

PACIFIC DENTAL COLLEGE AND HOSPITAL, DEBARI UDAIPUR

DEPT OF CONSERVATIVE DENTISTRY & ENDODONTICS

BDS CURRICULUM

1. CONSERVATIVE DENTISTRY AND ENDODONTICS

OBJECTIVES:

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

A). Knowledge and understanding:

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 patient's 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) Possesses the skills to use and familiarize endodontic instruments and materials needed for carrying out simple endodontic treatment.
- iii) To achieve the skills to translate patients esthetic needs along with function.

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 program 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 emphasized which will help to maintain the restorative work and prevent future damage.

INTRODUCTION:

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 :
Etiology, 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. Armamentarium 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. Sterilization and maintenance of instruments. Basic instrument tray set up.
7. Control of Operating Filed:

Light source sterilization field of operation control of moisture, rubber dam in detail, cotton rolls and anti-sialagogues.

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 :

Linings, varnishes and bases, Zinc phosphate, zinc polycarboxylate, zinc oxide eugenol and glass ionomer cements.

10. Anterior Restorations :

Selection of cases, selection of material, step wise procedures for using restorations, silicate (theory only) glass ionomers, composites, including sandwich 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.

12. Preventive Measures In Restorative Practice :

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

13. Temporization 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 Bevels 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 phoenix 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, standardization color coding principle of using endodontic instruments. Sterilization 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 intra canal medicaments, poly antibiotic paste ross mans paste, mummifying agents. Outline of root canal treatment, bacteriological examinations, and 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, preoperative preparation. Pre medication surgical instruments and techniques apicectomy, retrograde filling, postoperative sequelae terphination hemisection, radicectomy 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

2. PRE CLINICAL CONSERVATIVE DENTISTRY LABORATORY EXERCISES

1. Identification and study of hand cutting instruments chisel, gingival margin trimmers, excavators and hatchet.
2. Identification and use of rotary cutting instruments in contra angle hand pieces burs (Micromotor)

3. Preparation class I and extended class I and class II and MOD's and class V amounting to 10 exercises in plaster models.
4. 10 exercises in mounted extracted teeth of following class I, 4 in number class I extended cavities 2, class II 4 in number and Class V 2 in number. Cavity preparation base application matrix and wedge placement restoration with amalgam.
5. Exercises on phantom head models which includes cavity preparation base and varnish application matrix and wedge placement followed by amalgam restoration.

Class I	5
Class I with extension	2
Class II	10
Class II Mods	2
Class V and III for glass ionomers	4
Class V for amalgam	2

6. Polishing of above restorations.
7. Demonstration of Class III and Class V cavity preparation. For composites on extracted tooth completing the restoration.
8. Polishing and finishing of the restoration of composites.
9. Identification and manipulation of varnish bases like Zinc Phosphate, Poly carboxylate, Glass Ionomers, Zinc Oxide, Eugenol cements.
10. Identification and manipulation of various matrices, tooth separators and materials like composites and modified glass ionomer cements.
11. Cast Restoration
 1. Preparation of Class II inlay cavity
 2. Fabrication of wax pattern
 3. Sprue for inner attachment investing
 4. Investing of wax pattern
 5. Finishing and cementing of class II inlay in extracted tooth.

12. Endodontics

1. Identification of basic endodontic instruments
2. Coronal access cavity preparation on extracted. Upper central incisors
3. Determination of working length.
4. Biomechanical preparation of root canal space of central incisor
5. Obturation of root canal spaces. Absence of coronal access cavity.
6. Closure of access cavity

1. **For interns**

To facilitate reinforcement of learning and achievement of basic skills, the interns shall perform at least the following procedures independently or under the guidance of supervisors:

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| 1. | Restoration of extensively mutilated teeth | 5 Cases |
| 2. | Inlay and onlay preparations | 1 Case |
| 3. | Use of tooth coloured restorative materials | 4 Cases |
| 4. | Treatment of discoloured vital and non-vital teeth | 1 Case |
| 5. | Management of dento alveolar fracture | 1 Case |
| 6. | Management of pulp less, single-rooted teeth without periapical lesion. | 4 Cases |
| 7. | Management of acute dento alveolar Infections | 2 Cases |
| 8. | Management of pulp less, single-rooted teeth with periapical lesion. | 1 Case |
| 9. | Non-surgical management of traumatised teeth during formative period. | |

Teaching hours 2nd year

Subject	Lecture Hours	Practical Hours	Clinical Hours	Total Hours
Pre-Clinical Conservative Dentistry	25	200		225

Teaching hours 3 year

Subject	Lecture Hours	Practical Hours	Clinical Hours	Total Hours
Conservative Dentistry & Endodontics.	30		70	100

Teaching hours Final year

Subject	Lecture Hours	Practical Hours	Clinical Hours	Total Hours
Conservative Dentistry & Endodontics.	30		90	120