

# **LOUISIANA STATE UNIVERSITY**

## **HEALTH SCIENCES CENTER**

## **SCHOOL OF DENTISTRY**

### **Department of Comprehensive Dentistry & Biomaterials**



## **GENERAL PRACTICE RESIDENCY**

### **Goals, Objectives & Curriculum**

Advanced Educational Program in General Dentistry

Louisiana State University School of Dentistry

Affiliations with University Medical Center, New Orleans, LA

Our Lady of the Lake Medical Center, Baton Rouge, LA and  
Southeast Louisiana Veterans Health Care System

A General Practice Residency (GPR) in Dentistry provides advanced training beyond the level of pre - doctoral education in clinical dentistry and applied basic and behavioral sciences, as well as refines those skills necessary for the generalist to provide comprehensive patient care for all population groups. It is a planned, sequential postdoctoral training program of one year in length (optional 2<sup>nd</sup>), that is specifically designed to meet the needs of graduates desirous of enhancing their skills as general practitioners. The program is a supplement to the pre - doctoral curriculum, but is not a required component of that educational sequence.

Our educational approach is based in our weekly "peer teaching" format that is commonly referred to as "teleconference". Tuesday mornings, residents in both cities report to designated "distant learning rooms" at LSUSD and LSU Baton Rouge GPR Clinic, and participate by presenting assigned topics based on the program's goals and objectives. This teleconference is typically 60 minutes long and each resident is required to produce a power point presentation for fellow residents as well as a lecture based on this summary. The residents are encouraged to participate with questions and faculty leads the discussion as well as evaluates the resident's delivery of information.

As a supplement to this approach, the program also arranges for "monthly seminars" in which residents participate in either outside continuing education seminars, LSUSD "in-house" seminars (Advanced Education Grand Rounds) or other guest lecturers provided by the program. The residents also are required to attend seminars while on "off-service" rotations and lastly, an informal "Journal Club" is arranged per faculty once a week with articles provided. We feel this approach gives the residents multiple learning styles and supports our program's goals and objectives of becoming life-long learners.

Our program is strongly rooted in hospital dentistry while striving to enhance competence and confidence in the various clinical disciplines that are integral components of general dentistry. Some specific goals of our program include:

- 1) Broaden the perspectives of the recent dental school graduate by affording the opportunity to observe, treat, practice, and experience techniques not common to the undergraduate curriculum.
- 2) Enhance the knowledge of the various physical systems in relation to diseased and traumatic conditions of the oral tissues.
- 3) Enhance the graduate's ability to make judgments (i.e., in arriving at a diagnosis, in planning treatment and in decision-making during the course of treatment).

- 4) Provide formal instruction and clinical experience in medical risk assessment to insure the provision of high quality dental care.
- 5) To aid the graduate dentists in the pursuit of career goals.

It is expected that residents successfully completing this program will be prepared to:

**1) Act as a primary care provider for individuals and groups of patients by:**

- a) providing emergency and multidisciplinary comprehensive oral health care;
- b) providing patient focused care that is coordinated by the general practitioner;
- c) directing health promotion and disease prevention activities; and
- d) using advanced dental treatment modalities and To build upon the knowledge and skill developed at the pre-doctoral level in the areas of diagnosis of diseases related to
  - i. the dentition, periodontium, and maxillofacial complex;
  - ii. development of comprehensive treatment plans in the context of the patient's total health care needs;
  - iii. The delivery of complex comprehensive dental treatment which would include, but not be limited to, preventive dentistry, periodontics, endodontics, oral surgery, TMD and restorative dentistry.

**2) Plan and provide multidisciplinary oral health care for a wide variety of patients including patients with special needs.**

- a) Those patients whose medical, physical, psychological, or social situations make it necessary to modify normal dental routines in order to provide dental treatment for that individual. These individuals include, but are not limited to, people with developmental disabilities, complex medical problems, significant physical, medical or financial limitations.
  - i. Specific medical conditions and special needs for which the resident will gain proficiency treating would include, but not be limited to
    1. patients receiving chemotherapy and/or head and neck radiation,
    2. patients with end stage renal disease that are undergoing dialysis
    3. patients that have undergone organ transplantation
    4. patients with infectious diseases such as hepatitis B or AIDS
    5. patients with Type I and II Diabetes or other endocrinopathies

6. patients with chronic obstructive pulmonary disease and other respiratory disorders
    7. patients with coagulation or other hematologic abnormalities
    8. Patients with a variety of cardiovascular diseases.
    9. Patients in counseling for psychological illness such as PTSD
  - b) This goal necessitates a deeper understanding of general medicine and the relationship between systemic disease states and proposed dental treatment.
    - i. To facilitate this clinical learning, residents will spend time on LSUHSC's Anesthesia, Emergency Medicine and Oral & Maxillofacial Services.
  - c) Also pursuant to this goal is advanced training (both didactic and clinical) in control of pain and anxiety in the dental setting utilizing minimal and moderate sedation techniques by inhalation, enteral and parenteral routes of administration
- 3) Manage the delivery of oral health care by applying concepts of patient and practice management and quality improvement that are responsive to a dynamic health care environment.**
- 4) Function effectively within the hospital and other health care environments.**
- a) hospital organization
  - b) organization, functioning, and responsibilities of the medical staff and the dental department
  - c) general hospital and operating room protocol
  - d) Interaction with other hospital departments through consultation, committee participation, etc.
  - e) Physical evaluation of patients.
  - f) Manage dental trauma and infections in the ER while on call
  - g) Function effectively within interdisciplinary health care teams.
- 5) Apply scientific principles to learning and oral health care.**
- a) Utilizing critical thinking, evidence or outcomes-based clinical decision-making, and technology-based information retrieval systems.
- 6) Utilize the values of professional ethics, lifelong learning, patient centered care, adaptability, and acceptance of cultural diversity in professional practice.**
- 7) Understand the oral health needs of communities and engage in community service.**

**Curriculum plan:**

The overall goal of the General Practice Residency program is to prepare qualified advanced general dentists to provide care to a wide variety of patients. In the context of providing such comprehensive care, specific areas of focus are listed below, followed by discipline-specific goals and objectives:

**1. Restorative Dentistry**

- a. Increasing experience in the use of new restorative- materials, gaining knowledge in the biological aspects of dental materials and increasing confidence and competence in the planning and execution of advanced operative dentistry.
- b. Understand properties, indications and placement of contemporary restorative materials
  - i. Develop efficiency in preparation and placement of restorations while maintaining high quality
  - ii. Develop skill in 4-handed dentistry and use of indirect vision.
- c. Resident proficiency is examined informally during clinical treatment, and formally during each resident's quarterly performance review.

**2. Fixed and Removable Prosthodontics**

- a. Providing an increased proficiency in diagnosis, treatment planning and provision of fixed prosthodontic care.
- b. Refining skills in dental preparations and understanding the usage of newer material and devices used in this discipline are considered as well.
- c. Increasing proficiency in diagnosis and treatment planning, in order to refine skills in the fabrication and completion of complete and partial dentures;
- d. Utilizing new impression techniques
- e. Understand the indications and limitations of pre-prosthetic surgery
- f. Understand the relationship between occlusion and dental rehabilitation with fixed and removable prosthetics.
- g. Provide an increased proficiency in diagnosis, management of temporomandibular disorders and orofacial pain; and learn when to refer to specialist
- h. Develop greater depth of understanding of occlusal disorders.
- i. Develop skill in communication with dental lab technicians.
- j. Resident proficiency is examined informally during clinical treatment, and formally during each resident's quarterly performance review

**3. Periodontal Therapy**

- a. Development of expertise in nonsurgical periodontics (e.g. scaling, root planning, etc.)
- b. Understanding the indications for periodontal surgery and gaining skills in the more routine of these techniques, including an understanding of flap techniques, osseous recontouring, gingivoplasty

- c. Resident proficiency is examined informally during clinical treatment, and formally during each resident's quarterly performance review

**4. Endodontics:**

- a. Will be competent in diagnosing, treatment planning and managing pulpal and periapical disease through either treatment of restorable and uncomplicated cases or referral to specialist when appropriate
- b. Techniques involving the use of examples of the latest technology will be taught and used during conventional endodontic treatment of single and multiple rooted teeth with uncomplicated morphology.
- c. May be exposed to diagnosis, treatment planning and management of previously endodontically treated teeth with procedural errors.
- d. Become competent in management restoring the endodontically treated tooth.
- e. Become competent in reevaluation of the endodontically treated tooth over extended periods of time.
- f. Resident proficiency is examined informally during clinical treatment, and formally during each resident's quarterly performance review.

**5. Oral surgery:**

- a. Increasing competency in
  - i. uncomplicated exodontia and complicated exodontia
  - ii. soft-tissue biopsy
  - iii. Pre-prosthetic surgery
  - iv. management of Orofacial infections and knowing when to consult the services of a specialist
- b. Resident proficiency is examined informally during clinical treatment, and formally during each resident's quarterly performance review and after month rotation with OMFS service.

**6. Anesthesia and Pain and anxiety control utilizing behavioral and pharmacological techniques.**

- a. Residents will be expected to develop skills in preoperative evaluation, assessment of the effects of pharmacologic agents, especially those agents commonly used in treating oral and systemic diseases, venipuncture technique and administration of intravenous agents, patient monitoring, airway management, anesthetic induction and intubation, administration of anesthetic agents, prevention and treatment of anesthetic emergencies, and assessment of patient recovery from anesthesia.

- b. Residents also gain experience in prescribing medications for patient under their care, and receive advanced instruction and clinical experience in the control of pain and anxiety in the conscious patient, through the use of behavioral management, local anesthesia, and conscious sedation techniques, and are knowledgeable of the indication, contraindications and potential adverse reactions of medications used.
- c. Resident proficiency is examined informally during clinical treatment, and formally during each resident's quarterly performance review and after month rotation with Anesthesia, OMFS, Emergency medicine rotation and General Dentistry clinic

## **7. Emergency Medicine and Dental Care**

- a. Goals include increasing resident familiarity with emergency medicine and dental emergency procedures which enable them to anticipate, diagnose and treat emergencies that may occur concurrently with dental procedures.
- b. Residents will be able to review a medical history to recognize factors which may predispose a patient to a systemic emergency during dental treatment, anticipate systemic emergencies by preoperative evaluation and management, diagnose the primary systemic abnormalities in a patient with a medical emergency, support a patient's respiration and/or circulation when required because of systemic collapse, evaluate and manage seizure and sudden loss of consciousness in patients, and treat allergic reactions encountered in the course of dental treatment.
- c. Residents are provided formal training in emergency procedures by becoming certified in Advanced Cardiac Life Support (ACLS). Residents also rotate through the hospital's emergency department to gain experience in managing medical emergencies.
- d. In addition, each resident shares "on-call" responsibilities for all after-hours dental emergencies for both the hospital's dental patients, as well as the dental patients of record of the LSUHSC School of Dentistry. Here, residents gain experience in the diagnosis, patient assessment, and treatment of emergency problems related to the oral cavity.
  - i. This includes the diagnosis and provision of primary care of acute infections of oral origin, acute disorders of the oral mucosa, hemorrhage of the oral cavity, and traumatic injuries to the dental and maxillofacial structures, (wound debridement, treatment of dental and alveolar fractures, and early or initial management of fractures of facial bones).
- e. Resident proficiency is examined informally during clinical treatment, and formally during each resident's quarterly performance review and after month rotation with OMFS, Emergency medicine rotation and General Dentistry clinic

**8. Implant Dentistry**

- a. Increasing experience in the use of dental implants, including treatment planning, surgery, restoration, and maintenance of the prosthesis.
- b. Resident proficiency is examined informally during clinical treatment and during each resident's quarterly performance review.

**9. Oral Pathology and Oral Medicine**

- a. Goals include increasing resident ability to recognize and differentiate pathologic structures, and to become familiar with biopsy procedures, techniques, and evaluation. Residents will be exposed to a wide variety of oral manifestations of systemic diseases, oral dermatological conditions, and acute and chronic infections and their proper treatments.

**10. Temporomandibular Disorders and Oro-facial Pain including Occlusal disorders**

- a. Increase resident's competency in diagnosing and managing disorders in the muscles of mastication, temporomandibular joint and trigeminal system and learning when appropriate referral to a specialist is warranted.
- b. Residents will be exposed to a variety of treatment modalities in clinic as well as in scheduled formal lectures with specialists in the area of Oro-facial pain.
- c. Proficiency will be examined informally during clinical treatment and during quarterly performance reviews.

**11. Physical Evaluation and Medical Risk Assessment**

- a. Development of the ability to evaluate a patient's general health status
- b. Interpret physical signs and symptoms of systemic disease.
- c. Utilization of laboratory data to assess the presence of abnormal systemic diseases
- d. To recognize those medical conditions which might prejudice the provision of routine dental care is stressed.
- e. Residents will increase their ability to obtain a patient's medical history, perform a physical evaluation, read and understand medical charts, understand basic physiology, order and interpret basic and advanced laboratory tests, radiographic data, and commonly prescribed medications through a rotation through the Emergency Room at affiliated hospitals
- f. Residents participate in a didactic course (teleconference), including integrated didactic and clinical components, designed specifically to enhance the resident's ability
  - i. To recognize significant deviations from normal health status which may affect dental management, make informed judgments on the risk of dental procedures to both hospitalized and ambulatory patients, and identify the need for medical consultation.

- ii. This course contains lectures, seminars and demonstrations covering medical history taking, including major organ systems, physical examination and interpretation of clinical laboratory studies and data.
- iii. Upon completion of this course residents are able to take, record and interpret a complete medical history, understand the indications for and interpretations of laboratory studies and other techniques used in the diagnosis of oral and systemic diseases, interpret the physical evaluation performed by a physician with an understanding of the process, terms and techniques employed, use the techniques of physical examination
  1. (i.e. inspection, palpation, percussion and auscultation), conduct a physical examination of a patient's general appearance, skin, head and neck, thorax and lungs, abdomen, lymph nodes, heart, blood pressure and pulse, and neurologic and mental status.
- iv. Residents are formally assessed by means of an outcomes exam, sections of which pertain to topics of physical evaluation covered in this seminar series, as well as review of each resident's assessment of patient "History and Physical" (H&P) examinations, performed as a precursor to patient admission for inpatient or same-day surgery general anesthesia cases.

## **12. Management of Inpatients and Same-Day Surgery Patients**

- a. Resident with experience and training in the comprehensive management of individual inpatients or same-day surgery patients from admission to discharge.
  - i. This includes training in the admission and discharge of patients, obtaining medical histories and conducting appropriate physical examinations, prescribing treatment and medications, providing dental care in the operating room, preparing the patient record, including notation of pre- and postoperative orders, progress notes, description of surgical procedures and discharge summaries.
- b. Assessment is measured by resident OR outcomes analyses, as well as by an outcomes exam, sections of which pertain to topics of inpatient and same-day surgery patients.

## **Program Evaluation and Assessment**

In order to maintain a high degree of quality control, many aspects of the General Practice Residency program will be subject to periodic review by the Program Director and Program Faculty.

## **Resident Evaluation**

General Practice Residency program residents will undergo the following evaluation procedures:

- Daily:
  - Evaluation of previous day's treatment, as well as planned treatment for the day. Areas of concern can be identified and corrected before impacting on patient care
- Quarterly: Areas to be addressed include:
  - Chart Review
  - Infection Control
  - Clinical Skills Evaluation
  - Attitude & Motivation
  - Communication Skills (written and oral)
  - Didactic Evaluation