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8.1.10 COURSE SPECIFIC OUTCOME

ORAL MEDICINE AND RADIOLOGY

UNDERGRADUATE STUDENT

GOALS: The dental graduates during training in the institutions should acquire adequate knowledge, skills and reasonable attitudes which are required for carrying out all activities appropriate to general dental practice involving prevention, diagnosis and treatment of anomalies and diseases of the teeth, mouth, jaws and associated tissues. The graduate also should understand the concept of community oral health education and be able to participate in the rural health care delivery programmes existing in the country.

OBJECTIVES: The objectives are dealt under three headings a) Knowledge and understanding and (b) Skills (c) Attitudes.

a) Knowledge and understanding

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

1. Adequate knowledge of the scientific foundations on which dentistry is based and good understanding of various relevant scientific methods, principles of biological functions; ability to evaluate and analyse scientifically various established facts and data.
2. Adequate knowledge of the development structure and function of the teeth, mouth and jaws and associated tissues both in health and disease and their relationship and effect on general state of health and also bearing on physical and social well-being of the patient.
3. Adequate knowledge of clinical disciplines and methods which provide a coherent picture of anomalies, lesions and diseases of the teeth, mouth and jaws and preventive diagnostic and therapeutic aspects of dentistry.
4. Adequate clinical experience required for general dental practice.
5. Adequate knowledge of the constitution, biological function and behavior of persons in health and sickness as well as the influence of the natural and social environment on the state of health in so far as it affect dentistry.

(B) SKILLS:

A graduate is able to demonstrate the following skills necessary for practice of dentistry.

1. Able to diagnose and manage various common dental problems encountered in general dental practice keeping in mind the expectations and the right of the society to receive the best possible treatment available wherever possible.
2. Acquire the skill to prevent and manage complications if encountered while carrying out various surgical and other procedures.

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3. Possess skill to carry out certain investigative procedures and ability to interpret laboratory findings.
4. Promote oral health and help prevent oral diseases where possible.
5. Competent in the control of pain and anxiety among the patients during dental treatment.

(C) ATTITUDES:

A graduate develops during the training period the following attitudes.

1. Willing to apply the current knowledge of dentistry in the best interest of the patients and the community.
2. Maintain a high standard of professional ethics and conduct and apply these in all aspects of professional life.
3. Seek to improve awareness and provide possible solutions for oral health problems and needs throughout the community.
4. Willingness to participate in the CPED (Continuing Program for Dental Education) Programs to update the knowledge and professional skill from time to time.
5. To help and participate in the implementation of the national oral health policy.
6.

POST GRADUATE STUDENT

GOALS: The dental post graduates during training in the institutions should acquire adequate knowledge, skills and reasonable attitudes which are required for carrying out all activities appropriate to diagnosis and treatment of anomalies and diseases of the teeth, mouth, jaws and associated tissues.

At the end of 3 years of training the candidate should be able to

Knowledge: Theoretical, Clinical and Practical knowledge of all mucosal lesions, Diagnostic procedures pertaining to them and latest information of imaging modules.

1. Should have the adequate knowledge about common laboratory investigations and interpretation of their results
2. Should have adequate knowledge about medical complications that can arise while treating systemically compromised patients and take prior precautions/consent from the concerned medical specialist.
3. Have adequate knowledge about radiation health hazards, Radiation safety and protection.
4. Gain adequate knowledge of various extraoral radiographic procedures, TMJ radiography and Sialography.
5. Should be familiar with jurisprudence, ethics and understand the significance of dental records with respect to law.

Skills and Attitude: Three important skills need to be imparted

1. Diagnostic skills in recognition of oral lesions and their management
2. Research skills in handling scientific problems pertaining to oral treatment

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3. Clinical and didactic skills in encouraging younger doctors to attain learning objectives

Others

4. Able to identify precancerous and cancerous lesions of the oral cavity and refer to the concerned speciality for their management
5. Be aware of the importance of intra and extra oral radiographs in forensic identification and age estimation.
6. Competent to take Intraoral and extraoral radiographs and interpret the radiographic findings.
7. Be aware of the importance of intra-oral and extraoral radiographs in forensic identification and age estimation.

Attitude

Positive mental attitude and persistence of continued learning need to be inculcated.

PUBLIC HEALTH DENTISTRY

Goals

To prevent oral diseases and promote oral health.

Objective:

The students should be able to be trained at the end of final year

Knowledge:

1. At the end of the year student should have a knowledge of the basis of public health, public health problems, preventive dentistry and public health problems in India.
2. Able to perform oral health survey
3. Plan and executive National oral health policy with emphasis on oral health policy.
4. Able to identify the nutrition, environment and their role in health
5. To able to know basic knowledge of dental statistics.

Attitude:

1. The student should be able to practice of chair side to record case history and clinical examination diagnosis of all clinical procedures. Prevention of treatment on schedule recall and maintance of records.
2. Able to prepare oral health education material posters, models, lectures, play acting skits.
3. Visit to primary health centre to acquaint with activities and primary health care delivery
4. Able to conduct survey and use appropriate methods for oral health education.

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5. Taking up leadership role in solving community oral health programme.
6. Visit to school to assess the oral health status of school children, emergency treatment and health education including possible preventive care at school.
7. The student should be able to communicate the needs of the community efficiently and inform the society of all the recent methodologies in preventing oral disease.

ORAL AND MAXILLOFACIAL SURGERY

AIMS:

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:

The training program in Oral and Maxillofacial Surgery is structured to achieve the followingobjectives-

- Knowledge
- Skills
- Attitude

Knowledge

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 andgeneral 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 oralsurgical 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 the principles of in-patient management.
6. Understanding of the management of major oral surgical procedures and principles involved inpatient management.
7. Should know ethical issues and communication ability.

Skills:

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1. A graduate should have acquired the skill to examine any patient with an oral surgical problem inan orderly manner. Be able to understand requisition of various clinical and laboratory investigations and is 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 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 ininpatient management.

Attitude:

- Develop attitude to adopt ethical principles in all aspect of surgical practice, professional honesty and integrity are to be fostered. Surgical care is to be delivered irrespective of the social status, caste, creed or religion of the patient.
- Willing to share the knowledge and clinical experience with professional colleagues.
- Willing to adopt new techniques of surgical management developed from time to timebased on scientific research which are in the best interest of the patient
- Respect patient right and privileges, including patients right to information and right toseek a second opinion.
- Develop attitude to seek opinion from an allied medical and dental specialists as andwhen required.

PROGRAM-WISE LEARNING OUTCOMES
Department of Prosthodontics and Crown & Bridge

AIMS

To train the dental graduates so as to ensure higher level of competence in both general and specialty areas of Prosthodontics and prepare candidates with teaching, research and clinical abilities including prevention and after care in Prosthodontics – removable dental prosthodontics, fixed dental prosthodontics (Crown &Bridge), implantology, maxillofacial prosthodontics and esthetic dentistry.

OBJECTIVES OF THE COURSE:

1. Training program for the dental graduates in Prosthetic dentistry– removable dental prosthodontics, fixed dental prosthodontics (Crown & Bridge),

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implantology, maxillofacial prosthodontics and esthetic dentistry and Crown & Bridge including Implantology is structured to achieve knowledge and skill in theoretical and clinical laboratory, attitude, communicative skills and ability to perform research with a good understanding of social, cultural, educational and environmental background of the society.

2. To have adequate acquired knowledge and understanding of applied basic and systemic medical sciences, both in general and in particularly of head and neck region.
3. The postgraduates should be able to provide Prosthodontic therapy for patients with competence and working knowledge with understanding of applied medical, behavioral and clinical science, that are beyond the treatment skills of the general BDS graduates and MDS graduates of other specialties,
4. To demonstrate evaluative and judgment skills in making appropriate decisions regarding prevention, treatment, after care and referrals to deliver comprehensive care to patients.

KNOWLEDGE:

The candidate should possess knowledge of applied basic and systemic medical sciences.

1. On human anatomy, embryology, histology, applied in general and particularly to head and neck, Physiology & Biochemistry, Pathology Microbiology & virology; health and diseases of various systems of the body (systemic) principles in surgery and medicine, pharmacology, nutrition, behavioral science, age changes, genetics, Immunology, Congenital defects & syndromes and Anthropology, Bioengineering, Bio-medical & Biological Principles
2. The student shall acquire knowledge of various Dental Materials used in the specialty and be able to provide appropriate indication, understand the manipulation characteristics, compare with other materials available, be adept with recent advancements of the same.
3. Students shall acquire knowledge and practice of history taking, Diagnosis, treatment planning, prognosis, record maintenance of oral, craniofacial and systemic region.
4. Ability for comprehensive rehabilitation concept with pre prosthetic treatment plan including surgical re-evaluation and prosthodontic treatment planning, impressions, jaw relations, utility of face bows, articulators, selection and positioning of teeth, teeth 43 arrangement for retention, stability, esthetics, phonation, psychological comfort, fit and insertion.
5. Instructions for patients in after care and preventive Prosthodontics and management of failed restorations shall be possessed by the students.
6. Understanding of all the applied aspects of achieving physical, psychological well-being of the patients for control of diseases and / or treatment related syndromes with the patient satisfaction and restoring function of Cranio mandibular system for a quality life of a patient.

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7. Ability to diagnose and plan treatment for patients requiring Prosthodontic therapy
8. Ability to read and interpret radiographs, and other investigations for the purpose of diagnosis and treatment planning.
9. The theoretical knowledge and clinical practice shall include principles involved for support, retention, stability, esthetics, phonation, mastication, occlusion, behavioral, psychological, preventive and social aspects of Prosthodontics science of Oral and Maxillofacial Prosthodontics and Implantology
10. Tooth and tooth surface restorations, Complete denture Prosthodontics, removable partial denture Prosthodontics, fixed prosthodontics and maxillofacial and Craniofacial Prosthodontics, implants and implant supported Prosthodontics, T.M.J. and occlusion, craniofacial esthetics, and biomaterials, craniofacial disorders, problems of psychogenic origin.
11. Should have knowledge of age changes, geriatric psychology, nutritional considerations and prosthodontic therapy in the aged population.
12. Should have ability to diagnose failed restoration and provide prosthodontic therapy and after care.
13. Should have essential knowledge on ethics, laws, and Jurisprudence and Forensic Odontology in Prosthodontics.
14. Should know general health conditions and emergency as related to prosthodontics treatment like allergy of various materials and first line management of aspiration of prosthesis
15. Should identify social, cultural, economic, environmental, educational and emotional determinants of the patient and consider them in planning the treatment.
16. Should identify cases, which are outside the area of his specialty / competence, refer them to appropriate specialistsand perform interdisciplinary case management.
17. To advice regarding case management involving surgical and interim treatment
18. Should be competent in specialization of team management in craniofacial prosthesis design.
19. To have adequate acquired knowledge, and understanding of applied basic, and systemic medical science knowledge in general and in particular to head and neck regions.
20. Should attend continuing education programmes, seminars and conferences related to Prosthodontics, thus updating himself/herself.
21. To teach and guide his/her team, colleagues and other students.
22. Should be able to use information technology tools and carry out research both in basic and clinical areas, with the aim of publishing his/ her work and presenting his/her work at various scientific forums.
23. Should have an essential knowledge of personal hygiene, infection control, prevention of cross infection and safe disposal of waste, keeping in view the risk of transmission of potential communicable and transmissible infections like Hepatitis and HIV.

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24. Should have an ability to plan and establish Prosthodontics clinic/hospital teaching department and practice management.
25. Should have a sound knowledge (of the applications in pharmacology, effects of drugs on oral tissues and systems of body and in medically compromised patients.

SKILLS

1. The candidate should be able to examine the patients requiring Prosthodontic therapy, investigate the patient systemically, analyze the investigation results, radiographs, diagnose the ailment, plan the treatment, communicate it with the patient and execute it.
2. To understand the prevalence and prevention of diseases of craniomandibular system related to prosthetic dentistry.
3. The candidate should be able to restore lost functions of stomatognathic system like mastication, speech, appearance and psychological comforts by understanding biological, biomedical, bioengineering principles and systemic conditions of the patients to provide quality health care in the craniofacial regions.
4. The candidate should be able to demonstrate good interpersonal, communication skills and team approach in interdisciplinary care by interacting with other specialties including medical specialty for planned team management of patients for craniofacial & oral acquired and congenital defects, temporomandibular joint syndromes, esthetics, Implant supported Prosthetics and problems of Psychogenic origins.
5. Should be able to demonstrate the clinical competence necessary to carry out appropriate treatment at higher level of knowledge, training and practice skills currently available in their specialty area with a patient centered approach.
6. Should be able to interpret various radiographs like IOPA, OPG, CBCT and CT. Should and be able to plan and modify treatment plan based on radiographic findings
7. Should be able to critically appraise articles published and understand various components of different types of articles and be able to gather the weight of evidence from the same
8. To identify target diseases and create awareness amongst the population regarding Prosthodontic therapy.
9. To perform Clinical and Laboratory procedures with a clear understanding of biomaterials, tissue conditions related to prosthesis and have required dexterity & skill for performing clinical and laboratory all procedures in fixed, removable, implant, maxillofacial, TMJ and esthetics Prosthodontics.
10. To carry out necessary adjunctive procedures to prepare the patient before prosthesis like tissue preparation and preprosthetic surgery and to prepare the patient before prosthesis / prosthetic procedures
11. To understand demographic distribution and target diseases of Cranio mandibular region related to Prosthodontics

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ATTITUDE

1. To adopt ethical principles in Prosthodontic practice, Professional honesty, credibility and integrity are to be fostered. Treatment to be delivered irrespective of social status, caste, creed or religion of patient.
2. Should be willing to share the knowledge and clinical experience with professional colleagues.
3. Should develop an attitude towards quality, excellence, non-compromising in treatment.
4. Should be able to self-evaluate, reflect and improve on their own.
5. Should pursue research in a goal to contribute significant, relevant and useful information, concept or methodology to the scientific fraternity.
6. Should be able to demonstrate evidence-based practice while handling cases
7. Should be willing to adopt new methods and techniques in prosthodontics from time to time based on scientific research, which are in patient's best interest.
8. Should respect patient's rights and privileges, including patient's right to information and right to seek second opinion

COMMUNICATIVE ABILITIES:

1. To develop communication skills, in particular and to explain treatment options available in the management.
2. To provide leadership and get the best out of his / her group in a congenial working atmosphere.
3. Should be able to communicate in simple understandable language with the patient and explain the principles of prosthodontics to the patient. He/She should be able to guide and counsel the patient with regard to various treatment modalities available.
4. To develop the ability to communicate with professional colleagues through various media like Internet, e-mails, videoconferences etc. to render the best possible treatment. Should demonstrate good explanatory and demonstrating ability as a teacher in order to facilitate learning among students

DEPARTMENT OF CONSERVATIVE DENTISTRY AND ENDODONTICS

VISION: To be globally recognized for our healthcare services, education and research.

MISSION:

To enhance and strengthen the knowledge, research, clinical care and service efforts of our students to inculcate social and moral values and to achieve global excellence.

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OBJECTIVES:

1. Provide students with a strong intellectual and technical knowledge of restorative dentistry.
2. Teach students to apply their knowledge to deliver comprehensive dental care within the framework of each patient's cultural, medical, social and dental conditions.
3. Instill the importance of aspiring to excellence and honest self assessment
4. Emphasize the importance of life-long learning for successful practice of dentistry
5. Teach students to put ethical considerations first in the practice of dentistry
6. Highlight the importance of research and its outcomes for enhanced healthcare services.

PEDIATRIC DENTISTRY

OBJECTIVE:

At the end of 3 years of training the candidate should be able to

1. Create not only a good oral health in the child but also a good citizen tomorrow.

2. Instill a positive attitude and behavior in children

3. Understand the principles of prevention and preventive dentistry right from birth to adolescence

4. Guide and counsel the parents in regards to various treatment modalities including different facets of preventive dentistry

5. Prevent and intercept developing malocclusion.

SKILLS

1. Obtain proper clinical history, methodological examination of the child patient, perform essential diagnostic procedures and interpret them, and arrive at a reasonable diagnosis and treat appropriately

2. Be competent to treat dental diseases which are occurring in child patient.

3. Manage to repair and restore the lost tooth structure to maintain harmony between both hard and soft tissues of the oral cavity.

4. Manage the disabled children effectively and efficiently, tailored to the needs of individual requirement and conditions.

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ATTITUDES

1. Develop an attitude to adopt ethical principles in all aspects of Pedodontic practice.

2. Professional honesty and integrity are to be fostered .

3. Treatment care is to be delivered irrespective of the social status, cast, creed, and religion of the

patients.

4. Willingness to share the knowledge and clinical experience with professional colleagues.

5. Willingness to adopt, after a critical assessment, new methods and techniques of Pedodontic management developed from time to time, based on scientific research, which are in the best interest of the child patient.

6. Respect child patient's rights and privileges, including child patients right to information and right to seek a second opinion.

7. Develop an attitude to seek opinion from allied medical and dental specialties, as and when required.

ORTHODONTICS AND DENTOFACIAL ORTHOPEDICS

OBJECTIVES:

The training programme in Orthodontics is to structure and achieve the following four objectives.

Knowledge:

1. The dynamic interaction of biologic processes and mechanical forces acting on the stomatognathic system during orthodontic treatment.

2. The etiology, pathophysiology, diagnosis and treatment planning of various common Orthodontic problems

3. Various treatment modalities in Orthodontics – preventive, interceptive and corrective.

4. Basic sciences relevant to the practice of Orthodontics

5. Interaction of social, cultural, economic, genetic and environmental factors and their relevance to management of oro – facial deformities

6. Factors affecting the long-range stability of orthodontic correction and their management.

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7. Personal hygiene and infection control, prevention of cross infection and safe disposal of hospital waste, keeping in view the high prevalence of Hepatitis and HIV and other highly contagious diseases.

Skills:

1. To obtain proper clinical history, methodical examination of the patient, perform essential diagnostic procedures, and interpret them and arrive at a reasonable diagnosis about the Dento-facial deformities.

2. To be competent to fabricate and manage the most appropriate appliance – intra or extra oral, removable or fixed, mechanical or functional, and active or passive – for the treatment of any orthodontic problem to be treated singly or as a part of multidisciplinary treatment of oro-facial deformities.

Attitude:

1. Develop an attitude to adopt ethical principles in all aspects of Orthodontic practice.

2. Professional honesty and integrity are to be fostered.

3. Treatment care is to be delivered irrespective of the social status, cast, creed and religion of the patients.

4. Willingness to share the knowledge and clinical experience with professional colleagues

5. Willingness to adopt, after a critical assessment, new methods and techniques of orthodontic management developed from time to time based on scientific research, which are in the best interest of the patient

6. Respect patients' rights and privileges, including patients right to information and right to seek a second opinion

7. Develop attitude to seek opinion from allied medical and dental specialists as and when required.

Communication Skills:

1. Develop adequate communication skills particularly with the patients giving them the various options available to manage a particular Dento-facial problem and to obtain a true informed consent from them for the most appropriate treatment available at that point of time.

2. Develop the ability to communicate with professional colleagues, in Orthodontics or other specialties through various media like correspondence, Internet, e-video, conference, etc. to render the best possible treatment.

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PERIODONTOLOGY
UG

GOALS AND OBJECTIVES

GOALS:

The dental graduates during training in the institutions should acquire adequate knowledge, necessary skills and reasonable attitudes which are required for carrying out all activities appropriate to general dental practice involving the prevention, diagnosis and treatment of anomalies and diseases of the teeth, mouth, jaws and associated tissues. The graduate also should understand the concept of community oral health education and be able to participate in the rural health care delivery programmes existing in the country.

OBJECTIVES: PERIODONTOLOGY

OBJECTIVES:

The student shall acquire the skill to perform dental scaling ,diagnostic tests of periodontal diseases; to use the instruments for periodontal therapy and maintenance of the same.

The student shall develop attitude to impart the preventive measures namely, the prevention of periodontal diseases and prevention of the progress of the disease. The student shall also develop an attitude to perform the treatment with full aseptic precautions; shall develop an attitude to prevent iatrogenic diseases; to conserve the tooth to the maximum possible time by maintaining periodontal health and to refer the patients who require specialist's care.

The objectives are dealt under three headings (a) Knowledge and understanding (b) skills and (c) Attitudes.

(A) KNOWLEDGE AND UNDERSTANDING:

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

1. Adequate knowledge of the scientific foundations on which dentistry is based and good understanding of various relevant scientific methods, principles of biological functions and be able to evaluate and analyse scientifically various established facts and data.
2. Adequate knowledge of the development, structure and function of the teeth, mouth and jaws and associated tissues both in health and disease and their relationship and effect on general state of health and also bearing on physical and social well being of the patient.
3. Adequate knowledge of clinical disciplines and methods which provide a coherent picture of anomalies, lesions and

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diseases of the teeth, mouth and jaws and preventive diagnostic and therapeutic aspects of dentistry.

4. Adequate clinical experience required for general dental practice.
5. Adequate knowledge of the constitution, biological function and behaviour of persons in health and sickness as well as the influence of the natural and social environment on the state of health in so far as it affect dentistry.

(B) **SKILLS**:

A graduate should be able to demonstrate the following skills necessary for practice of dentistry.

1. Able to diagnose and manage various common dental problems encountered in general dental practice keeping in mind the expectations and the right of the society to receive the best possible treatment available wherever possible.
2. Acquire the skill to prevent and manage complications if encountered while carrying out various surgical and other procedures.
3. Possess skill to carry out certain investigative procedures and ability to interpret laboratory findings.
4. Promote oral health and help prevent oral diseases where possible.
5. Competent in the control of pain and anxiety among the patients during dental treatment.

(C) **ATTITUDES**:

A graduate should develop during the training period the following attitudes.

1. Willing to apply the current knowledge of dentistry in the best interest of the patients and thecommunity.
2. Maintain a high standard of professional ethics and conduct and apply these in all aspects ofprofessional life.
3. Seek to improve awareness and provide possible solutions for oral health problems and needsthrough out the community.
4. Willingness to participate in the CPED Programmes to update the knowledge and professionalskill from time to time.
5. To help and participate in the implementation of the national oral health policy.

PG
PERIODONTOLOGY:

OBJECTIVES: The following objectives are laid out to achieve the goals of the course

A) KNOWLEDGE:

Discuss historical perspective to advancement in the subject proper and related topics. • Describe etiology, pathogenesis, diagnosis and management of common periodontal diseases with emphasis on Indian population • Familiarize with the biochemical, microbiologic and immunologic genetic aspects of periodontal

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pathology • Describe various preventive periodontal measures • Describe various treatment modalities of periodontal disease from historical aspect to currently available ones • Describe interrelationship between periodontal disease and various systemic conditions • Describe periodontal hazards due to estrogenic causes and deleterious habits and prevention of it • Identify rarities in periodontal disease and environmental/Emotional determinates in a given case • Recognize conditions that may be outside the area of his/her Speciality/ competence and refer them to an appropriate Specialist • Decide regarding non-surgical or surgical management of the case • Update the student by attending courses, conferences and seminars relevant to periodontics or by self-learning process. • Plan out/ carry out research activity both basic and clinical aspects with the aim of publishing his/her work in scientific journals • Reach to the public to motivate and educate regarding periodontal disease, its prevention and consequences if not treated • Plan out epidemiological survey to assess prevalence and incidence of early onset periodontitis and adult periodontitis in Indian population (Region wise) • Shall develop knowledge, skill in the science and practice of Oral Implantology • Shall develop teaching skill in the field of Periodontology and Oral Implantology • Principals of Surgery and Medical Emergencies. • To sensitize students about inter disciplinary approach towards the soft tissues of the oral cavity with the help of specialist from other departments.

B) SKILLS:

• Take a proper clinical history, thorough examination of intra oral, extra oral, medical history evaluation, advice essential diagnostic procedures and interpret them to come to a reasonable diagnosis • Effective motivation and education regarding periodontal disease maintenance after the treatment • Perform both non-surgical & education regarding periodontal disease, maintenance after the treatment • Perform both non-surgical and surgical procedures independently • Provide Basic Life Support Service (BLS) recognizes the need for advance life support and does the immediate need for that. • Human values, ethical practice to communication abilities 68 68 • Adopt ethical principles in all aspects of treatment modalities; Professional honesty & integrity are to be fostered. Develop Communication skills to make awareness regarding periodontal disease Apply high moral and ethical standards while carrying out human or animal research, Be humble, accept the limitations in his/her knowledge and skill, and ask for help from colleagues when needed, Respect patients rights and privileges, including patients right to information and right to seek a second opinion. • To learn the principal of lip repositioning and perio esthetics surgeries.

C) ATTITUDE:

• Develop attitude to adopt ethical principles in all aspect of surgical practice, professional honesty and integrity are to be fostered. Surgical care is to be delivered irrespective of the social status, caste, creed or religion of the patient. • Willing to share the knowledge and clinical experience with professional colleagues. • Willing to adopt new techniques of surgical management developed from time to time based on scientific research which are in the best interest of the patient • Respect patient right and privileges, including patients right to information and right to seek a second

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opinion. • Develop attitude to seek opinion from an allied medical and dental specialists as and when required.

D). Communication Skills: • Develop adequate communication skills particularly with the patients giving them the various options available to manage a particular surgical problem and obtain a true informed consent from them for the most appropriate treatment available at that point of time • Develop the ability to communicate with professional colleagues. • Develop ability to teach undergraduates.

COURSE OUTCOME DETAILS FROM DEPARTMENT OF ORAL PATHOLOGY

Objectives:

1. To train the students so as to ensure that he/she is competent in diagnosis of general and special pathology pertaining to head and neck
2. To train the students adequately in histopathological diagnosis of common oral lesions
3. To train the students in conducting oral and dental awareness program for the society at large
4. To train the students adequately in designing and conducting research projects
5. To involve students in community based programs actively

Knowledge and Skill:

1. To impart skill and knowledge to undergraduates and post graduates in the areas of surgical and clinical oral and Maxillofacial Pathology
2. To Foster research in areas of Oral and Maxillofacial Pathology to increase understanding of Oral and paraoral disease, its recognition, its treatment and its prevention
3. To provide service to community, college, university, state and national dental organization and their constituents and other health care professions.

1. HUMAN ANATOMY, EMBRYOLOGY, HISTOLOGY & MEDICAL GENETICS

A) GOAL

The students should gain the knowledge and insight into, the functional anatomy of the normal human head and neck, functional histology and an appreciation of the genetic basis of inheritance and disease, and the embryological development of clinically important structures. So that relevant anatomical & scientific foundations are laid down for the clinical years of the BDS course.

B) OBJECTIVES :

a) KNOWLEDGE & UNDERSTANDING:

At the end of the 1st year BDS course in Anatomical Sciences the undergraduate student is Expected to:

1. Know the normal disposition of the structures in the body

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while clinically examining apatient and while conducting clinical procedures.
2. Know the anatomical basis of disease and injury.
3. Know the microscopic structure of the various tissues, a pre-requisite for understanding ofthe disease processes.
4. Know the nervous system to locate the site of lesions according to the sensory and or motordeficits encountered.
5. Have an idea about the basis of abnormal development, critical stages of development, effectsof teratogens, genetic mutations and environmental hazards.
6. Know the sectional anatomy of head neck and brain to read the features in radiographs andpictures taken by modern imaging techniques.
7. Know the anatomy of cardio-pulmonary resuscitation.

b) **SKILLS**

1. To locate various structures of the body and to mark the topography of the living anatomy.
2. To identify various tissues under microscope.
3. To identify the features in radiographs and modern imaging techniques.
4. To detect various congenital abnormalities.

c) **INTEGRATION**

By emphasising on the relevant information and avoiding unwanted details, the anatomy taught integrally with other basic sciences & clinical subjects not only keeps the curiosity alive in the learner but also lays down the scientific foundation for making a better doctor, a benefit to the society.

This insight is gained in a variety of ways:

1) Lectures & small group teaching
2) Demonstrations
3) Dissection of the human cadaver
4) Study of dissected specimens
5) Osteology
6) Surface anatomy on living individual
7) Study of radiographs & other modern imaging techniques.
8) Study of Histology slides.
9) Study of embryology models
10) Audio-visual aids

Throughout the course, particular emphasis is placed on the functional correlation, clinical application& on integration with teaching in other bio dental disciplines.

D) **AN OUTLINE OF THE COURSE CONTENT:**

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1. General anatomy: Introduction of anatomical terms and brief outline of various systems ofthe body.
2. Regional anatomy of head & neck with osteology of bones of head & neck, with emphasis ontopics of dental importance.
3. General disposition of thoracic, abdominal & pelvic organs.
4. The regional anatomy of the sites of intramuscular & intra vascular injections, & lumbarpuncture.
5. General embryology & systemic embryology with respect to development of head & neck.
6. Histology of basic tissues and of the organs of gastroinstenstinal, respiratory, Endocrine,excretory systems & gonads.
7. Medical genetics.

BIOCHEMISTRY

AIMS AND SCOPE OF THE COURSE IN BIOCHEMISTRY

The major aim is to provide a sound but crisp knowledge on the biochemical basis of the life processes relevant to the human system and to dental/medical practice. The contents should be organised to build on the already existing information available to the students in the pre-university stage and reorienting. A mere rehash should be avoided.

The chemistry portion should strive towards providing information on the functional groups, hydrophobic and hydrophilic moieties and weak valence forces that organise macromolecules. Details on structure need not be emphasised.

Discussion on metabolic processes should put emphasis on the overall change, interdependence and molecular turnover. While details of the steps may be given, the student should not be expected to memorise them. An introduction to biochemical genetics and molecular biology is a must but details should be avoided. The exposure to antivitamins, antimetabolites and enzyme inhibitors at this stage, will provide a basis for the future study of medical subjects. An overview of metabolic regulation is to be taught by covering hormonal action, second messengers and regulation of enzyme activities. Medical aspects of biochemistry should avoid describing innumerable functional tests, most of which are not in vogue. Cataloguing genetic disorders under each head of metabolism is unnecessary. A few examples which correlate genotype change to functional changes should be adequate.

At the end of the course the student would be able to acquire a useful core of information, which can be retained for a long time. Typical

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acid tests can be used to determine what is to be taught or what is to be learnt. A few examples are given below.

1. Need not know the structure of cholesterol. Should know why it cannot be carried free inplasma.
2. Mutarotation should not be taught. Student should know why amylase will not hydrolysecellulose.
3. Need not know the details of alpha - helix and beta - pleats in proteins. Should know why haemoglobin is globular and keratin is fibrous.
4. Need not know mechanism of oxidative phosphorylation. Should know more than 90 % of ATP is formed by this process.
5. Need not know details of the conversion of pepsinogen to pepsin. Should know hydrochloric acid cannot break a peptide bond at room temperature.
6. Need not remember the steps of glycogenesis. Should know that excess intake of carbohydrate will not increase glycogen level in liver or muscle.
7. Need not know about urea or cretinine clearance tests. Should know the basis of increase of urea and creatinine in blood in renal insufficiency.
8. Need not know the structure of insulin. Should know why insulin level in circulation is normal in most cases of maturity onset diabetes.
9. Need not know the structural details of ATP. Should know why about 10 g of ATP in the body at any given time meets all the energy needs.
10. Need not know the mechanism of action of prolylhydroxylase. Should know why the gum bleeds in scurvy.
11. Need not know the structure of Vitamin K. Should know the basis of internal bleeding arising due to its deficiency.
12. Need not remember the structure of HMGCoA. Should know why it does not lead to increased cholesterol synthesis in starvation.

GENERAL MEDICINE

GUIDELINES:

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Special emphasis should be given throughout on the importance of various diseases as applicable todentistry.

1. Special precautions/ contraindication of anaesthesia and various dental proced
2. Oral manifestations of systemic diseases.
3. Medical emergencies in dental practice.

A dental student should be taught in such a manner he/she is able to record the arterial pulse, blood pressure and be capable of suspecting by sight and superficial examination of the body – diseases of the heart, lungs, kidneys, blood etc. He should be capable of handling medical emergencies encountered in dental practice.

CLINICAL TRAINING:

The student must be able to take history, do general physical examination (including build, nourishment, pulse, BP, respiration, clubbing, cyanosis, jaundice, lymphadenopathy, oral cavity) and be able to examine CVS, RS and abdomen and facial nerve.

GENERAL PATHOLOGY

AIM:

At the end of the course the student should be competent to: Apply the scientific study of disease processes, which result in morphological and functional alterationsin cells, tissues and organs to the study of pathology and the practice of dentistry.

OBJECTIVES:

Enabling the student

1. To demonstrate and apply basic facts, concepts and theories in the field of Pathology.
2. To recognize and analyze pathological changes at macroscopically and microscopical levels andexplain their observations in terms of disease processes.
3. To Integrate knowledge from the basic sciences, clinical medicine and dentistry in the study ofPathology.
4. To demonstrate understanding of the capabilities and limitations of morphological Pathology in itscontribution to medicine, dentistry and biological research.
5. To demonstrate ability to consult resource materials outside lectures, laboratory and tutorialclasses.

GENERAL SURGERY

AIMS:

To acquaint the student with various diseases, which may require surgical expertise and to train the student to analyze the history and be able to do a thorough physical examination of the patient. The diseases as

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related to head and neck region are to be given due importance, at the same time other relevant surgical problems are also to be addressed. At the end of one year of study the student should have a good theoretical knowledge of various ailments, and be practically trained to differentiate benign and malignant diseases and be able to decide which patient requires further evaluation.

MICROBIOLOGY

AIM:

To introduce the students to the exciting world of microbes. To make the students aware of various branches of microbiology, importance, significance and contribution of each branch to mankind and other fields of medicine. The objectives of teaching microbiology can be achieved by various teaching techniques such as :

a) Lectures
b) Lecture Demonstrations
c) Practical exercises
d) Audio visual aids
e) Small group discussions with regular feed back from the students.

OBJECTIVES:

A. KNOWLEDGE AND UNDERSTANDING

At the end of the Microbiology course the student is expected to :

1. Understand the basics of various branches of microbiology and able to apply the knowledgerelevantly.
2. Apply the knowledge gained in related medical subjects like General Medicine and
   General Surgery and Dental subjects like Oral Pathology, Community Dentistry, Periodontics, Oral Surgery, Pedodontics, Conservative Dentistry and Oral medicine in higher classes.
3. Understand and practice various methods of Sterilisation and disinfection in dental clinics.
4. Have a sound understanding of various infectious diseases and lesions in the oral cavity.

A. SKILLS

1. Student should have acquired the skill to diagnose, differentiate various oral lesions.
2. Should be able to select, collect and transport clinical specimens to the laboratory.
3. Should be able to carry out proper aseptic procedures in the dental clinic.

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GENERAL AND DENTAL PHARMACOLOGY AND THERAPEUTICS

GOAL:

The broad goal of teaching under graduate students in pharmacology is to inculcate rational andscientific basis of therapeutics keeping in view of dental curriculum and Profession.

OBJECTIVES:

At the end of the course the student shall be able to:

i) Describe the pharmacokinetics and pharmacodynamics of essential and commonly used drugs in general and in dentistry in particular.

ii) List the indications, contraindications; interactions, and adverse reactions of commonly used drugs with reason.

iii) Tailor the use of appropriate drugs in disease with consideration to its cost, efficacy, safety for individual and mass therapy needs.

iv) Indicate special care in prescribing common and essential drugs in special medical situations such as pregnancy, lactation, old age, renal, hepatic damage and immuno compromised patients.

v) Integrate the rational drug therapy in clinical pharmacology.

vi) Indicate the principles underlying the concepts of "Essential drugs".

SKILLS:

At the end of the course the student shall be able to:

1) Prescribe drugs for common dental and medical ailments.
2) To appreciate adverse reactions and drug interactions of commonly used drugs.
3) Observe experiments designed for study of effects of drugs.
4) Critically evaluate drug formulations and be able to inte

INTEGRATION:

Practical knowledge of use of drugs in clinical practice will be acquired throughintegrated teaching with clinical departments.

HUMAN PHYSIOLOGY

A) GOAL

The broad goal of the teaching undergraduate students in Human Physiology aims at providing the student comprehensive knowledge of the normal functions of the organ systems of the body to facilitate an understanding of the physiological basis of health and disease.

OBJECTIVES

a) KNOWLEDGE

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At the end of the course, the student will be able to:

1. Explain the normal functioning of all the organ systems and their interactions for well co-ordinatedtotal body function.
2. Assess the relative contribution of each organ system towards the maintenance of the milieuinterior.
3. List the physiological principles underlying the pathogenesis and treatment of disease.

b) **SKILLS**

At the end of the course, the student shall be able to :

1. Conduct experiments designed for the study of physiological phenomena.
2. Interprete experimental and investigative data
3. Distinguish between normal and abnormal data derived as a result of tests which he/she hasperformed and observed in the laboratory.

c) **INTEGRATION**

At the end of the integrated teaching the student shall acquire an integrated knowledge of organstructure and function and its regulatory mechanisms.

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