

**NAME OF ROTATION:** Pediatric Dentistry

**COURSE DIRECTORS:** Erin M. Redwine, DDS  
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**LOCATION:** The Children's Dental Group  
560 Thornton Rd, Ste 203  
Lithia Springs, GA 30122  
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**TRAINING LEVEL:** PGY-2 or PGY-3

**LENGTH OF ROTATION:** 1 month

**COURSE DESCRIPTION:**

Pediatric Dentistry is an important component in a child's life.. With the paucity of pediatric dentists, it is imperative that residents have exposure to and competence in dentistry as they may be the only point of contact for a child. Healthy dentition is crucial and can be affected by all aspects of a child's lifestyle such as diet, nutrition, and prevention.. This rotation will provide the resident experience performing infant, children and adolescent oral/dental examinations.. The resident will be able to learn the pathology and presentation of common dental problems and determine their management plans.. In addition, the residents will learn routine dental care and prevention methods for infants, children and adolescents as well as appropriate timing of referrals.

**GOALS, OBJECTIVES AND CORE COMPETENCIES:**

**GOAL 1:** Prevention (Dental). Recognize the pediatrician's role in preventing dental disease and its complications through office-based counseling, screening and early intervention.

**Objective 1.1:** Counsel parents as part of health maintenance visits and as need arises, regarding:

1. Infant oral care
2. Prevention of early childhood caries (ECC)
3. Routine preventive oral health care (brushing, flossing, use of sealants, dental radiographs)
4. Timing of first dental visit
5. Establishment of a dental home and coordination of care with the medical home
6. "High-risk" vs. "low-risk" diet in caries prevention
7. Guidelines for fluoride therapy

8. Use of mouth guards in contact sports
9. Oral health and systemic implications of intraoral and perioral piercing
10. Oral health related to chewing tobacco
11. Special considerations in oral health care for children with mental retardation and other special needs
12. Prophylaxis for subacute bacterial endocarditis
13. Emergency dental procedures (re-implantation, tooth transport, etc.)

Discuss how to use and improve public health strategies and community services to enhance oral health education and dental services for children in your practice.

**GOAL 2:** Normal vs. Abnormal (Dental). Differentiate normal variations from pathological states in oral structures and perform pediatric office screening.

**Objective 2.1:** Explain to parents and patients the normal pattern of tooth eruption and exfoliation.

**Objective 2.2:** Describe variations in tooth development (primary and secondary).

**Objective 2.3:** Recognize normal variations in the appearance of the soft tissues of the mouth (gingiva, tongue, palate, and uvula).

**Objective 2.4:** Perform office-based dental screening during health maintenance visits and refer as indicated:

1. Obtain history for genetic risks, dietary risk, and oral habits.
2. Assess fluoride content in drinking water.
3. Examine for gum disease, enamel defects and stains, cavities, premature tooth loss, abnormalities of eruption and position.

**GOAL 3:** Undifferentiated Signs and Symptoms (Dental). Evaluate and appropriately treat or refer patients with commonly presenting dental signs and symptoms.

**Objective 3.1:** Recognize, identify differential diagnosis, provide initial treatment as indicated and manage or refer patients with the following conditions:

1. Dental pain or swelling
2. Soft tissue pain of teeth, face, jaw or ear
3. Infections of dental structures
4. Dental trauma (loosening, displacement, avulsion, fracture)
5. Dental staining (environmental, fluorosis, lead exposure, hereditary or genetic/syndromic, caries, white spots)
6. Gingival swelling (medication-associated, chronic disease conditions)

**GOAL 4:** Common Conditions Not Referred (Dental). Diagnose and manage common dental conditions that generally do not require referral.

**Objective 4.1:** Diagnose and manage the following conditions:

1. Discomfort related to teething
2. Viral stomatitis (coxsackie, herpes virus)
3. Candidiasis
4. Minor injuries of the soft tissues of the mouth
5. Ulcers (traumatic, aphthous)
6. Cheilitis

**Objective 4.2:** Diagnose developmental anomalies of the oral soft tissues that usually do not need referral.

1. Lingual frenum (ankyloglossia) and maxillary frenum
2. Geographic tongue
3. Eruption cyst or hematoma

**Objective 4.3:** Discuss with parents common oral habits and their effects on oral structures and assist in implementing a plan for behavior modification (e.g., bottle overuse/misuse, digit sucking, pacifier use, tongue thrust, lip sucking, and bruxism).

**Objective 4.4:** Discuss common oral and/or dental side effects of common pediatric medications (e.g., diphenylhydantoin, tetracyclines, immune suppressants) and their additives (e.g., sucrose).

**GOAL 5:** Conditions Generally Referred (Dental). Recognize, provide initial management and refer appropriately patients with conditions that usually require dental or oral surgery referral.

**Objective 5.1:** Identify, provide initial management of pain and/or infection, and refer as needed children with the following conditions:

1. Dental caries (including early childhood caries)
2. Dental developmental anomalies (enamel, conical or misshapen teeth)
3. Delayed eruption or eruption failure
4. Premature exfoliation
5. Missing teeth
6. Staining of teeth
7. Tooth injury secondary to trauma
8. Cellulitis and dental abscess
9. Gingivitis and periodontitis

10. Gingival hyperplasia (hereditary or secondary to medications)
11. Mucocele/ranula
12. Parulis
13. Premature tooth loss (traumatic)
14. Maxillofacial trauma
15. Malocclusion
16. Craniofacial anomalies including cleft lip or palate
17. Tobacco-induced mucosal changes
18. Black hairy tongue
19. Natal and neonatal teeth

**Objective 5.2:** Anticipate dental care needs of patients with special medical conditions, including:

1. Mental retardation or cerebral palsy
2. Autism
3. Congenital heart disease
4. Immunosuppression
5. Cardiac conditions
6. Oncologic conditions
7. Spina bifida
8. Coagulopathies

**Objective 5.3:** Recognize oral manifestations of the following systemic diseases and respond or refer appropriately:

1. Acute lymphoblastic leukemia
2. Sickle cell anemia
3. Hemophilia
4. Diabetes mellitus
5. Immunocompromised patients (HIV)
6. Neutropenia
7. Langerhans cell histiocytosis
8. Metabolic diseases

**Objective 5.4:** Identify the role and general scope of practice of a dentist, dental hygienist, and oral surgeon; recognize situations where children benefit from the skills of pediatric specialists vs. generalists; and work effectively with these professionals in the care of children.

**GOAL 6:** Dental Caries. Prevent, diagnose and manage with appropriate referral all cases of dental caries.

**Objective 6.1:** Encourage initiation of infant tooth care with first erupted tooth.

**Objective 6.2:** Counsel Initiation of soft toothbrush use at approximately 12 months.

**Objective 6.3:** Recommend first visit to the dentist by age 12 months or at earliest possible time thereafter if there are obstacles to accessing pediatric dental care.

**Objective 6.4:** Encourage families to develop good oral hygiene habits and maintain dental office visits.

**Objective 6.5:** Discuss avoidance of cariogenic feeding practices (prolonged use of bottle or "sippy" cup, for pacification and not feeding).

**Objective 6.6:** Educate families about cariogenicity of high-sucrose and other carbohydrate diets.

**Objective 6.7:** Recommend initiation of fluoride-containing dentifrice at an age when swallowing can be minimized.

**Objective 6.8:** Screen all children at every health maintenance visit for dental caries and recognize patients at risk for dental caries.

**Objective 6.9:** Diagnose white spot caries and cavities and refer for treatment.

**Objective 6.10:** Recognize and refer patients with signs and symptoms of dental abscess and anticipate the potential complications such as Ludwig angina, cavernous sinus thrombosis, orbital cellulitis, sinusitis and epidural abscess.

**GOAL 7:** Dental Trauma. Prevent, diagnose and manage with appropriate referral cases of dental trauma.

**Objective 7.1:** Counsel children and families regarding risk of dental trauma during childhood.

**Objective 7.2:** Educate families regarding emergency procedures to follow in case of avulsed tooth, e.g., why re-implantation at the earliest possible time is important and how to store and transport an avulsed permanent tooth (using specialized transport media, milk).

**Objective 7.3:** Advise children and families regarding use of protective gear during sports (helmet with face shield, mouthguard).

**Objective 7.4:** Recognize and refer types of dental injury (both acute and late findings):

1. Concussion
2. Subluxation, lateral luxation
3. Intrusion, extrusion
4. Avulsion
5. Fracture, exposed pulp

**COMPETENCIES:**

**Competency 1: Patient Care.** Provide family centered patient care that is developmentally and age appropriate, compassionate, and effective for the treatment of health problems and the promotion of health.

1.1: Gather essential and accurate information using the following clinical skills: medical interviewing, physical examination, diagnostic studies and developmental assessments.

1.2: Make informed diagnostic and therapeutic decisions based on patient information, current scientific evidence and clinical judgment, using clinical problem-solving skills, recognizing the limits of one's knowledge and expertise, gathering appropriate information and using colleagues and consultants appropriately.

1.3: Develop and carry out patient care plans, using principles of evidence-based decision-making and appropriate prioritization, and taking into account the needs, beliefs and resources of patient and family.

1.4: Effectively use common therapies within the scope of general pediatric practice, including a variety of prescription and non-prescription medications, intravenous fluids, and inhalation treatments, as well as special diets and nutritional supplements. Be familiar with therapies commonly used by subspecialists and other professionals who care for children.

1.5: Prescribe and perform competently all medical procedures considered essential for the scope of general pediatric practice; be familiar with those procedures commonly used by subspecialists and other professionals who care for children.

1.6: Counsel patients and families in a supportive manner so they can understand their illness or injury and its treatment, share in decision-making, make informed consent and participate actively in the care plan.

1.7: Provide effective preventive health care and anticipatory guidance to patients and families.

**Competency 2: Medical Knowledge.** Understand the scope of established and evolving biomedical, clinical, epidemiological and social-behavioral knowledge needed by a pediatrician; demonstrate the ability to acquire, critically interpret and apply this knowledge in patient care.

2.1: Demonstrate that you know or can efficiently access the knowledge base needed for effective patient care.

2.2: Critically evaluate current medical information and scientific evidence and modify your knowledge base accordingly.

2.3: Recognize the limits of one's knowledge and expertise by seeking information needed to answer clinical questions and using consultants and referrals appropriately. Use this process to guide life-long learning plans.

2.4: Apply current medical information and scientific evidence effectively to patient care (e.g., use an open-minded, analytical approach, sound clinical judgment, and appropriate attention to priorities).

**Competency 3: Communication Skills.** Demonstrate interpersonal and communication skills that result in information exchange and partnering with patients, their families and professional associates.

3.1: Communicate effectively in a developmentally appropriate manner with patients and families to create and sustain a therapeutic relationship across the broad range of socioeconomic and cultural backgrounds.

3.2: Communicate effectively with physicians, other health professionals, and health-related agencies to create and sustain information exchange and teamwork for patient care.

3.3: Develop effective approaches for teaching students, colleagues, other professionals and lay groups.

3.4: Work effectively as a member or leader of a health care team, and collaborate productively with professional organizations.

3.5: Serve as a consultant on pediatric matters to other physicians and health professionals.

3.6: Maintain comprehensive, timely and legible medical records.

**Competency 4: Practice-based Learning and Improvement.** Demonstrate knowledge, skills and attitudes needed for continuous self-assessment, using scientific methods and evidence to investigate, evaluate, and improve one's patient care practice.

4.1: Use scientific methods and evidence to investigate, evaluate and improve one's own patient care practice; continually strive to integrate best evidence into one's daily practice of medicine.

4.2: Systematically assess the health care needs of one's practice population, and use this information to direct population-based problem-solving, with special attention to preventable morbidity and risk.

4.3: Demonstrate willingness and capability to be a life-long learner by pursuing answers to clinical questions, using journal articles, texts, information resources, patients, colleagues and formal teaching conferences.

4.4: Be prepared to alter one's practice of medicine over time in response to new discoveries and advances in epidemiology and clinical care.

4.5: Seek and incorporate feedback and self-assessment into a plan for professional growth and practice improvement (e.g., use evaluations provided by patients, peers, superiors and subordinates to improve patient care).

**Competency 5: Professionalism.** Demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to diversity.

5.1: Demonstrate commitment, responsibility, and accountability for patient care, including continuity of care.

5.2: Be honest and use integrity in your professional duties.

5.3: Consistently use compassion and empathy in one's role as a physician.

5.4: Maintain professional boundaries in one's dealings with patients, family, staff, and professional colleagues.

5.5: Place the needs of patients and society over your own self-interest.

5.6: Demonstrate sensitivity and responsiveness to patients' and colleagues' gender, age, culture, disabilities, ethnicity, and sexual orientation.

5.7: Meet high standards of legal and ethical behavior.

5.8: Develop a healthy lifestyle, fostering behaviors that help balance personal goals and professional responsibilities. Recognize and respond to personal stress and fatigue that might interfere with professional duties.

**Competency 6: Systems-Based Practice.** Understand how to practice quality health care and advocate for patients within the context of the health care system.

6.1: Know how types of medical practice and delivery systems differ from one another with respect to how they control health care costs, allocate resources, and assure quality.

6.2: Practice cost-effective health care and resource allocation that does not compromise quality of care.

6.3: Advocate for patients in one's practice by helping them with system complexities and identifying resources to meet their needs.

6.4: Work with health care managers and providers to assess, coordinate, and improve patient care, consistently advocating for high quality.

6.5: Advocate for the promotion of health and the prevention of disease and injury in populations.

6.6: Acknowledge medical errors and develop practice systems to prevent them.

**PROCEDURES:**

None

**SCHEDULE:**

Residents will attend weekly assigned continuity clinic.. Residents are required to attend all Grand Rounds, weekly didactic lectures, resident meetings, and participate in the regularly scheduled calls.. Residents are scheduled to take one-week vacation during this rotation.. Residents will give a presentation at the end of the rotation.

**DIDACTIC SESSIONS:**

Additional didactics and cases will be determined by the preceptors.

- Anticipatory guidance for dental care for each well child check
- Revised AHA endocarditis guidelines
- Anesthesia
- Fluorosis
- Dental trauma and management
- Dental caries
- Delayed eruption

**EVALUATION:**

The preceptor and resident will complete evaluation forms on the six core competencies via electronic evaluation form.

**REFERENCES:**