

Fifth Year

1. Oral & Maxillofacial Surgery

AIM OF THE COURSE

“To produce a graduate who is competent in performing extraction of teeth under both local and general anaesthesia, prevent and manage related complications, acquire a reasonable knowledge and understanding of the various diseases, injuries, infections occurring in the Oral & Maxillofacial region and offer solutions to such of those common conditions and has an exposure in to the in-patient management of maxillofacial problems.”

OBJECTIVES:

a) Knowledge & Understanding : At the end of the course and the clinical training the graduate is expected to

1. Able to apply the knowledge gained in the related medical subjects like pathology, microbiology and general medicine in the management of patients with oral surgical problem.
2. Able to diagnose, manage and treat (Understand the principles of treatment of) patients with oral surgical problems.
3. Knowledge of range of surgical treatments
4. Ability to decide the requirement of a patient to have oral surgical specialist opinion or treatment.
5. Understand of the principles of in patient management.
6. Understanding of the management of major oral surgical procedures and principles involved in patient management.
7. Should know ethical issues and communication ability.

b) Skills :

1. A graduate should have acquired the skill to examine any patient with an oral surgical problem in an orderly manner. Be able to understand requisition of various clinical and laboratory investigations and in this capable of formulating differential diagnosis.

2. Should be competent in the extraction of teeth under both local and general anaesthesia.
3. Should be able to carry out certain minor oral surgical procedures under L.A. like frenectomy , alveolar procedures & biopsy etc.
4. Ability to assess, prevent care and manage various complications during and after surgery.
5. Able to provide primary care and manage medical emergencies in the dental office.
6. Understanding of the management of major oral surgical problems and principles involved in inpatient management.

Detailed Syllabus :

1. Introduction, definition , scope , aims and objectives
2. Dignosis in oral surgery :
 - a. History taking
 - b. Clinical examination © Investigations.
3. Principles of infection control and cross-infection control with particular reference to HIV/AIDS and Hepatitis.
4. Principles of Oral Surgery –
 - Asepsis: Definition, measures to prevent introduction of infection during surgery.
 - a. Biologic considerations for maxillary and mandibular impression including anatomy landmark and their interpretation.
 1. Preparation of the patient
 2. Measures to be taken by operator
 3. Sterilisation of instruments - various methods of sterilisation etc.
 4. Surgery set up.

b. Painless Surgery:

1. Pre- anaesthetic considerations & Pre-medication: purpose, drugs used
2. Anaesthetic considerations - a) Local b) Local with IV sedations
3. Use of general anaesthetic

c. Access:

Intra-oral: Mucoperiosteal flaps, principles, commonly used intra oral incisions.

Bone Removal: Methods of bone removal.

Use of Burs: Advantages & precautions

Extra-oral: Skin incisions - principles, various extra-oral incision to expose facial skeleton.

- a. Submandibular & Pre auricular
- b. Incision to expose maxilla & orbit
- c. Bicoronal incision
- d. Control of haemorrhage during surgery Normal Haemostasis Local measures available to control bleeding Hypotensive anaesthesia etc.
- e. Drainage & Debridement Purpose of drainage in surgical wounds - Types of drains used

Debridement: purpose, soft tissue & bone debridement.

f. Closure of wounds

Suturing: Principles, suture material, classification, body response to various materials etc.

g. Post operative care - Post operative instructions

Physiology of cold and heat

Control of pain – analgesics

Control of infection – antibiotics

Control of swelling - anti-inflammatory drugs

Long term post operative follow up - significance.

5. Exodontia: General considerations

Ideal Extraction.

Indications for extraction of teeth

Extractions in medically compromised patients.

Methods of extraction –

a. (a) Forceps or intra-alveolar or closed method.

Principles, types of movement, force etc.

(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 exodontias

Common to both maxilla and mandible.

Post-operative complications –

Prevention and management of complications.

6. Impacted teeth: 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.

7. Pre-prosthetic Surgery:

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.

8. Diseases of the maxillary sinus

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.

9. Disorders of T.M. Joint

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.

10. Infections of the Oral cavity

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.

Ludwigs angina - definition, aetiology, clinical features, management and complications.

11. Benign cystic lesions of the jaws - 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.

12. Tumours of the Oral cavity - General considerations

Non odontogenetic benign tumours occurring in oral cavity - fibroma, papilloma, lipoma, ossifying fibroma, myxoma 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.

13. Fractures of the jaws - 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

Complications of fractures - delayed union, non-union and malunion.

14. Salivary gland diseases - 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.

15. Jaw deformities - Basic forms - Prognathism, Retrognathism and open bite.

Reasons for correction.

Outline of surgical methods carried out on mandible and maxilla.

16. Neurological disorders - Trigeminal neuralgia - definition, aetiology, clinical features and methods of management including surgical.

Facial paralysis - Aetiology, clinical features.

Nerve injuries - Classification, neurolysis etc.

17. Cleft Lip and Palate - Aetiology of the clefts, incidence, classification, role of dental surgeon in the management of cleft patients.

Outline of the closure procedures.

18. Medical Emergencies in dental practice –

Primary care of medical emergencies in dental practice particularly –

(a) Cardio vascular (b) Respiratory (c) Endocrine

(d) Anaphylactic reaction (e) Epilepsy (f) Epilepsy

19. Emergency drugs & Intra muscular I.V. Injections –

Applied anatomy, Ideal location for giving these injections, techniques etc.

20. Oral Implantology

21. Ethics

LOCAL ANAESTHESIA:

Introduction, concept of L.A., classification of local anaesthetic agents, ideal requirements, mode of action, types of local anaesthesia, complications.

Use of Vaso constrictors in local anaesthetic solution –

Advantages, contra-indications, various vaso constrictors used.

Anaesthesia of the mandible –

Pterygomandibular space - boundaries, contents etc.

Inferior Dental Nerve Block - various techniques

Complications

Mental foramen nerve block

Anaesthesia of Maxilla –

Intra - orbital nerve block.

Posterior superior alveolar nerve block

Maxillary nerve block – techniques

GENERAL ANAESTHESIA –

Concept of general anaesthesia.

Indications of general anaesthesia in dentistry.

Pre-anaesthetic 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 Medazolam.

Cardiopulmonary resuscitation

Indications, mode of action, technique etc.

Use of oxygen and emergency drugs.

Tracheostomy.

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. Killely and Kays outline of oral surgery – Part-1; Seward GR & etal
9. Essentials of safe dentistry for the medically compromised patients; Mc Carthy 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

18. Prosthodontics and Crown & Bridge

COMPLETE DENTURES

A. Applied Anatomy and Physiology.

1. Introduction
2. Biomechanics of the edentulous state.
3. Residual ridge resorption.

B. Communicating with the patient

1. Understanding the patients.

- Mental attitude.

2. Instructing the patient.

C. Diagnosis and treatment planning for patients-

1. With some teeth remaining.

2. With no teeth remaining.

a. Systemic status.

b. Local factor.

c. The geriatric patient.

- d. Diagnostic procedures.
- D. Articulators- discussion
- E. Improving the patient's denture foundation and ridge relation -an overview.
 - a. Pre-operative examination.
 - b. Initial hard tissue & soft tissue procedure.
 - c. Secondary hard & soft tissue procedure.
 - d. Implant procedure.
 - e. Congenital deformities.
 - f. Postoperative procedure.
- F. Principles of Retention, Support and Stability
- G. Impressions - detail.
 - a. Muscles of facial expression.
 - b. Biologic considerations for maxillary and mandibular impression including anatomy landmark and their interpretation.
 - c. Impression objectives.
 - d. Impression materials.
 - e. Impression techniques.
 - f. Maxillary and mandibular impression procedures.
 - i. Preliminary impressions.
 - ii. Final impressions.
 - g. Laboratory procedures involved with impression making (Beading & Boxing, and cast preparation).
- H. Record bases and occlusion rims- in detail.

- a. Materials & techniques.
 - b. Useful guidelines and ideal parameters.
 - c. Recording and transferring bases and occlusal rims.
- I. Biological consideration in jaw relation & jaw movements - craniomandibular relations.
- a. Mandibular movements.
 - b. Maxillo -mandibular relation including vertical and horizontal jaw relations.
 - c. Concept of occlusion- discuss in brief.
- J. Relating the patient to the articulator.
- a. Face bow types & uses– discuss in brief.
 - b. Face bow transfer procedure - discuss in brief.
- K. Recording maxillo mandibular relation.
- a. Vertical relations.
 - b. Centric relation records.
 - c. Eccentric relation records.
 - d. Lateral relation records.
- L. Tooth selection and arrangement.
- a. Anterior teeth.
 - b. Posterior teeth.
 - c. Esthetic and functional harmony.
- M. Relating inclination of teeth to concept of occlusion- in brief.
- a. Neurocentric concept.
 - b. Balanced occlusal concept.
- N. Trial dentures.
- O. Laboratory procedures..
- a. Wax contouring.
 - b. Investing of dentures.
 - c. Preparing of mold.
 - d. Preparing & packing acrylic resin.
 - e. Processing of dentures.

- f. Recovery of dentures.
- g. Lab remount procedures.
- h. Recovering the complete denture from the cast.
- i. Finishing and polishing the complete denture.
- j. Plaster cast for clinical denture remount procedure.

P. Denture insertion.

- a. Insertion procedures.
- b. Clinical errors.
- c. Correcting occlusal disharmony.
- d. Selective grinding procedures.

R. Treating problems with associated denture use – discuss in brief (tabulation/flow-chart form).

S. Treating abused tissues - discuss in brief.

T. Relining and rebasing of dentures- discuss in brief.

U. Immediate complete dentures construction procedure- discuss in brief.

V. The single complete denture- discuss in brief.

W. Overdentures denture- discuss in brief.

X. Dental implants in complete denture - discuss in brief.

NOTE-

It is suggested that the above mentioned topics be dealt with wherever appropriate in the following order so as to cover –

1. Definition
2. Diagnosis (of the particular situation /patient selection /treatment planning)
3. Types / Classification
4. Materials
5. Methodology – Lab /Clinical
6. Advantages & disadvantages
7. Indications, contraindications
8. Maintenance Phase
9. Oral Implantology

10. Ethics.

REMOVABLE PARTIAL DENTURES

1. Introduction

Terminologies and scope

2. Classification.

3. Examination, Diagnosis & Treatment planning & evaluation of diagnostic data.

4. Components of a removable partial denture.

Major connectors,

Minor connectors,

Rest and rest seats.

5. Components of a Removable Partial Denture.

Direct retainers,

Indirect retainers,

Tooth replacement.

6. Principles of Removable Partial Denture Design.

7. Survey and design – in brief.

- Surveyors.

- Surveying.

- Designing.

8. Mouth preparation and master cast.

9. Impression materials and procedures for removable partial dentures.

10. Preliminary jaw relation and esthetic try-in for some anterior replacement teeth.

11. Laboratory procedures for framework construction-in brief.

12. Fitting the framework - in brief.
13. Try-in of the partial denture - in brief.
14. Completion of the partial denture - in brief.
15. Inserting the Removable Partial Denture - in brief.
16. Postinsertion observations.
17. Temporary Acrylic Partial Dentures.
18. Immediate Removable Partial Denture.
19. Removable Partial Dentures opposing Complete denture.

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7. Indications, contraindications
8. Maintenance Phase

FIXED PARTIAL DENTURES

Topics To Be Covered In Detail -

Introduction

Fundamentals of occlusion – in brief.

Articulators – in brief.

Treatment planning for single tooth restorations.

Treatment planning for the replacement of missing teeth

including selection and choice of abutment teeth.

Fixed partial denture configurations.

Principles of tooth preparations.

Preparations for full veneer crowns – in detail.

Preparations for partial veneer crowns – in brief.

Provisional Restorations

Fluid Control and Soft Tissue Management

Impressions

Working Casts and Dies

Wax Patterns

Pontics and Edentulous Ridges

Esthetic Considerations

Finishing and Cementation

Topics To Be Covered In Brief -

1. Solder Joints and Other Connectors
2. All - Ceramic Restorations
3. Metal - Ceramic Restorations
4. Preparations of intracoronar restorations.
5. Preparations for extensively damaged teeth.
6. Preparations for periodontally weakened teeth
7. The Functionally Generated Path Technique
8. Investing and Casting
9. Resin - Bonded Fixed Partial Denture

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5. Methodology – Lab /Clinical

6. Advantages & disadvantages
7. Indications, contraindications
8. Maintenance Phase

RECOMMENDED BOOKS:

1. Syllabus of Complete denture by - Charles M. Heartwell Jr. and Arthur O. Rahn
2. Boucher's "Prosthodontic treatment for edentulous patients"
3. Essentials of complete denture prosthodontics by – Sheldon Winkler.
4. Maxillofacial prosthetics by – William R. Laney.
5. McCracken's Removable partial prosthodontics
6. Removable partial prosthodontics by – Ernest L. Miller and Joseph E. Grass

3. Conservative Dentistry and Endodontics

OBJECTIVES:

- A) Knowledge and understanding
- B) Skills and
- C) Attitudes.

Knowledge And Under Standing:

The graduate should acquire the following knowledge during the period of training.

- i. To diagnose and treat simple restorative work for teeth.
- ii. To gain knowledge about aesthetic restorative material and to translate the same to patients needs.
- iii. To gain the knowledge about endodontic treatment on the basis of scientific foundation.
- iv. To carry out simple endodontic treatment.
- v. To carry out simple luxation of tooth and its treatment and to provide emergency endodontic treatment.

Skills:

He should attain following skills necessary for practice of dentistry

- i. To use medium and high speed hand pieces to carry out restorative work.

- ii. Poses the skills to use and familiarise endodontic instruments and materials needed for carrying out simple endodontic treatment.
- iii. To achieve the skills to translate patients esthetic needs along with function.

H) Attitudes:

- i. Maintain a high standard of professional ethics and conduct and apply these in all aspects of professional life.
- ii. Willingness to participate in CDE programme to update the knowledge and professional skill from time to time.
- iii. To help and participate in the implementation of the national oral health policy.
- iv. He should be able to motivate the patient for proper dental treatment at the same time proper maintenance of oral hygiene should be emphasise which will help to maintain the restorative work and prevent future damage.

INTRODUCTION :

1. Definition aims objectives of Conservative Dentistry scope and future of Conservative Dentistry.
 1. Nomenclature Of Dentition: Tooth numbering systems A.D.A. Zsigmondy Palmer and F.D.I. systems.
 2. Principles Of Cavity Preparation : Steps and nomenclature of cavity preparation classification of cavities, nomenclature of floors angles of cavities.
 3. Dental Caries : Aetiology, classification clinical features, morphological features, microscopic features, clinical diagnosis and sequel of dental caries.
 4. Treatment Planning For Operative Dentistry: Detailed clinical examination , radiographic examination, tooth vitality tests, diagnosis and treatment planning, preparation of the case sheet.
 5. Gnathological Concepts Of Restoration: Physiology of occlusion, normal occlusion, Ideal occlusion, mandibular movements and occlusal analysis. Occlusal rehabilitation and restoration.
 6. Aramamentarium For Cavity Preparation: General classification of operative instruments, Hand cutting instruments design formula and sharpening of instruments. Rotary cutting instruments dental bur, mechanism of cutting, evaluation of hand piece and speed current

concepts of rotary cutting procedures. Sterilisation and maintenance of instruments. Basic instrument tray set up.

7. Control Of Operating Filed: Light source sterilisation field of operation control of moisture, rubber dam in detail, cotton rolls and anti sialogagues.
8. Amalgam Restoration : Indication contraindication, physical and mechanical properties , clinical behaviour. Cavity preparation for Class I , II, V and III. Step wise procedure for cavity preparation and restoration. Failure of amalgam restoration.
9. Pulp Protection : Liners, varnishes and bases, Zinc phosphate, zinc polycarboxylate, zinc oxide eugenol and glass inomer cements.
10. Anterior Restorations : Selection of cases, selection of material, step wise procedures for using restorations , silicate (theory only) glass inomers, composites, including sand witch restorations and bevels of the same with a note on status of the dentine bonding agents.
11. Direct Filling Gold Restorations : Types of direct filling gold indications and limitations of cohesive gold. Annealing of gold foil cavity preparation and condensation of gold foils.

I. Principles Of Cavity Preparation :

J. Face bow transfer procedure - discuss in brief.

K. Recording maxillo mandibular relation.

- a) Vertical relations.
- b) Centric relation records.
- c) Eccentric relation records.
- d) Lateral relation records.

L. Tooth selection and arrangement.

- a. Anterior teeth.
- b. Posterior teeth.
- c. Esthetic and functional harmony.

M. Relating inclination of teeth to concept of occlusion- in brief.

- a) Neurocentric concept.
- b) Balanced occlusal concept.

N. Trial dentures.

O. Laboratory procedures..

- a) Wax contouring.
- b) Investing of dentures.
- c) Preparing of mold.
- d) Preparing & packing acrylic resin.
- e) Processing of dentures.
- f) Recovery of dentures.
- g) Lab remount procedures.
- h) Recovering the complete denture from the cast.
- i) Finishing and polishing the complete denture.
- j) Plaster cast for clinical denture remount procedure.

P. Denture insertion.

- a) Insertion procedures.
- b) Clinical errors.
- c) Correcting occlusal disharmony.

- d) Treating problems with associated denture use – discuss in brief (tabulation/flow-chart form).

Q. Treating problems with associated denture use – discuss in brief (tabulation/flow-chart form).

R. Treating abused tissues - discuss in brief.

S. Relining and rebasing of dentures- discuss in brief.

T. Immediate complete dentures construction procedure- discuss in brief.

U. The single complete denture- discuss in brief.

V. Overdentures denture- discuss in brief.

W. Dental implants in complete denture - discuss in brief.

NOTE-

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2. Diagnosis (of the particular situation /patient selection /treatment planning)
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5. Methodology – Lab /Clinical
6. Advantages & disadvantages
7. Indications, contraindications
8. Maintenance Phase
9. Oral Implantology
10. Ethics.
11. Direct Filling Gold Restorations : Types of direct filling gold indications and limitations of cohesive gold. Annealing of gold foil cavity preparation and condensation of gold foils.
12. Preventive Measures In Restorative Practice

Plaque Control : Pitand fissure sealants dietary measures restorative procedure and periodontal health. Contact and contour of teeth and restorations matrices tooth separation and wedges.

13. Temporisation or Interim Restoration.
14. Pin Amalgam Restoration Indication Contra Indication : Advantages disadvantages of each types of pin methods of placement use of auto matrix. Failure of pin amalgam restoration.
15. Management Of Deep Carious Lesions Indirect And Direct Pulp Capping.
16. Non Carious Destruction's Tooth Structures Diagnosis And Clinical Management
17. Hyper Sensitive Dentine And Its Management.
18. Cast Restorations : Indications, contra indications, advantages and disadvantages and materials used for same Class II and Class I cavity preparation for inlays fabrication of wax pattern spurring inverting and casting procedures & casting defects.
19. Die Materials And Preparation Of Dies.
20. Gingival Tissue Management For Cast Restoration And Impression Procedures
21. Recent Cavity Modification Amalgam Restoration.
22. Differences Between Amalgam And Inlay Cavity Preparation With Note On All : The Types Of Bawels Used For Cast Restoration
23. Control Of Pain During Operative Procedures.
24. Treatment Planning For Operative Dentistry Detailed Clinical Examination Radiographic Examination

25. Vitality Tests, Diagnosis And Treatment Planning And Preparation Of Case Sheet.

26. Applied Dental Materials.

1. Biological Considerations. Evaluation, clinical application and adverse effects of the following materials. Dental cements, Zinc oxide eugenol cements zinc phosphate cements, polycarboxylates glass ionomer cements, silicate cement calcium hydroxides varnishes.
2. Dental amalgam, technical considerations mercury toxicity mercury hygiene.
3. Composite, Dentine bonding agents, chemical and light curing composites
4. Rubber base Imp. Materials
5. Nobel metal alloys & non noble metal alloys
6. Investment and die materials
7. Inlay casting waxes
8. Dental porcelain
9. Aesthetic Dentistry

27. Endodontics: introduction definition scope and future of endodontics

28. Clinical diagnostic methods

29. emergency endodontic procedures

30. Pulpal diseases causes, types and treatment .

31. Periapical diseases: acute periapical abscess, acute periodontal abscess phoeix abscess, chronic alveolar abscess granuloma cysts condensing osteitis, external resorption.

32. Vital pulp therapy: indirect and direct pulp capping pulpotomy different types and medicaments used.

33. Apexogenesis and apexification or problems of open apex.

34. Rationale of endodontic treatment case selection indication and contraindications for root canal treatments.

35. Principles of root canal treatment mouth preparation root canal instruments, hand instruments, power driven instruments, standardisation color coding principle of using endodontic instruments. Sterilisation of root canal instruments and materials rubber dam application.

36. Anatomy of the pulp cavity: root canals apical foramen. Anomalies of pulp cavities access cavity preparation of anterior and premolar teeth.

37. Preparation of root canal space . Determination of working length, cleaning and shaping of root canals, irrigating solution chemical aids to instrumentation.
38. Disinfection of root canal space intracanal medicaments, poly antibiotic paste gross mans paste, mummifying agents. Out line of root canal treatment, bacteriological examinations, culture methods.
39. Problems during cleaning and shaping of root canal spaces. Perforation and its management. Broken instruments and its management, management of single and double curved root canals.
40. Methods of cleaning and shaping like step back crown down and conventional methods.
41. Obturation of the root canal system. Requirements of an ideal root canal filling material obturation methods using gutta percha healing after endodontic treatment. Failures in endodontics.
42. Root canal sealers. Ideal properties classification. Manipulation of root canal sealers.
43. Post endodontic restoration fabrication and components of post core preparation.
44. Smear layer and its importance in endodontics and conservative treatment.
45. Discoloured teeth and its management. Bleaching agents, vital and non vital bleaching methods.
46. Traumatized teeth classification of fractured teeth. Management of fractured tooth and root. Luxated teeth and its management.
47. Endodontic surgeries indication contraindications, pre operative preparation. Pre medication surgical instruments and techniques apicectomy, retrograde filling, post operative sequale terphination hemisection, radiscetomy techniques of tooth reimplantation (both intentional and accidental) endodontic implants.
48. Root resorption.
49. Emergency endodontic procedures.
50. Lasers in conservative endodontics (introduction only) practice management
51. Professional association dentist act 1948 and its amendment 1993.
52. Duties towards the govt. Like payments of professional tax, income tax.
53. Financial management of practice
54. Dental material and basic equipment management
55. Ethics

3. Public Health Dentistry

GOAL :

To prevent and control oral diseases and promote oral health through organized community efforts

KNOWLEDGE :

At the conclusion of the course the student shall have a knowledge of the basis of public health, preventive dentistry, public health problems in India, Nutrition, Environment and their role in health, basics of dental statistics, epidemiological methods, National oral health policy with emphasis on oral health policy.

SKILL AND ATTITUDE:

At the conclusion of the course the students shall have require at the skill of identifying health problems affecting the society, conducting health surveys, conducting health education classes and deciding health strategies. Students should develop a positive attitude towards the problems of the society and must take responsibilities in providing health.

Communication abilities: At the conclusions of the course the student should be able to communicate the needs of the community efficiently, inform the society of all the recent methodologies in preventing oral disease

SYLLABUS:

Introduction to Dentistry: Definition of Dentistry, History of dentistry, Scope, aims and objectives of Dentistry.

Public Health:

- i. Health & Disease: - Concepts, Philosophy, Definition and Characteristics
- ii. Public Health: - Definition & Concepts, History of public health
- iii. General Epidemiology: - Definition, objectives, methods
- iv. Environmental Health: - Concepts, principles, protection, sources, purification environmental sanitation of water disposal of waste sanitation, then role in mass disorder
- v. Health Education: - Definition, concepts, principles, methods, and health education aids

- vi. Public Health Administration: - Priority, establishment, manpower, private practice management, hospital management.
- vii. Ethics and Jurisprudence: Professional liabilities, negligence, malpractice, consents, evidence, contracts, and methods of identification in forensic dentistry.
- viii. Nutrition in oral diseases
- ix. Behavioral science: Definition of sociology, anthropology and psychology and their in dental practice and community.
- x. Health care delivery system: Center and state, oral health policy, primary health care, national programmes, health organizations.

Dental Public Health:

1. Definition and difference between community and clinical health.
2. Epidemiology of dental diseases-dental caries, periodontal diseases, malocclusion, dental fluorosis and oral cancer.
3. Survey procedures: Planning, implementation and evaluation, WHO oral health survey methods 1997, indices for dental diseases.
4. Delivery of dental care: Dental auxiliaries, operational and non-operational, incremental and comprehensive health care, school dental health.
5. Payments of dental care: Methods of payments and dental insurance, government plans
6. Preventive Dentistry- definition, Levels, role of individual , community and profession, fluorides in dentistry, plaque control programmes.

Research Methodology and Dental Statistics

1. Health Information: - Basic knowledge of Computers, MS Office, Window 2000, Statistical Programmes
2. Research Methodology: -Definition, types of research, designing a written protocol
3. Bio-Statistics: - Introduction, collection of data, presentation of data, Measures of Central tendency, measures of dispersion, Tests of significance, Sampling and sampling techniques-types, errors, bias, blind trails and calibration.

Practice Management

1. Place and locality

2. Premises & layout
3. Selection of equipments
4. Maintenance of records/accounts/audit.

Dentist Act 1948 with amendment.

1. Dental Council of India and State Dental Councils
2. Composition and responsibilities.
3. Indian Dental Association
4. Head Office, State, local and branches.

PRACTICALS/CLINICALS/FIELD PROGEAMME IN COMMUNITY DENTISTRY:

These exercises designed to help the student in IV year students:

1. Understand the community aspects of dentistry
2. To take up leadership role in solving community oral health programme

EXERCISES:

- a. Collection of statistical data (demographic) on population in India, birth rates, morbidity and mortality, literacy, per capita income
- b. Incidence and prevalence of common oral diseases like dental caries, periodontal disease, oral cancer, fluorosis at national and international levels
- c. Preparation of oral health education material posters, models, slides, lectures, play acting skits etc.
- d. Oral health status assessment of the community using indices and WHO basic oral health survey methods
- e. Exploring and planning setting of private dental clinics in rural, semi urban and urban locations, availment of finances for dental practices-preparing project report.
- f. Visit to primary health center-to acquaint with activities and primary health care delivery
- g. Visit to water purification plant/public health laboratory/ center for treatment of western and sewage water
- h. Visit to schools-to assess the oral health status of school children, emergency treatment and health education including possible preventive care at school (tooth brushing technique demonstration and oral rinse programme etc.)

- i. Visit to institution for the care of handicapped, physically, mentally, or medically compromised patients
- j. Preventive dentistry: in the department application of pit and fissure sealants, fluoride gel application procedure, A. R. T., Comprehensive health for 5 pts at least 2 patients

The colleges are encouraged to involve in the N.S.S. programme for college students for carrying out social work in rural areas

SUGGESTED INTERNSHIP PROGRAMME IN COMMUNITY DENTISTRY:

I. AT THE COLLEGE:

Students are posted to the department to get training in dental practice management.

- a) Total oral health care approach- in order to prepare the new graduates in their approach to diagnosis, treatment planning, cost of treatment, prevention of treatment on schedule, recall maintenance of records etc. at least 10 patients (both children and adults of all types posting for at least one month).
- b) The practice of chair side preventive dentistry including oral health education

II. AT THE COMMUNITY ORAL HEALTH CARE CENTRE (ADOPTED BY THE DENTAL COLLEGE IN RURAL AREAS)

Graduates posted for at least on month to familiarize in:

- a) Survey methods, analysis and presentation of oral health assessment of school children and community independently using WHO basic oral health survey methods.
- b) Participation in rural oral health education programmes
- c) Stay in the village to understand the problems and life in rural areas

III. DESIRABLE: Learning use of computers-at least basic programme.

EXAMINATION PATTERN :

- I. Index: Case History
- II. Health Education

- 1. Make one - Audio visual aid
- 2. Make a health talk

III. Practical work

1. Pit and fissure sealant
2. Topical fluoride application

BOOKS RECOMMENDED & REFERENCE:

1. Dentistry Dental Practice and Community by David F. Striffler and Brain A. Burt, Edn. –1983, W. B. Saunders Company
2. Principles of Dental Public Health by James Morse Dunning, IVth Edition, 1986, Harward University Press.
3. Dental Public Health and Community Dentistry Ed by Anthony Jong Publication by The C. V. Mosby Company 1981
4. Community Oral Health-A system approach by Patricia P. Cormier and Joyce I. Levy published by Appleton-Century-Crofts/ New York, 1981
5. Community Dentistry-A problem oriented approach by P. C. Dental Hand book series Vol.8 by Stephen L. Silverman and Ames F. Tryon, Series editor-Alvin F. Gardner, PSG
6. Publishing company Inc. Littleton Massachuseltts, 1980.
7. Dental Public Health- An Introduction to Community Dentistry. Edition by Geoffrey L. Slack and Brain Burt, Published by John Wrigth and sons Bristol, 1980
8. Oral Health Surveys- Basic Methods, 4th edition, 1997, published by W. H. O. Geneva available at the regional office New Delhi.
9. Preventive Medicine and Hygiene-By Maxcy and Rosenau, published by Appleton Century Crofts, 1986.
10. Preventive Dentistry-by J. O. Forrest published by John Wright and sons Bristoli, 1980.
11. Preventive Dentistry by Murray, 1997.
12. Text Book of Preventive and Social Medicine by Park and park, 14th edition.
13. Community Dentistry by Dr. Soben Peter.
14. Introduction to Bio-statistics by B. K. Mahajan
15. Research methodology and Bio-statistics by
16. Introduction to Statistical Methods by Grewal

