training rotation objective:

The OMFS resident should be trained in such a manner so that he/she is able to diagnose and accordingly manage all the neurosurgical related, surgical competencies identified & mentioned as under in this rotation program, with the sole objective of providing better patient care & improving the standard of oral & maxillofacial surgical expertise and practice in Pakistan. The OMFS resident on 02-month rotation to neurosurgery is expected to participate in basic neurosurgery academic and clinical activities. This should include participation in academic seminars, journal clubs, M & M meetings, CPCs, outpatient clinics, ward management and operation theatre. The candidate is expected to serve as a team

University National Medical Residency program Pakistan

member & not as an independent trainee on the on-call team for the A&E department for neurosurgical emergencies. These competencies are given below:

S. No.	Procedure	Competency Levels				Total
		First Month		Second Month		
1.	General neurological history & Clinical Examination	2	10	3	10	20
2.	Basic management of head and spinal injury patient, including interpretation of neurological signs	2	10	3	10	20
3.	Cervical collar application decision & management	2	10	3	15	15
4.	Basic CT & MRI Brain interpretation	2	5	3	5	10
5.	Bur hole Procedures	2	15	3	5	20
6.	Craniotomy for extra/subdural hematomas	2	6	3	4	10
7.	Trigeminal Nerve rhizotomies Cases	2	3	3	2	05
8.	Management of depressed skull fractures	2	5	3	5	10
9.	Orbital tumors*	2	3	2	2	05
10.	Access surgery for skull base tumors*	2	7	3	3	10
11.	Cranioplasty*	2	7	3	3	10
*Should be undertaken at centers where expertise and scope of such practice is available						

PROSTHODONTICS:

Core training rotation objective:

The OMFS resident should be trained in such a manner so that he/she is able to diagnose and accordingly manage the patient requiring maxillofacial and prosthodontic issues faced by respective patients and achieve competencies identified & mentioned as below in this rotation program, with the sole objective of providing better patient care & improving the standard of oral & maxillofacial surgical expertise and practice in Pakistan. The OMFS resident on rotation to prosthodontics is expected to participate in basic prosthodontic academic and clinical activities. This should include participation in seminars, journal clubs, treatment planning sessions, chairside & laboratory-based management of the prosthodontic, with a prime focus on patients requiring maxillofacial prosthodontics rehabilitation. These competencies are given below:

University National Medical Residency program Pakistan

S. No.	Procedure	Competency Levels				Total
		First Month		Second Month		
1.	Alveolar ridge mapping and prosthodontic evaluation of the edentulous patient	2	5	3	5	10
2.	Planning Implant prosthodontics	3	5	4	5	10
3.	Planning Implant prosthodontics in aesthetic zone	3	5	4	5	10
4.	Chairside & Laboratory procedures for Obturators used for maxillofacial defects	2	5	3	5	10
5.	Making Shielding plates for OMFS radiotherapy Protection	2	5	3	5	05
6.	Impression taking techniques of the Orthognathic & maxillofacial Cases	2	5	3	5	10
7.	Prosthodontic role in TMJ disease	2	5	3	5	10
8.	Dental & Prosthetic rehabilitation of posttraumatic facial deformity patient	2	2	3	3	05

ORTHODONTICS:

Core training rotation objective:

The OMFS resident should be trained in such a manner so that he/she is able to diagnose and accordingly manage the basic dentofacial orthodontics patient. The competencies achieved & identified are mentioned as under in this rotation program, with the sole objective of providing better patient care & improving the standard of oral & maxillofacial surgical expertise and practice in Pakistan. The OMFS resident on rotation to orthodontics is expected to participate in basic orthodontic academic and clinical activities. This should include participation in seminars, journal clubs, treatment planning sessions, chairside & laboratory-based management of the orthodontic patient, with the prime focus on evaluation, preparation, and management of the orthognathic cases. These competencies are given below:

University National Medical Residency program Pakistan

S. No.	Procedure	Competency Levels				Total
		First Month		Second Month		
1.	Clinical assessment of the dentofacial deformity patient	2	2	3	2	15
2.	Tracing of common radiographs, including OPG, lateral and anteroposterior cephalometry	3	10	3	10	20
3.	Orthodontic planning for impacted teeth	2	5	3	5	10
4.	Treatment planning for skeletal problems in the growing patient and functional appliances	2	2	3	3	05
5.	Treatment planning for skeletal problems in the adult patient	2	2	3	3	05
6.	Implants for orthodontic anchorage	3	5	4	5	10
7.	Computer prediction and analysis for orthognathic surgery	2	5	3	5	10
8.	Orthognathic Plaster Model surgery	3	3	4	2	05
9.	TMJ disease, MPD and orthodontic perspective	3	3	4	2	05
10.	Evaluation and preparation of the palatal expansion patient	2	3	3	2	05
11.	Orthodontic management in Distraction Osteogenesis	2	5	3	5	10
12.	Orthodontic role in cleft lip and palate cases	2	5	3	5	10

PERIODONTICS:

As per departmental protocol

MAXILLOFACIAL DIAGNOSTIC RADIOLOGY

As per departmental protocol

3. ASSESSMENTS

1. Continuous Internal Assessments / Workplace-Based Assessments

Workplace-based assessments (WPBAs) are used to evaluate progression through the specialty training program. The assessments aim to link teaching, learning and assessment in a structured way. The assessments will be done throughout the training program with completion of all assessment forms. It will be the responsibility of the trainee to organize the WPBAs after discussion with the supervisor.

Three types of WPBA in clinical training programs will be used.

- a) Direct observation of procedural skills (DOPS)
- b) Mini clinical evaluation exercise (Mini-CEX)
- c) Case-based discussion (CBD)

2. University Examination

There will be total of two university examinations.

Intermediate Examination:

- After completion of 24 months of training with 90% attendance during training
- Written examination (200 marks)
100 MCQ'S of single best answer type carrying 02 marks for each
- Clinical examination (TOACS)
10 observed stations (Max. 03 static)/ 10 marks each

The resident scoring a minimum of 75% marks will be considered PASS.

Final Examination:

- At the end of the program with 90% attendance during last two years of training
- Continuous internal assessments "Log Book" (100 marks)
- Written examination (300 marks)
- Paper-1 (100 MCQ'S of single best answer type carrying 02 marks for each)

University National Medical Residency program Pakistan

- Paper-2. (10 SEQ'S of single best answer type carrying 10 marks for each)
- Clinical examination (300 marks)
- One long case of 100 marks
- Four short cases of 25marks each
- TOACS 10 observed stations (02 case base discussion)
- Thesis Defense (300 marks)
- The resident scoring a minimum of 75% marks will be considered PASS

University National Medical Residency program Pakistan

Intermediate Examination

MCQ'S (100) 2 marks each

TABLE OF SPECIFICATIONS

S. No.	Contents	MCQ's (single best)
1.	Principles of OMFS/ cross infection control	5
2.	Impacted cuspid and wisdom teeth	5
3.	Management of medically compromised OMFS patients and medical emergencies	5
4.	Pre-prosthetic surgery and dental implants	10
5.	Oral & maxillofacial trauma	10
6.	Salivary gland disorders	5
7.	Oro-facial infection, , Pathology of maxillary antrum	10
8.	Jaw cyst and tumors ,(Benign)	5
9.	Maxillofacial diagnostic imaging	10
10.	Local anesthesia/ General anesthesia/ Sedation	5
11.	Orofacial medicine, Congenital anomalies and dentofacial deformities	10
12.	Temporomandibular joint disorders	5
13.	Oral oncology including precancerous lesions & conditions, Maxillofacial reconstruction	10
14.	Medico-legal and ethical issues in oral & maxillofacial surgery	5
Total		100

University National Medical Residency program Pakistan

Intermediate Examination

TOACS

10 observed stations (Max. 03 static)/ 10 marks each

TABLE OF SPECIFICATIONS

S. No.	Contents	TOACS Stations
1.	Principles of OMFS/ Cross infection control, Management of medically compromised OMFS patients and medical emergencies, Medico-legal and ethical issues in oral & maxillofacial surgery	1
2.	Impacted cuspid and wisdom teeth, Pre-prosthetic surgery and dental implants, Local Anesthesia/ General Anesthesia/ Sedation	1
3.	Oral and maxillofacial trauma	1
4.	Salivary gland disorders	1
5.	Oro-facial infection, Pathology of maxillary antrum	1
6.	Maxillofacial diagnostic imaging	1
7.	Orofacial medicine	1
8.	Temporomandibular joint disorders, Congenital anomalies and dentofacial deformities	1
9.	Jaw cyst and tumors (Benign)	1
10.	Oral oncology including precancerous lesions & conditions, Maxillofacial reconstruction	1
Total		10

University National Medical Residency program Pakistan

Final Examination

Paper-1

MCQ'S (100) 02 marks each

TABLE OF SPECIFICATIONS

S. No.	Contents	MCQ's (single best)
1.	Principles of OMFS / Cross infection Control	4
2.	Impacted cuspid and wisdom teeth	5
3.	Management of medically compromised OMFS patients and medical emergencies	3
4.	Pre-prosthetic surgery and dental implants	5
5.	Oral and Maxillofacial Trauma	10
6.	Salivary Gland Disorders	3
7.	Oro-Facial Infection	5
8.	Congenital Anomalies and Dentofacial Deformities	7
9.	Pathology of Maxillary Antrum	2
10.	Maxillofacial Diagnostic Imaging	5
11.	Local anesthesia/ General anesthesia/ Sedation	3
12.	Orofacial medicine	10
13.	Temporomandibular joint disorders	8
14.	Jaw cyst and tumors (Benign)	8
15.	Oral oncology including precancerous lesions & conditions	10
16.	Maxillofacial Reconstruction	10
17.	Medico-Legal and Ethical issues in oral Maxillofacial surgery	2
Total		100

University National Medical Residency program Pakistan

Final Examination

TOACS

10 observed stations (02 static discussion) / 10 marks each

TABLE OF SPECIFICATIONS

Sr.#	Contents	TOACS Stations
1.	Principles of OMFS/ Cross infection Control, Medico-Legal and Ethical issues in oral Maxillofacial surgery, Management of medically compromised OMFS patients and medical emergencies	1
2.	Oral and Maxillofacial Trauma	2
3.	Oro-Facial Infection, Salivary Gland Disorders, Pathology of Maxillary Antrum, Pre-prosthetic surgery and dental implants	1
4.	Orofacial Medicine, Local anesthesia/ General anesthesia/ Sedation, Impacted cuspid and wisdom teeth	1
5.	Temporomandibular joint disorders, Congenital Anomalies and Dentofacial Deformities	1
6.	Jaw cyst and Tumors (Benign), Maxillofacial Diagnostic Imaging	1
7.	Oral oncology including precancerous lesions & conditions	2
8.	Maxillofacial Reconstruction	1
Total		10

University National Medical Residency program Pakistan

4. RECOMMENDED READING MATERIAL FOR THE RESIDENTS:

To understand oral and maxillofacial surgery, it is essential to become familiar with the basic principles of medicine and surgery, oral medicine, pathology and oral radiology, and maxillofacial prosthetics. The residents should keep up to date by reading oral and maxillofacial surgery textbooks and related journals. Few of the recommended sources are listed as follows.

BOOKS:

- Peterson's Principles of Oral & Maxillofacial Surgery by Miloro
- Contemporary Oral and Maxillofacial Surgery by Ellis, Hupp
- Oral and Maxillofacial Pathology by Neville B W, Damm D
- Medical problems in Dentistry by Scully, Cawson
- Orofacial Pain. Guidelines for assessment, diagnosis & management Okeson JP
- Oral and Maxillofacial Surgery by RJ Fonseca
- Maxillofacial Surgery by Peter Ward Booth
- Oral and Maxillofacial Medicine by Scully C.
- Contemporary Implant Dentistry by Carl E. Misch
- Oral pathology by Regezi, Sciubba
- Oral and Maxillofacial Infections by Topazian and Goldberg
- Essentials of radiology and radiography by Eric Whites
- Operative oral and maxillofacial surgery by Langdon and Patel
- Oral and Maxillofacial Surgery Secrets by Omar Abu Bakar
- Washington Manual of Surgery
- Management of facial fractures by Killey and Kay
- Head and Neck Surgery by Stell and Maran
- Ethics and Law for the Dental team by Mark Brennan
- Decision making in General Dentistry (Master Dentistry Series)

University National Medical Residency program Pakistan

JOURNALS:

- Oral Surgery, Oral Medicine, Oral Pathology, Oral Radiology and Endodontics
- British Journal of Oral and Maxillofacial Surgery
- Journal of Cranio-Maxillofacial Surgery
- International Journal of Oral and Maxillofacial Surgery
- Otolaryngology Head and Neck Surgery
- Journal of Plastic, Reconstructive & Aesthetic Surgery
- Asian Journal of Oral and Maxillofacial Surgery
- Australian Dental Journal
- British Dental Journal
- American Dental Journal