

THIRD PROFESSIONAL BDS SYLLABUS & COURSES

Medicine

General Surgery

Oral Pathology + Oral Microbiology

Periodontology

Oral medicine

Clinical Assignments

General medicine wards and emergency

General surgical wards and emergency

Periodontology clinics

Oral Medicine clinics

Oral surgery, exodontia

Prosthodontics partial dentures

Pre-clinical Assignments

Pre-clinical Paedodontics

Pre-clinical Crown & Bridge

Laboratory Assignments

Histopathological slide preparation and interpretation

MEDICINE

The instruction in clinical medicine should include the etiology, pathogenesis, clinical presentation, appropriate investigations and management principles of the diseases of various systems.

It is extremely important that the oral manifestations and clinical significance of various systemic diseases must be highlighted and potential complications of medically compromised patients be appreciated by the student.

Eliciting a thorough medical history, carrying out a meticulous clinical examination, (general as well as systemic) diagnosis and treatment planning.

Application of invasive and non-invasive diagnostic modalities in medical practice

Pre-clinical

Lab or

Histopathology

Diseases of cardiovascular system

Rheumatic fever
Rheumatic heart disease
Ischemic heart disease
Differential diagnosis of acute chest pain and management principles
Cardiac failure
Cardio-pulmonary resuscitation: Basic life support (BLS) and advanced life support (ALS)
Pericarditis
Valvular heart disease
Infective endocarditis
Congenital heart disease
Pericarditis
Hypertension

Diseases of respiratory system

Chronic bronchitis
Bronchial asthma
Emphysema
Bronchiectasis
Pneumonias
Tuberculosis
Respiratory distress syndrome of the newborn (hyaline membrane disease) and adult
Pulmonary edema
Pulmonary thrombo-embolism
Acute respiratory obstruction
Respiratory failure
Cystic fibrosis
Bronchial carcinoma
Cyanosis
Dyspnea
Finger clubbing

Hematological Diseases

Anemias (all types)
Polycythemia
Leukemias
Myeloproliferative and myelodysplastic disorders
Thrombocytopenias
Hemophilia, von Willebrand disease, Christmas disease and other disorders of blood clotting system

Infectious Diseases

Common bacterial infections
Common parasitic infections
Common protozoal infections
Common fungal infections
Common viral infections

Diseases of nervous system

Meningitis

Infections of CNS

Headache

Migraine

Cluster headaches

Facial pain with special emphasis on trigeminal neuralgia, vagoglossopharyngeal neuralgia, multiple sclerosis and other central/peripheral causes

Facial paralysis central and peripheral causes with special emphasis on differentiation of upper motor neuron and lower motor neuron lesions and Bell's palsy

Cerebrovascular accident

Hemiplegia and paraplegia

Epilepsy

Parkinson's disease

Dementia, Alzheimer's disease

Cerebral edema

Diseases of gastrointestinal system

Esophagitis

Peptic ulcer

Duodenal ulcer

Coeliac disease

Inflammatory bowel disease

Chronic diarrhea

Cancers of GIT

Diseases of liver

Acute and chronic infections, viral hepatitis A,B,C,

Liver cirrhosis

Alcoholic liver disease

Liver Abscess

Hepatic encephalopathy

Hepatocellular carcinoma

Jaundice: hereditary and acquired causes

Liver function tests: rationale and interpretation

Diseases of kidneys

Nephrotic syndrome

Infections of the kidney and urinary tract system

Acute and chronic renal failure

Uremia

Kidney stones

Renal dialysis and transplants

Diseases of

Acute and chronic

Acute and chronic

Liver

Liver

Liver

Diseases of Endocrine System.

- Disorders related to the hyper and hypo secretions of the pituitary gland
- Disorders related to the hyper and hypo secretions of the thyroid gland
- Disorders related to the hyper and hypo secretions of the parathyroid glands
- Disorders related to the hyper and hypo secretions of the adrenal cortex
- Disorders related to the hyper and hypo secretions of the adrenal medulla
- Disorders related to the hyper and hypo secretions of Islets of Langerhans

Clinical Assignments

General medicine OPD, wards and emergency

Recommended Books

- Text book of Medicine Davidson
- Clinical Medicine P.J.Kumar
- Synopsis of medicine in dentistry by Lawrence Cohen.

GENERAL SURGERY

Surgical Principles

- Eliciting a thorough medical history, carrying out a meticulous clinical examination, diagnosis and treatment planning.
- Application of invasive and non-invasive diagnostic modalities in surgical practice
- Cross infection control and sterilization
- Surgical instruments and their use
- Sutures and suturing techniques
- Protocols of operation theatre, ward work, patient clerking and out-patient clinics
- Introduction to basic surgical skills

Healing and Repair of Wounds

- Mechanism of healing and repair in both hard and soft tissues.
- Complications of wound healing and their management

Surgical Infections

- Clinical presentation, diagnosis and treatment of bacterial, viral, fungal, and protozoal infections including hospital infections.
- Cellulitis, spread of infection through fascial planes, Ludwig's angina, intracranial complications of dental infection
- Osteomyelitis.
- Chronic sinuses and fistulae of the oral & maxillofacial region.

Trauma Care

- Principles of pre-hospital, emergency and definitive care of trauma victims with special emphasis on the management of airway, bleeding and circulation and CPR protocols.
- Principles of management of head, chest and abdominal injuries
- Principles of nutrition and fluid intake in trauma victims
- Presentation, diagnosis and treatment of maxillofacial trauma

Hemorrhage, Shock, Burns

Causes, presentation, diagnosis and management of primary and secondary hemorrhage; vasovagal, cardiogenic, septic, anaphylactic, neurogenic hypoglycemic, and hypovolemic shock

Presentation and management of burns victims.

Oral & Maxillofacial Pathology

Epidemiology, classification, clinical presentation, diagnosis and treatment of benign and malignant tumors of oral cavity including epithelial, soft tissue, and bone tumors. Special emphasis should be laid down on the oral squamous cell carcinoma, basal cell carcinoma, melanoma and osteosarcoma

Epidemiology, classification, clinical presentation, diagnosis and treatment of odontogenic tumors and cysts with special emphasis on ameloblastoma, Pindborg tumor, dentigerous cyst, radicular-cyst and keratocyst.

Maxillary sinusitis, carcinoma and other pathological lesions of maxillary sinus
Sialadenitis, sialolithiasis, sialosis, Sjogren's syndrome, Mickulicz syndrome.

Cystic lesions like mucocele, ranula of salivary glands.

Epidemiology, classification, clinical presentation, diagnosis and treatment of benign and malignant tumors of salivary glands.

Neck pathology

Cervical lymphadenopathy, thyroid gland, thyroglossal cyst, parathyroid gland, branchial cyst, dermoid cyst, sternomastoid tumor, cervical rib, carotid body tumor, carotid aneurysm, thymic swellings, cystic hygroma, pharyngeal pouch, spinal abscess etc

Carcinomata of the esophagus and larynx

Developmental Pathology

Developmental defects of oral and para-oral structure with special emphasis on the cleft lip and palate.

Clinical Assignments

General surgical OPD, wards and emergency

Recommended Books

Text book of general surgery by Bailey & Love

An Introduction to the Symptoms & Signs of Surgical Disease Norman Browse

Clinical Methods in General Surgery by S. DAS

Clinical Methods in General Surgery by Hamilton & Bailey

Text book of Surgery by Ijaz Ahsan

ORAL PATHOLOGY / MICROBIOLOGY

Development Distribution of Oral and Para Oral Structures:

- Tongue** Macroglossia: microglossia, ankylosed tongue, benign, fissured tongue, benign migratory glossitis, black hairy tongue, lingual thyroid and lingual varicosities.
- Lips :** Commisural and para median lip pits, fissures, double lip, cleft lips.
- Oral mucosa:** Fordyce's granules, genodermatosis, leukoedema.
- Gingiva:** Fibromatosis gingivae.
- Salivary glands:** Aplasia, atresia of ducts, ectopic glands, developmental cysts.
- Jaws:** Condylar hyperplasia, coronoid hyperplasia, condylar duct, hemihyperplasia, progressive hemifacial atrophy, Crouzon's syndrome, Apert's syndrome, mandibulofacial dysostosis.
- Development cysts:** Including palatal cyst of newborn, nasolabial cyst, globulomaxillary cyst, nasopalatine duct cyst, median palatal cyst, epidermoid and dermoid cysts, thyroglossal tract cyst, branchial cyst, lymphoepithelial cyst.
- Teeth:** Development disturbances in size of teeth micro and macrodontia; disturbance in shapes of teeth including gemination, fusion, concrescence, dilaceration, Talon's cusps, dens in dente, taurodontism etc. Distribution in number of teeth like, anodontia, hypodontia, supernumery teeth, and predeciduous teeth. Distribution in structure of teeth like amelogenesis imperfecta, enamel hypoplasia due to systemic disturbance, enamel hypocalcification and enamel hypomaturation, dentinogenesis imprefecta, dentinal dysplasias, odontodysplasia; ankylosis of teeth.

Epithelial Pathology:

Benign tumors of epithelial origin including papilloma, kerto acanthoma, Heck's diseases, verruciform xanthoma, etc.

Pigmented cellular nevus and oral melanotic macules, melanocanthoma, acquired melanocytic nevus etc.

Premaligant lesions / conditions of the oral cavity like leukoplakia, erythroplakia, oral submucous fibrosis, nicotinic stomatitis, actinic keratosis, actinic cheilosis, tobacco pouch keratosis, Plummer Vinson syndrome etc. Epithelial malignancy including oral squamous cell carcinoma, verrucous carcinoma, spindle cell carcinoma, basal cell carcinoma, melanoma, etc.

Soft Tissue Pathology:

Fibroma, giant cell fibroma, epulis fissuratum, inflammatory papillary hyperplasia, fibrous histiocytoma, fibromatosis, pyogenic granuloma etc,

Lipoma, hemangiomas, Rendu-Osler-Weber syndrome, Struge-Weber disease, angiofibromas and lymphangiomas,

Traumatic neuroma, neurofibroma, neurofibromatosis, schwannoma and multiple endocrine neoplasia syndromes

Soft tissue sarcomas including fibrosarcoma, liposarcoma, malignant fibrous histiocytoma, neurofibrosarcoma, Kaposi's sarcoma, angiosarcoma, leiomyosarcoma, rhabdomyosarcoma, synovial sarcoma, alveolar soft part sarcoma, metastatic soft tissue sarcomas.

Bone Pathology:

Osteogenesis imperfecta, osteopetrosis, cleidocranial dysplasia, focal osteoporotic bone marrow defect, idiopathic osteosclerosis, massive osteolysis, Paget's disease of bone Langerhans cell disease,
 Giant cell lesions,
 Fibro osseous lesions
 Granulomatous lesion
 Osteoma, Gardner syndrome, osteoid osteoma, osteoblastoma, chondroma, chondromyxoid fibroma, bony hemangioma, osteosarcoma, fibrosarcoma, chondrosarcoma, Ewing's sarcoma, metastatic tumors of the jaws.

Salivary Gland Pathology:

Sialadenitis

Sialolithiasis

Sialosis

Sialorrhea

Xerostomia

Benign lymphoepithelial lesion

Sjogren's syndrome

Cystic lesions like mucocele, ranula and sialocyst of salivary glands

WHO classification of salivary gland tumors

Benign tumors of salivary glands-epidemiology and distribution in oral cavity like pleomorphic adenoma, papillary cyst adenoma lymphatosum, adenoma-oxophilic and canalicular, oncocytoma, malignant tumors of salivary glands, epidemiology, distribution in oral cavity, adenoid cystic carcinoma, mucoepidermoid tumor and carcinoma, adenocarcinoma, carcinoma ex pleomorphic adenoma.

Cysts of Odontogenic Origin:

Pathogenesis of jaw cysts, clinical signs and symptoms, diagnostic modalities e.g. radiography, aspiration, biochemistry, culture & sensitivity, biopsy etc

WHO classification,

Dentigerous cyst,

Eruption cyst

Gingival cyst,

Primordial cyst / odontogenic keratocyst, Gorlin Coltz syndrome

Radicular cyst

Lateral periodontal cyst

Calcifying odontogenic cyst

Carcinoma in odontogenic cysts

Diagnosis

Tumors of Odontogenic Origin:

WHO classification,

Ameloblastoma, squamous odontogenic tumor, calcifying epithelial odontogenic tumor (Pindborg tumor), ameloblastic fibroma, ameloblastic fibro-dentinoma & ameloblastic fibroodontoma, onto-ameloblastoma, adenomatoid odontogenic tumor, calcifying odontogenic cyst, odontomes, odontogenic fibroma, myxoma, cementoblastoma; malignant ameloblastoma, primary intra-osseous carcinoma malignant variants of other odontogenic epithelial tumors, malignant changes in odontogenic cysts;

Diagnosis

Pathology

Radiology

WHO

Infections:

Diseases of bacterial origin including, impetigo, erysipelas, streptococcal infections, scarlet fever, diphtheria, syphilis, tuberculosis, gonorrhoea, leprosy, noma, actinomycosis, cat scratch disease, sinusitis phenomenon of dental caries,

Diseases of viral origin including, herpes group, enteroviruses rubella, rubella, mumps and AIDS.,

Diseases of fungal and protozoal origin including, candidiasis, histoplasmosis, mucormycosis, cryptococcosis, aspergillosis, balstomycosis, toxoplasmosis, zygomycosis.

Dental Caries

Disease phenomenon of dental caries,

Etiological factors, taking part in production of dental caries

Pathogenesis of disease at the microscopic level

Classification of clinical types of carious lesions depending on the site of involvement and rate of spread, various surfaces involved in various sites, Clinical features of smooth surface, pit and fissure and cervical caries, detail rampant caries, slow progressive caries, arrested caries and secondary caries, Various methods used in diagnosis

Histopathology of enamel caries, mode of spread and shape of lesions in different sites, different zones of lesions, pathway of entry into enamel or initiation of caries, evaluate difference between smooth surface, pit and fissure caries

Advantages of early detection and prevention

Maintenance of oral hygiene

Role of fluoride and fluoridation,

Role of fissure sealants

Diseases of Pulp and Periapical Tissues:

Disease of pulp, etiology, classification, clinical features, pulp tests

Histopathological features, non-vitality of teeth, regressive changes,

Squeal of untreated pulpitis

Pulpal calcifications, secondary dentin formations, root resorption

Periapical pathosis-etiology, acute periapical periodontitis, acute and chronic dentoalveolar abscess, periapical granuloma, radicular cyst, recurrent abscess.

Spread of Oral Infection:

Cellulitis

Spread of infection through fascial planes

Ludwig's angina

Intracranial complication of dental infection

Osteomyelitis

Physical and Chemical Injuries of the Oral Cavity:

Physical injuries of oral tissues-classification, injuries to teeth, injuries to bone, injuries to soft tissue, cheek biting lip biting, tongue biting etc, burns, emphysema

Effects of radiation and chemotherapy on oral and paraoral structures

Systemic metallic intoxication

Smokers melanosis

Oral trauma from sexual practice, anesthesia necrosis, exfoliative cheilitis, submucosal hemorrhage

Amalgam tattoo and other types of oral pigmentations.

Allergies and Immunological Diseases:

Recurrent aphthous stomatitis, Behcet's syndrome,
Sarcoidosis
Allergic reaction to systemic drug
Allergic contact stomatitis from artificial cinnamon flavoring, contact reactions to dental
amalgam
Angioedema

Healing of Oral Wounds:

Healing of gingivectomy wound
Extraction wound
Fractures and bone healing
Factors affecting healing

Diseases of Blood and Blood Forming Organs:

Lymphoid hyperplasia
Anemia
Polycythemia
Hemophilia
Leukemia
Thrombocytopenia
Lymphomas
Multiple myeloma
Plasmacytoma

Oral Aspects of Metabolic Disease:

Mucopolysaccharidoses
Amyloidosis
Jaundice
Hepatitis
Vitamin deficiency
Iron deficiency
Disorders of pituitary, thyroid, parathyroid, adrenal, Islets of Langerhans and other glands
Disorders of calcium and phosphate metabolism, uremic stomatitis.
Disorders of other organ systems and their manifestations in the oral cavity

Lymphoid

Diseases of Skin:

Ectodermal dysplasia
White sponge nevus
Hereditary benign intraepithelial dyskeratosis
Pachyonychia, congenita,
Dyskeratosis congenita
Xeroderma pigmentosum
Incontinentia pigmenti
Darier's disease
Peutz Jegher's syndrome
Hereditary hemorrhagic telangiectasia
Ehler's Danlos syndrome
Tuberous sclerosis
Epidermolysis, bullosa

Pemphigus
Bullous, pemphigoid
Benign mucous membrane pemphigoid
Linear IgA disease
Dermatitis herpetiformis
Erythema multiforme
Lichen planus
Reiter's syndrome
Graft versus host disease
Psoriasis
Systemic sclerosis
Acanthosis nigricans
Lupus erythematosus

Facial and Neuromuscular Pathology:

Facial palsy including Bell's Palsy
Facial pain trigeminal neuralgia, glossopharyngeal neuralgia, atypical facial pain, neuralgia inducing cavitation osteonecrosis, cluster headache, migraine, temporal arteritis, myasthenia gravis, motor neuron disease, glossopyrosis, dysguesia
Frey's syndrome
Diseases of the temporomandibular joint: Osteoarthritis, rheumatoid arthritis, temporomandibular joint dysfunction syndrome, ankylosis of the temporomandibular joint

Forensic Odontology:

Record management
Identification
Bite pattern evidence,
Child abuse.

Recommended Books

Oral microbiology and immunology by Russel and M.G Newman.
Oral Pathology by Regazy and Caranza
Essentials of oral pathology by R.A Cawson
Oral pathology by Soames & Southam
Atlas of oral Pathology by Cawson & Scully
Colour atlas of clinical oral pathology by Nulle / Damm / While / Waldron
Maxillofacial pathology, J. Sapp, Lewis Eversole, George Wysocki
Oral pathology, J W'Everson
Oral diseases C Scully S Porter
A color of oral pathology C Scully John W Eveson.

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PERIODONTOLOGY

Historical background of Periodontology
 The normal Periodontium
 Classification and epidemiology of periodontal disease
 Etiology of periodontal disease
 Periodontal microbiology
 Host response and host-bacterial interactions in periodontal disease
 Dental calculus
 Systemic diseases and the Periodontium
 Gingival inflammation
 Acute gingival infections
 Gingival abscess
 AIDS and the periodontium
 Gingival enlargements
 Desquamative gingivitis
 Periodontitis: classification, presentation and diagnosis
 Periodontal abscess
 Periodontal pockets
 Bone loss and patterns of bone loss
 Diagnosis and treatment planning:
 • Clinical diagnosis
 • Radiographic diagnosis
 • Advanced diagnostic aids
 Treatment planning and determining prognosis of periodontal disease
 Plaque control
 Periodontal instrumentation
 Principles of oral prophylaxis, root planning and curettage
 Antimicrobials and other chemotherapeutic agents in periodontal therapy
 Surgical periodontal therapy
 Surgical curettage
 Gingivectomy
 Flap surgery
 Osseous surgery
 Supportive periodontal therapy
 Periodontal-restorative inter-relationships

Clinical Assignments:

Clinics in Periodontology

Recommended Books

Clinical Periodontology (Glickman) Caranza & Newman
Outline of Periodontics, Manson & Eley (4th Edition) Publisher: Wright
Guide to Periodontics, Jenkins, Allan & Collins Publisher: Heinemann
 Color atlas of clinical and surgical periodontology by Straphang & Waite.
 A text book of clinical periodontology by Jan Lindhe
 Fundamentals of periodontics by Thomas G. Wilson Kenneths Korman.
 Periodontology and Periodontics, Modern Theory and Practice by Sigurd P. Ramford Major
 M. Ash.

ORAL MEDICINE

Normal oral mucous membrane

Abnormal oral mucous membrane

Immunity

Methods of Investigation

Principles of treatment

Oral cancer and precancer

Oral pigmentation

Oral ulceration

Vesiculobullous disease

Autoimmune diseases

Orofacial Allergy

Immunosuppression

Bone diseases

Temporomandibular joint disease

Facial paralysis

Facial pain

Salivary gland disease

Systemic Disease and their Oral Manifestations:

Disorders of cardiovascular system

Disorders of respiratory system

Disorders of blood

Infectious diseases

Diseases of the skin

Disorders of nutrition

Disorders of gastrointestinal system

Disorders of liver

Disorders of kidneys

Endocrine disturbances

Oral reactions to drug therapy

Clinical Assignments:

Diagnostic clinics in OPD

Recommended Books

A Clinical Guide to Oral Medicine by P J Lamey & M A O Lewis

Oral Medicine by Tyldesley

Medical problems in dentistry by Scully & Cawson