

NAME OF ROTATION: Pediatric Endocrinology

COURSE DIRECTOR: Katrina Parker, MD
kparker@msm.edu

LOCATIONS:

Morehouse Medical Associates
75 Piedmont Ave, NE, Suite 600
Atlanta, GA 30303
Office: 404-756-1400

CHOA @ Hughes Spalding
35 Jesse Hill Jr, Dr, SE
2nd Floor Specialty Clinics
Atlanta, GA 30301

Dr. N. Spencer Welch
Atlanta Diabetes Associates
77 Collier Rd, NW, Suite 2080
Atlanta, GA 30309
Office: 404-355-4393

Drs. Anderson, Schultz, & Rapport
Pediatric Endocrinology Associates
1100 Lake Hearn Dr, Suite 350
Atlanta, GA 30342
Office: 404-255-0015

Quentin Van Meter, MD & Joey Low, MD
qlvanmeter@pediatricendo.com
Van Meter Endocrinology, PC
1601 Georgian Park, Suite 100
Peachtree City, Georgia 30269
Office: 678-961-2100

TRAINING LEVEL: PGY-3

LENGTH OF ROTATION: 1 month

COURSE DESCRIPTION:

The resident will become well versed in the pathophysiology, history, therapeutic options, diagnostic test, and management of a cadre of endocrine disorders. In addition to recognizing the clinical features and treating a wide range of endocrine conditions such as Diabetes Mellitus, Congenital Hypothyroidism, Diabetes Insipidus, and Familial Short Stature, residents will become well versed in the tools required in providing effective patient education. Residents will become proficient in managing endocrine conditions typically referred to an endocrine subspecialist. The resident is also expected through a series of didactic lectures, required reading material, and hands on experience to comprehend the role of prevention in decreasing the morbidity and mortality related to endocrine dysfunction in children.

GOALS, OBJECTIVES, AND CORE COMPETENCIES:

GOAL 1: Comprehend the importance of the pediatrician in assisting in preventing endocrine related morbidity and mortality.

Objective 1.1: The resident will be able to provide appropriate education and counsel to the patients and their families about expected changes noted throughout puberty.

Objective 1.2: The resident will be able to provide education pertaining to possible variations in puberty.

Objective 1.3: The resident will be able to proficiently discuss the role of vitamin D supplements in breast fed infants and specific patient populations with low vitamin D, phosphorous and calcium intake.

GOAL 2: Comprehend how to differentiate between pathological and normal states related to endocrinology.

Objective 2.1: The resident will be able to describe normal weight gain and growth patterns.

Objective 2.2: The resident will be able to explain the physiologic events in puberty and Tanner staging and differentiate normal from delayed or early puberty.

Objective 2.3: The resident will be able to differentiate premature adrenarche and thelarche from precocious puberty.

GOAL 3: Comprehend how to diagnose and manage endocrine conditions not requiring referral to the subspecialist.

Objective 3.1: The resident will be able to describe in detail the pathophysiology, presenting clinical signs and symptoms, and management techniques of the following conditions:

1. Initial abnormal newborn thyroid screen.
2. Benign premature thelarche
3. Benign premature adrenarche
4. Impact of chronic disease attributing to delayed puberty
5. Impact of anorexia nervosa attributing to delayed puberty
6. Exogenous obesity
7. Familial short stature
8. Constitutional short stature
9. Male gynecomastia
10. Infants born to mothers with gestational diabetes
11. Neonatal hypocalcaemia
12. Neonatal hypoglycemia

GOAL 4: Recognize and initiate management of endocrine disorders commonly requiring referral.

Objective 4.1: The resident will be able to identify and initiate management of endocrine disorders including the following:

1. Ambiguous genitalia
2. Hypogonadism
3. Nephrogenic and central diabetes insipidus
4. Psychogenic polydipsia
5. Congenital Adrenal hyperplasia
6. Precocious puberty
7. Diabetes mellitus
8. Endocrine causes of obesity
9. Genetic syndromes which present with endocrine abnormalities
10. Familial inheritance patterns which present as endocrine abnormalities
11. Hirsutism
12. Hypoglycemia
13. Metabolic bone disease
14. Abnormalities of phosphorous, calcium, zinc, and magnesium homeostasis
15. Polycystic ovaries
16. Excessive growth syndromes
17. Thyroid dysfunction
18. Turner syndrome

GOAL 5: Understand and explain the methods for diagnosing and managing diabetes mellitus.

Objective 5.1: The resident will be able to recognize the initial presenting symptoms, initiate management, define potential complication, and provide appropriate patient education of diabetes mellitus.

Objective 5.2: The resident will be able to correctly interpret laboratory tests for screening, diagnosing, and identifying complications in diabetes mellitus.

Objective 5.3: The resident will be able to recognize and manage DKA.

Objective 5.4: The resident will demonstrate an understanding of the appropriate use of home glucose monitoring and insulin dosage adjustment.

Objective 5.5: The resident will be able to demonstrate an understanding of the methods used to prescribe initial insulin dosage and the criteria used for adjustment including but not limited to pharmacokinetics, serum glucose records, and illness.

Objective 5.6: The resident will be able to describe the principles behind anticipatory care of children with diabetes mellitus.

Objective 5.7: The resident will be aware of the variety of community resources available to the family including but not limited to diabetes camps and the American Diabetes Association.

Objective 5.8: The resident will be able to provide the patient and family with counsel on the role of diet and exercise.

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:

Diagnostic and screening procedures. Describe the following tests or procedures, including how they work and when they should be used; competently perform those commonly used by the pediatrician in practice.

- Bone age: interpretation
- Bone densitometer
- Radiologic interpretation: CT of head
- Radiologic interpretation: MRI of head
- Radiologic interpretation: skeletal X-ray (incl. abuse)

Source. Kittredge, D., Baldwin, C. D., Bar-on, M. E., Beach, P. S., Trimm, R. F. (Eds.). (2004). APA Educational Guidelines for Pediatric Residency. Ambulatory Pediatric Association Website. Available online: www.ambpeds.org/egweb. [Accessed 07/22/2009]. Project to develop this website was funded by the Josiah Macy, Jr. Foundation 2002-2005.

SCHEDULE:

To be provided by course preceptor. Residents will attend previously scheduled continuity clinics at the assigned clinic. Residents will attend all regularly scheduled conferences including Monday conferences, journal club, and Grand Rounds.

DIDACTIC SESSIONS:

Topics will be devised by the course director.

EVALUATION:

Residents and preceptors will be evaluated on the six core competencies by electronic evaluation form.

REFERENCES:

List provided by the course director.