NARRATIVE DESCRIPTION (2014)

PEDIATRIC ENDOCRINOLOGY FELLOWSHIP PROGRAM

Introduction

The fellowship in Pediatric Endocrinology is a three year program providing comprehensive training in clinical patient management and research skills. The fellowship is sponsored by Virginia Commonwealth University (VCU) and is based at VCU Medical Center, Richmond, Virginia. The program is accredited by the ACGME (3265112091).

GOALS AND OBJECTIVES (2014)

PEDIATRIC ENDOCRINOLOGY FELLOWSHIP PROGRAM

Overall Program Goals

The fellowship in pediatric endocrinology and metabolism at Virginia Commonwealth University (VCU) is supported by two tracks.

TRACK 1: The first track (traditional) is designed to train pediatricians for competency and subspecialty board eligibility in pediatric endocrinology and metabolism. Graduates are expected to become independent, competent practitioners who are dedicated to life-long learning. They should be capable of passing the subspecialty boards in pediatric endocrinology and incorporating the scientific process in future academic careers.

TRACK 2: The second track (Master’s in Clinical and Translational Science) is an interdisciplinary program designed to launch selective fellows on a career path that will also lead to competency and subspecialty board eligibility in pediatric endocrinology and metabolism but with a more intense research focus supported by the fields of epidemiology, systems–science, and complex biological systems. Fellows in this track are expected to complete all
degree requirements for the Master’s in Clinical and Translational Science in addition to the clinical work required of a fellowship in pediatric endocrinology and metabolism.

**Program Objectives**

The program is designed to promote increasing responsibility and independence throughout the three years of training and is designed to support acquisition of the core competencies and milestones for subspecialty trainees developed by the Accreditation Council for Graduate Medical Education. The Pediatric Endocrine Subspecialty Fellow’s responsibilities are much more broad and more in depth than are those of a General Pediatric Resident.

1. The fellow will become familiar with the presentation, differential diagnosis, and management of endocrine and metabolic disorders in children. This will include but not be limited to such disorders as diabetes, abnormal growth, diseases of the thyroid, abnormalities of sexual differentiation and pubertal development, abnormalities of calcium and mineral metabolism, and others.
   a. The fellow will develop and continually sharpen his/her skills at acquiring a disease history and pedigree.
   b. The fellow will develop and continually sharpen his/her skills at diagnosis of endocrine-metabolic diseases.
   c. The fellow will develop and increase his/her understanding of normal and abnormal function of the endocrine system.

2. The fellow will become familiar with the function of the endocrine laboratory to include the quantitative analysis of hormone levels by radioimmunoassay and other techniques.
   a. The fellow will become familiar with the power and limitations of these techniques.
   b. The fellow will become familiar with limitations in the analysis of hormone levels.
c. The fellow will become familiar with the appropriate indications for these tests and with their interpretation.

3. The fellow will develop, focus and complete a research study that will lead to publication of a peer-reviewed manuscript.
   a. All fellows will acquire basic skills in biostatistics, epidemiology, research study design, data analysis, and research ethics.
   b. Fellow in the Master's track will acquire in-depth expertise in these areas.

4. The fellow will develop skills in life-long learning, critical literature review, and practice-based learning improvement

Throughout the three years of training, the fellow will achieve these objectives through mentored clinical patient care, research and didactic learning with increasing levels of responsibility.

First year program objectives are:

- To learn the essentials of history, physical examination and tests with a focus on endocrine disorders.
- To develop the ability to perform a detailed endocrine evaluation of the pediatric patient leading to appropriate differential diagnosis, diagnosis and therapy.
- To review the pathophysiology of hormonal secretion and action from prenatal through adolescent age groups.
- To follow patients throughout the hospitalization, recognize management priorities and develop a plan to achieve these goals.
- Develop a clear understanding of the ethical, fiscal and legal issues relating to patient care in the hospital setting.
- Foster responsibility for patient continuity of care.
- Increase knowledge of the complex interplay between endocrinology and other sub-
specialties

- Learn the importance of psychosocial aspects of endocrine disease with emphasis on early intervention and participation in practical interventions such as psychoendocrine counseling
- Foster adherence to principles of medical ethics with focus on endocrine disorders such as ambiguous genitalia
- Learn the use of flow charts and computer software that enhance quality of care leading to quality improvement
- Choose an area of endocrine interest to be used for a clinical / basic science research program
- Develop skills in supervising pediatric residents and students
- Develop small group teaching skills appropriate for lectures to small groups of medical students/residents (2-4 / group).

**Second Year Objectives are:**

- Continuing to develop and improve the skills acquired in first year
- To understand potential problems and limitations of endocrine testing
- To develop skills in interaction with and acquiring necessary information from primary care physicians leading to effective consultation
- Become increasingly independent in ordering appropriate laboratory tests and procedures
- Improve skills at treatment planning and communicating these to primary care physicians
- Solidify the research focus
- Write a research proposal and obtain IRB approval
• Develop skills at lecturing to larger groups (10-15)
• Prepare an abstract for national presentation
• Complete a project in quality improvement and follow through with effective programs that lead to improved patient care

Third Year Objectives are:

The overall goals for the third year are to become knowledgeable and proficient in the sub-specialty of pediatric endocrinology, to develop critical skills at reading and interpreting pertinent endocrine literature, to develop research skills that will facilitate future academic productivity, to develop interpersonal skills that are professional and conducive to effective utilization of the health care team, and to develop a style and dedication to life long learning.

The specific objectives for the third year are:

• To consolidate skills learned during the first and second years.
• Focus on the clinical / basic science research project leading to preparation and submission of a peer-reviewed manuscript
• Successfully present and defend the research to either the clinical competency committee or the Graduate School Research Committee for the Masters in Clinical and Translational Science
• Communicate effectively with referral based health care providers
• Develop effective communication with other sub-specialists
• Demonstrate the ability to prioritize work load in the academic, teaching and patient care arenas
• Formulate short and intermediate goals that define a long-range career trajectory

Faculty
Pediatric Endocrinologists

The Pediatric Endocrine faculty consists of four (4) board-certified Pediatric Endocrinologists:

1) Gary L. Francis, MD, PhD, CDE is Professor of Pediatrics, Chair of the Division of Pediatric Endocrinology and Metabolism and the Proposed Director of the Fellowship Program. He is certified in Pediatric Endocrinology by the American Board of Pediatrics Subspecialty Examination in Pediatric Endocrinology and as diabetes educator by the National Certification Board of Diabetes Educators (NCBDE).

2) Anshu Gupta, MBBS is Assistant Professor of Pediatrics at VCU. She is certified in Pediatric Endocrinology by the American Board of Pediatrics Subspecialty Examination in Pediatric Endocrinology. She is the Director of the Pediatric Endocrinology Research Program.

3) Melinda Penn, MD is Assistant Professor of Pediatrics at VCU. She is certified in Pediatric Endocrinology by the American Board of Pediatrics Subspecialty Examination in Pediatric Endocrinology. She is Chair of the Pediatric Endocrinology Clinical Competency Committee.

4) Roopa Kanakatti Shankar, MBBS, MS is Assistant Professor of Pediatrics at VCU. She is certified in Pediatric Endocrinology by the American Board of Pediatrics Subspecialty Examination in Pediatric Endocrinology.

The faculty also includes two (2) adjunct faculty:

- Edmond Wickham, MD, MPH, is Associate Professor of Medicine, Associate Professor of Pediatrics and Board Certified in Pediatrics, Internal Medicine and Internal Medicine Endocrinology.

- Trang Le, MD, is Assistant Professor of Medicine, Assistant Professor of Pediatrics and Board Certified in Pediatrics, Internal Medicine and Pediatric Endocrinology. She is currently scheduled to take the certification examination in Internal Medicine Endocrinology.

Additional members of the teaching staff include:
Rebecca Thalhimer, RN, PNP, is pediatric nurse practitioner working in concert with the pediatric endocrine team and in clinic part-time 2 days / week.

Shannon Hagan, RN, MSN, PNP is pediatric nurse practitioner working in concert with the pediatric endocrine team and in clinic part-time 3 days / week. She is also study coordinator for the NIH-Sponsored Trailnet Diabetes Program.

Mary Conkright, RN, PNP is pediatric nurse practitioner working in concert with the pediatric endocrine team and in clinic part-time 2 days / week.

Ellen Dionne, RD, CDE who serves as Nutritional Specialist and Diabetes Educator for Children with Diabetes;

Suzanne Bona, RN, CDE who serves as Diabetes Educator and case manager for children with endocrine disease; and

Melanie Bean, PhD who is Board Certified Behavioral Psychologist and assists with disease-related adjustment reactions of children or their families.

Rachel Gow, PhD who is Board Certified Behavioral Psychologist and assists with disease-related adjustment reactions of children or their families.

The pediatric endocrine fellowship is closely affiliated with the fellowship program in adult endocrinology. The Department of Endocrinology in Internal Medicine is led by Francesco Celi, MD and includes a thirteen (13) member clinical faculty, along with Certified Diabetes Educators, nutritionists, bone density technicians and a research staff. These include: Robert A. Adler, MD, Diane Biskobing, MD, John N. Clore, MD, David F. Gardner, MD, Ranjodh Gill, MD, James R. Levy, MD, Stephanie B. Mayer, MD, John E. Nestler, MD, Lori Sweeney, MD, Edmond P. Wickham, MD, Cynthia F. Yazbeck, MD, and Franklin J. Zieve, MD, PhD.
CLINICAL ASPECTS

Clinical aspects of the program are supported by the MCVH at the VCUHS which serves as primary care facility and also houses a large tertiary care referral center with a pediatric endocrine clinic, pediatric diabetes clinic, pediatric inpatient service [including a pediatric intensive care unit (PICU) and an intermediate care unit (PPCU)], a neonatal service [including a neonatal intensive care unit (NICU) and a newborn nursery], and a pediatric emergency service. Serving a referral population of approximately 2,000,000, these services provide 100,000 outpatient visits, 450 air and ground transports, 19,000 emergency room visits, 1,000 intensive care admissions and 3,500 acute care admissions for children annually. The clinical platforms include an 11 bed pediatric emergency room, a 30 bed newborn nursery, a 44 bed NICU, a 14 bed PICU, a 7 bed PPCU (step-down unit), and 48 acute care pediatric beds. The Department of Pediatrics is home to 110 faculty representing 25 sub-specialties, 87 investigator-initiated research programs and 58 clinical trials.

The fellow is provided an opportunity to select his/her clinical mentor from the pediatric endocrine faculty based on his/her special interests / expertise. This mentor will assist the fellow in career choices and selection of a research program / research mentor.

The clinical program spans eighteen (17) months and is composed of block rotations that each span 4 weeks / block. During the first year this will include one block of intense diabetes education, 1 block of outpatient clinics, one block of research, and 9 blocks of combined inpatient – consultation service. The remaining block in the first year includes 3 weeks of vacation and 1 week to attend a national meeting. The second year includes 3 blocks of combined inpatient – consultation service, one block of combined clinical pathology / thyroid, and 8 blocks for research. The remaining block in the second year includes 3 weeks of vacation and 1 week to attend a national meeting. The third year includes 10 blocks of research, one
block of adult endocrinology and one block of combined inpatient – consultation service. The remaining block in the third year includes 3 weeks of vacation and 1 week to attend a national meeting. The research program spans 19 blocks and can be devoted to basic, clinical, translational or a combination of these research venues.

The fellows and staff in the pediatric endocrine program participate in a number of didactic activities designed to focus individual learning. These include a monthly pediatric endocrine journal club, a weekly pediatric endocrine core lecture series, a weekly case conference, and a quarterly continuous quality improvement (CQI) meeting. All fellows and faculty in pediatric endocrinology also participate in a number of joint conferences with the internal medicine group throughout the entire three years of the program. These include a weekly journal club and endocrine grand rounds, along with quarterly radiology, oncology and pathology conferences where adult and pediatric cases are discussed. In addition, the fellow is exposed to all research in the Division of Pediatric Endocrinology as well as the Department of Adult Endocrinology to include PCOS, endothelial dysfunction, and bone / mineral metabolism.

Block diagrams for the Conventional Track and the Master's Track are shown below.
### FIRST YEAR BLOCK DIAGRAM TRACK 1 (CONVENTIONAL TRACK)

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Total number of clinical months ___17__________ Total number of research months __16___________

Each rotation is a 4 week block (total 13 / yr). Vacation will total 3 week / year with one additional week for conference attendance. Typical Ped Endo rotation requires rounds and total 66.5 hr/week.
### FIRST YEAR BLOCK DIAGRAM TRACK 2 (MASTER’S IN CLINICAL AND TRANSLATIONAL SCIENCE TRACK)

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**Total number of clinical months:** 14
**Total number of research months:** 19

Each rotation is a 4 week block (total 13 / yr). Vacation will total 3 week / year with one additional week for conference attendance. Typical Ped Endo rotation requires rounds and total 66.5 hr/week.
Organization

Selection of fellows is the responsibility of the Program Director in Pediatric Endocrinology. Interested candidates should apply through ERAS in the fall of the year 18 months preceding potential start (ie SEP-NOV 2013 for start JUL 2015). Selection of fellows does require interviews with all program faculty and solicitation of their input for proper “fit” of potential candidates. Regardless of the track elected by the fellow, the clinical rotations are identical for both tracks. Individuals may opt to transfer from the traditional track into the Master’s track without prejudice but individuals who resign from the Master’s track may incur financial penalty based on the support they received from the training grant which supports this track from the National Institutes of Child Health and Development, National Institutes of Health.

First Year Pediatric Endocrine Fellow:

The first year of the fellowship emphasizes clinical patient care. First year program objectives are:

• To learn the essentials of history, physical examination and tests with a focus on endocrine disorders.
• To develop the ability to perform a detailed endocrine evaluation of the pediatric patient leading to appropriate differential diagnosis, diagnosis and therapy.
• To review the pathophysiology of hormonal secretion and action from prenatal through adolescent age groups.
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• Foster adherence to principles of medical ethics with focus on endocrine disorders such as ambiguous genitalia
• Learn the use of flow charts and computer software that enhance quality of care leading to quality improvement
• Choose an area of endocrine interest to be used for a clinical / basic science research program
• Develop skills in supervising pediatric residents and students
• Develop small group teaching skills appropriate for lectures to small groups of medical students/residents (2-4 / group)

**Pediatric Endocrine Service**

The first year fellow spends nine blocks (4-week each) on the inpatient – consultation service. While on the pediatric endocrine – consultation service, the first year fellow will respond to all daytime pediatric endocrine admissions or consults (Monday – Friday). Pediatric Endocrine faculty are assigned attending status on a weekly rotation. The attending is the primary supervisory teacher and consultant for the fellow during that one week block. He/She makes rounds daily with the fellow on inpatients and consults and is available on call as backup to the fellow. The trainee is responsible for the initial evaluation of patients including history, physical examination, clinical assessment, and proposed approach. The fellow is also responsible for the initial evaluation of consultations and patients admitted to the pediatric endocrine inpatient service. As the year progresses, the fellow assumes increasing responsibility for problem list
formulation and planning diagnostic and therapeutic regimens under the guidance of the attending staff. He/She is provided the opportunity to enhance his/her teaching abilities by discussing other cases with pediatric residents / students who rotate through the pediatric endocrine clinic. The attending provides direct oversight and supervision and will add to the fellow’s discussions as appropriate.

The fellow also assumes the role of primary care provider for patients with chronic problems such as insulin dependent diabetes mellitus, hypopituitarism and congenital adrenal hyperplasia. (S)he will manage these patients in continuity over the entire period of fellowship, in consultation with a staff endocrinologist. These continuity patients are accrued through two separate venues. The first is at the VCU pediatric endocrinology clinic. In this setting, new fellows generate a panel of patients as they evaluate new patients in the clinic. They will also add continuity patients to this panel obtained from patients discharged from the in-patient services or consultations, thus providing them the opportunity to follow patients from admission to discharge and long-term follow-up. Each fellow also has his / her own special interest that will dictate the nature of additional patients added to the panel. For example, a fellow with special interest in thyroid disease may elect to add additional thyroid patients to his/her continuity panel as other patients matriculate. The fellow will thus accrue continuity patients derived from general pediatric consultations to community based and primary care clinic based practices. This offers the fellow the opportunity to broaden the scope of their practice, to develop improved understanding of the VCU health care system and its special requirements / problems, and the opportunity to practice their teaching to general pediatricians and pediatric residents.

While on the inpatient – consultation service, the first year fellow will also attend endocrine and diabetes clinic (Wednesday and Friday) at Children’s Pavilion, and will attend his/her continuity clinic on a weekly basis. Endocrine and diabetes clinic at Children’s Pavilion is attended by on-call faculty members who are also present at clinic conferences to provide
guidance and teaching on the patients seen by the fellow and in the interpretation of laboratory and imaging data as they become available. The continuity clinic is developed by the fellow during his/her tenure and supervised by his/her mentor. It is designed to represent the scope of pediatric endocrinology but also to allow the fellow the opportunity to accumulate a number of patients within his/her own special interests. Such cases could be used for clinical scholarship.

The first year fellow spends one block rotation on outpatient clinic, one block rotation on diabetes, and one block on research.

The outpatient clinic rotation is designed to provide the first year fellow with the opportunity to participate in specialized pediatric endocrine clinics at VCUHS. This includes the clinic at Pembrooke, and the multidisciplinary clinics in long-term cancer survivors, cystic fibrosis-related diabetes (CFRD), healthy lifestyles, Turner syndrome, transgender, lipid disorders, eating disorders, and thyroid neoplasia. During this rotation, the fellow will have no on-call responsibilities but will attend all scheduled conferences and will work with attending faculty to evaluate, present, discuss and develop a care plan for patients in these clinical settings. This will provide the fellow with a greater complexity of patients to evaluate and an opportunity to become familiar with the design and function of multidisciplinary care teams across the spectrum of endocrinology.

The diabetes rotation is designed to solidify important clinical skills during the first month of fellowship. The fellow attends diabetes clinic and diabetes camp, participates in diabetes education classes and diabetes immersion (wearing an insulin pump and sensor), and learns how to manipulate insulin pumps, sensors and meters. The fellow will spend time in the clinics with Ellen Dionne, RD, CDE and Suzanne Bona, RN, CDE with whom they will learn details of diabetes management including diabetes self-management education, down-loading pump and glucose monitor information, evaluating continuous glucose monitor tracings, and participating in all pump starts. The Pediatric Diabetes Education Program at VCU is
continuously recognized by the American Diabetes Association from August 2008. The fellow will develop an in-depth knowledge of diabetes management such that (s)he will acquire sufficient skill and technical expertise so that (s)he could develop his/her own diabetes education program after graduation. The program focuses on in-depth practical experience with intensive diabetes therapy, (emphasis on skills in education and pump therapy) and nutritional program development.

The research block is designed to allow the first year fellow the opportunity to select a research project and to begin to develop the background reading and specific aims. This will then be expanded during the required research course in year two which is organized by the VCU office of Graduate Medical Education. This 9 week course reviews study design, statistics, human subjects protection, and results in preparation of a completed research proposal for submission to the Institutional Review Board (IRB) early in year 2. This leads the second year fellow in an excellent position for beginning research during month 5.

The first year fellow will select a project appropriate to the fellowship track, define the research goals and objectives, meet with the mentor to fine-tune the hypotheses and technical approach, prepare a 15 min presentation on the proposed investigation which will be presented to the scholarship / graduate committee depending on the research track. Those in the traditional track will present their research proposal to the Scholarship Activity Committee of the Pediatric Endocrinology Fellowship Program. Those in the Master’s track will present to the Graduate Committee in Clinical and Translational Research. Based on these sessions, the fellow will prepare a research proposal for approval and funding.

Didactic Course Work

The first year fellow participates in several didactic courses to include research study design, statistics, human subjects protection, HIPAA, and CITI training.

A number of didactic conferences are used to broaden the fellow's perspective and
provide basic science correlation for the clinical experiences. A clinic conference is held during each endocrine/diabetes clinic during which patients seen are briefly presented and the disposition discussed. This serves as one focus of clinical teaching and the correlations with relevant biochemical, embryologic and/or immunologic pathology.

A core pediatric endocrine conference is held weekly. Attendance is mandatory for all fellows as well as medical students, residents, and adult endocrine fellows rotating through the pediatric endocrine service. This conference consists of an in depth discussion of a scheduled topic with emphasis on basic science and current clinical research. A relevant bibliography and hand out are distributed. The first year fellow will be expected to present approximately one quarter of these conferences with the remaining three quarters to be shared by faculty, senior fellows and/or rotating residents. The conferences will allow the fellow to acquire experience and ease preparing and presenting organized talks, in addition to allowing a forum for communication and dissemination of information among the group as a whole. See Appendix for Schedule.

The fellow is also required to attend the weekly Endocrine Journal Club, Endocrine Grand Rounds, Pediatric Grand Rounds, a monthly research conference at the VCU, and a quarterly continuous quality improvement meeting for the Division of Pediatric Endocrinology. The fellow is assigned specific dates throughout the three years of training for which he/she is responsible for the conferences. Pediatric Grand Rounds is assigned to each graduating fellow once during their third year and serves as the final preparation for teaching large audiences. The topic is selected with guidance from their faculty mentor and is researched in depth along with relevant literature citations. The VCU Pediatric Research conference is typically assigned once to each fellow during the latter part of the second or the third year. The fellow presents a summation of their research project beginning with a detailed rationale for their work, followed by results, conclusions and significance. Attendance at all research conferences given by other fellows is required in order to broaden the fellow’s exposure to a wide array of techniques and investigative
questions.

The first year fellow also participates in other joint conferences with the adult endocrine program to include: case conference, radiology conference, pathology conference, and multidisciplinary thyroid conference.

The fellow is expected to acquire competence in statistics, study design, epidemiology, scientific integrity, and data management. Courses are offered in these topics by the Graduate program at VCU as well as on-line for individual course study.

The fellow will also take the Orientation “Walk the walk” upon assignment to the VCUHS. This is a three day didactic session designed to review the pertinent Federal Codes and Regulations pertaining to patient confidentiality, ethics, human and animal research. The course also covers study design, and basic statistics.

**National Conferences**

The first year fellow is encouraged to spend one week in attendance at a National Meeting such as the Endocrine Society, the American Diabetes Association, the American Thyroid Association, or the Pediatric Academic Societies Meeting.

**Teaching**

During the course of this year, the fellow shares responsibility with the attending staff for teaching medical students and residents rotating on the pediatric endocrine service. He/She is expected to prepare and present at least 3-4 presentations to the pediatric resident staff morning lecture series at VCU.

Throughout the entire fellowship program, when on service, the fellow is responsible to provide consultation support to the emergency department, general pediatric inpatient services, PICU, PPCU and NICU. The fellow evaluates all consults requested, and presents these to the
pediatric endocrine attending. As the fellow develops confidence in basic endocrine problems (s)he will discuss these consults with the requesting physicians so as to develop skills in effective consultation and teaching small groups.

**Second Year Pediatric Endocrine Fellow:**

The overall second year plan is designed to increase the proficiency, independence, and teaching abilities of the fellow. Didactic course work that is designed to improve teaching skills is provided through the VCU. The second year of the program solidifies the pediatric endocrine curriculum and experience through continuity clinic and acquisition of new patients, expands the medical horizons into a selective in clinical pathology – thyroid disease and provides the opportunity for multidisciplinary learning in specialized clinics related to long-term cancer survivors, cystic fibrosis-related diabetes, healthy lifestyles clinic, Turner syndrome, transgender care, lipid disorders, eating disorders, and thyroid neoplasia. The second year is increasingly devoted to research. This begins with a 9 week course offered by the Graduate Medical Education Department of VCU. This required course reviews study design, statistics, human subjects protection, and results in preparation of a completed research proposal for submission to the Institutional Review Board (IRB) early in year 2. This leads the second year fellow to an excellent position for beginning research during month 5. The fellow will be expected to begin the actual physical work on a clinical or laboratory research project of his/her own design. It is expected that the research project(s) will lead to publication and that the fellow selecting the Master’s track will complete all course requirements for the Master’s Degree in Clinical and Translational Science.

Specific expertise in most other areas of research relevant to endocrinology is available among the faculty (see list of research mentors and project areas). Thus as the fellow desires to learn techniques (i.e., tissue culture, receptor studies, molecular biology, clinical studies, etc.)
supervision will be accessed and facilities made available to him/her. The fellow has had preliminary exposure to the principles of endocrine research through journal clubs, conferences and attending supervision during the first year.

**Goals and Objectives for the Second Year Include:**

- Continuing to develop and improve the skills acquired in first year
- To understand potential problems and limitations of endocrine testing
- To develop skills in interaction with and acquiring necessary information from primary care physicians leading to effective consultation
- Become increasingly independent in ordering appropriate laboratory tests and procedures
- Improve skills at treatment planning and communicating these to primary care physicians
- Solidify the research focus
- Write a research proposal and obtain IRB approval
- Develop skills at lecturing to larger groups (10-15)
- Prepare an abstract for national presentation
- Complete a project in quality improvement and follow through with effective programs that lead to improved patient care

The second year pediatric endocrine fellow has reduced clinical responsibilities that become more focused and provide an opportunity to lead multidisciplinary teams in highly specialized clinical settings. The second year fellow will have two rotations on the inpatient – consultation service, one block of clinical pathology - imaging / thyroid clinic, and will attend in multidisciplinary clinics averaging one half day each week devoted to long-term cancer survivors, cystic fibrosis-related diabetes (CFRD), healthy lifestyles, Turner syndrome, transgender, lipid disorders, eating disorders, and thyroid neoplasia. The second year fellow will also attend his/her
own continuity clinic.

On the inpatient – consultation service, the second year fellow will become increasingly independent and will have shared supervision of the inpatient resident team with the attending. The fellow will independently evaluate admissions and consults and present these to the faculty who will make rounds daily with the fellow to discuss these plans and will be on call as backup to the fellow. The trainee is responsible for the initial evaluation of patients including history, physical examination, clinical assessment, and proposed approach. The fellow is also responsible for the initial evaluation of consultations and patients admitted to the pediatric endocrine inpatient service. The fellow is expected to demonstrate increasing responsibility for problem list formulation and planning diagnostic and therapeutic regimens under the guidance of the attending staff. He/She is provided the opportunity to enhance his/her teaching abilities by discussing cases with pediatric residents / students who rotate through the pediatric endocrine service. The attending provides indirect oversight and supervision and will add to the fellow’s discussions as appropriate.

The **clinical pathology rotation** is led by Lorin Bachmann, PhD who is Director of the Clinical Chemistry Laboratory. She will supervise the fellow in obtaining an overview of the use and limitations of hormone assays with techniques such as Immunometric Assays, enzyme linked immunosorbent assay (ELISA), and BioPlex. The rotation is designed to teach the fellow how hormone assays are performed, the limitations of hormone assays, and the interpretation of hormone assays. Opportunities are provided to become familiar with the tools of molecular investigation. Fellows will learn the power and pitfalls of polymerase chain reaction, DNA sequencing, immunohistochemistry, Western blots, and gene or protein data base query.

The **thyroid rotation** is led by Francisco Celi, MD who is Chief of Internal Medicine Endocrinology and head of the thyroid clinic along with Melvin Fratkin, MD, and Uma Prasad, MD. The fellow will attend thyroid clinic, evaluate patients, participate in performing thyroid
ultrasound, interpreting thyroid ultrasound, fine needle aspiration, and other thyroid imaging techniques. Dr Celi will supervise the fellow in developing basic skills and understanding in the field of thyroid disorders.

Melvin J Fratkin, MD is Chief of Nuclear Medicine and will supervise the fellow in developing his/her understanding of nuclear medicine techniques, safety and federal regulations to include radioactive iodine ablation of the thyroid.

Uma Prasad, MD is Chief of the thyroid ultrasound – fine needle aspiration (FNA) service at VCU. She will assist the fellow in developing his/her skills in thyroid ultrasound / FNA and in the interpretation of FNA results.

**Multi-Disciplinary Clinics:**

The second year fellow will attend multidisciplinary clinics in pediatric endocrinology to include: long term cancer survivors, cystic fibrosis-related diabetes (CFRD), healthy lifestyles, Turner syndrome, transgender, lipid disorders, eating disorders, and thyroid neoplasia. These specialized clinics are led by faculty in pediatric endocrinology and other disciplines and provide complex medical care to a wide variety of patients. On average, the fellow will spend one half day each week in these opportunities.

The **long-term cancer survivors** clinic is led by Dr Shankar from Pediatric Endocrinology and Dr Gowda from Hematology Oncology. Approximately 40% of all cancer survivors develop endocrine complications and this clinic provides the opportunity to manage this complex population.

**CFRD** is led by Dr Edmond Wickham, Dr. Melinda Penn, and Ellen Dionne, RD, CDE. This provides the fellow an opportunity to experience a different form of DM with exceptional emotional, nutritional and medical needs.

The **healthy lifestyle clinic** for overweight and obese children is led by Melanie Bean, PhD. Dr Bean is a behavioral psychologist with special expertise in motivational interviewing.
The fellow is provided the opportunity to enhance his/her skills in motivational interviewing, and to learn the complex interplay between nutrition, exercise, the environment, behavior and obesity. Dr. Ronald Evans who is head of the Human Performance Laboratory will assist the fellow in learning techniques to improve exercise tolerance in obese patients. Ashley Cappel, RD will assist the fellow in learning the techniques for determination of basal metabolic rate.

**Turner syndrome clinic** is led by Dr. Shankar from Pediatric Endocrinology, Dr. Carter from Cardiology, and Dr. Karjane from Obstetrics and Gynecology. This clinic provides a “medical home” for children and adults with Turner syndrome and allows them to be followed throughout the entire life spectrum from birth, through childhood and puberty, into young adult life with assisted fertility.

The **transgender clinic** is led by Dr. Melinda Penn from Pediatric Endocrinology and Dr. Lisa Griffin PhD from Psychology. This clinic offers the fellow the opportunity to participate in hormone therapy for those pursuing a gender reversal along with the opportunity to participate in the complex psychosocial issues raised by this disorder.

The **lipid disorder clinic** is led by Dr Carter from Pediatric Cardiology. The fellow will learn goals for lipid control and various management strategies.

The **eating disorder clinic** is led by Dr Gow from Child Psychology and Dr Penn from pediatric endocrinology. The fellow will learn the impact of eating disorders on the function of the entire endocrine system, how to interpret hormone levels in patients with eating disorders and how to manage this complex entity.

The **thyroid neoplasia clinic** is led by Dr Francis from pediatric endocrinology and Dr Grover from surgical oncology. Thyroid cancer is the second most common solid malignancy in adolescent girls and is generally managed by pediatric endocrinology after initial surgery. This clinic provides the opportunity to observe thyroid surgery, radioactive iodine ablation, thyroid ultrasound follow up and management.
The remainder of second year rotations are devoted to research beginning with the required research course (July – Sept) that results in a final research proposal to be submitted to the IRB, selection of a research mentor, submission of a proposal for funding, and direct study participation. It is expected that the second year fellow will have an abstract ready for submission during the latter half of the second year.

**Metabolic Disease Clinic** is led by Arty Pandya, MD and Laura Duncan MS, RD. The fellow will obtain greater expertise in the diagnosis and management of inborn errors of metabolism including glycogen storage diseases, metabolic acidosis, fatty acid oxidation defects, and urea cycle abnormalities.

**National Conferences**

The second year fellow is encouraged to spend one week in attendance at a National Meeting such as the Endocrine Society, the American Diabetes Association, the American Thyroid Association, or the Pediatric Academic Societies Meeting and will generally present his/her research to one or more of these meetings.

**Teaching**

During the course of this year, the fellow has increasing responsibility for teaching medical students and residents rotating on the pediatric endocrine service. He/She is expected to prepare and present at least 3-4 presentations to the pediatric resident staff morning lecture series at VCU.

Throughout the entire fellowship program, when on service, the fellow is responsible to provide consultation support to the emergency department, general pediatric inpatient services, PICU, PPCU and NICU. The fellow evaluates all consults requested, and presents these to the pediatric endocrine attending. During the second year, the fellow is expected to develop
confidence in more unusual endocrine problems allowing him/her to discuss these consults with the requesting physicians so as to develop skills in effective consultation and teaching small groups.

**Third year Pediatric Endocrine Fellow**

The third year is devoted to research with a goal to present the findings at a national meeting and to publish research findings in a peer-reviewed journal. The third year fellow will attend continuity clinic and will have one block rotation on adult endocrinology and one block on the inpatient-consultation service. During the inpatient-consultation service (s)he will have primary responsibility to evaluate patients, develop care plans, teach junior fellows and residents, and hone his/her skills for post-fellowship practice.

The overall goals for the third year are to become knowledgeable and proficient in the sub-specialty of pediatric endocrinology, to develop critical skills at reading and interpreting pertinent endocrine literature, to develop research skills that will facilitate future academic productivity, to develop interpersonal skills that are professional and conducive to effective utilization of the health care team, and to develop a style and dedication to life-long learning.

The specific objectives for the third year are:

- To consolidate skills learned during the first and second years.
- Focus on the clinical / basic science research project leading to preparation and submission of a peer-reviewed manuscript
- Successfully present and defend the research to either the faculty research committee or the Graduate School Research Committee for the Masters in Clinical and Translational Science
- Communicate effectively with referral based health care providers
• Develop effective communication with other sub-specialists
• Demonstrate the ability to prioritize work load in the academic, teaching and patient care arenas
• Formulate short and intermediate goals that define a long-range career trajectory

The third year will consist of 10 months of time devoted to research, one block on the adult endocrine service and one block of "acting-attending" on the pediatric endocrine service. There is also time for any required rotations that might have been deferred due to scheduling conflicts, prolonged illness, etc during the first or second years. During the block when the fellow “attends” on the in-patient service, (s)he will make rounds daily during the week (Monday – Friday) and will take call one week during the month. (S)He will thereby have three week-ends during the month (average one day / week) with no call responsibilities. The fellow will be indirectly supervised by the on-call attending who will independently examine all admissions and consults and discuss these with the fellow should there be any discrepancies in evaluation or plans and will discuss all telephone calls with the fellow during daytime hours unless the fellow feels a need for more direct supervision. On-call attending faculty are always available for the fellow should the need arise.

During the third year, the trainee will attend one clinic day per week (his / her continuity clinic) and attend all clinic conferences.

The third year fellow in the traditional track will be expected to complete, prepare and present his/her research at one or more national meetings and to prepare his/her work for publication in a peer reviewed journal. The third year fellow in the Master’s track will be expected to prepare and present his/her research at one or more national meetings, to prepare his/her work for publication in a peer reviewed journal, and to defend his / her work to the Graduate Thesis Committee.
Adult Endocrine Service Rotation (one block)

The fellowship in adult endocrinology is housed under the internal medicine department at VCU. This group, directed by Francisco Celi, MD consists of thirteen internists, all of whom are board certified in endocrinology. They represent an impressive resource of research knowledge and productivity as well as clinical experience and expertise. The fellow rotates for one block on the adult endocrine specialty services to include the outpatient clinics. During this time, they are released from all obligations to the core program in Pediatric Endocrinology with the exception of one continuity clinic / week. They evaluate consults in the endocrine clinic. The fellow becomes familiar with the progression of endocrine disorders across the age-spectrum and in particular with regard to issues of infertility, metabolic bone disease, and thyroid diseases.

Elective Rotations

Additional elective rotations are available for the individual fellow who would like greater exposure to areas of practice that overlap with endocrinology. These include genetics, imaging, and nutrition.

Genetics Service Rotation (one block)

The Training program in Medical Genetics at VCU is under the direction of Arty Pandya, MD. The fellow rotates for one month on the Genetics service. During this time, (s)he is released from all obligations to the core program in Pediatric Endocrinology with the exception of one continuity clinic / week. (S)he evaluates admissions and sees consults in the pediatric genetics clinic. The fellow becomes familiar with the wide variety of chromosomal, monogenic and syndromic disorders that present to endocrine clinics with alterations of growth, development, or defects in intermediary metabolism to include glycogen storage diseases, fatty-acid oxidation defects, amino acid disorders, and organic acidemias. In addition, the Genetics program maintains clinical research protocols investigating the molecular etiology of a wide variety of
conditions to include obesity, fatty-acid oxidation defects, amino acid disorders, organic acidemias, and others. The fellow gains critical skills in the concepts of genetic counseling and in the construction and execution of clinical and molecular research while learning about many of the more rare pediatric endocrine or metabolic disorders.

**Endocrine Imaging / Nuclear Medicine / Thyroid**

Lakshmana Das Narla, MD, MBBS is Chief of pediatric radiology at the VCUHS and will supervise the fellow in developing basic skills and understanding in the field of endocrine imaging. This will include the use of magnetic resonance imaging (MRI), computerized tomography (CT), and ultrasonography (US) for the assessment of endocrine glands and neoplasia as well as bone age radiography.

Melvin J Fratkin, MD is Chief of Nuclear Medicine and will supervise the fellow in developing his/her understanding of nuclear medicine techniques, safety and federal regulations to include radioactive iodine ablation of the thyroid.

Francisco Celi, MD is Chief of Internal Medicine Endocrinology and head of the thyroid clinic. The fellow will attend thyroid clinic, evaluate patients, participate in performing thyroid ultrasound, interpreting thyroid ultrasound, fine needle aspiration, and other thyroid imaging techniques. Dr Celi will supervise the fellow in developing basic skills and understanding in the field of thyroid disorders.

**Childhood Nutrition Rotation**

Ellen Dionne, RD, CDE and Ashley Cooper, RD will supervise the fellow in acquisition of his/her knowledge of the field of infant and child nutrition. The fellow will rotate on the nutrition clinic at Pembrooke during which time (s)he will prepare consultations for the nutrition team including diabetes management and insulin pump therapy, failure to thrive, obesity
and eating disorders. The fellow will work with the interdisciplinary teams that include nutrition, human performance, psychology, nursing and medicine. (S)He will develop an appreciation for the complexities of eating disorders, overweight and obesity in our population and an interdisciplinary approach to prevention and treatment.

**National Conferences**

The third year fellow is encouraged to spend one week in attendance at a National Meeting such as the Endocrine Society, the American Diabetes Association, the American Thyroid Association, or the Pediatric Academic Societies Meeting and will generally present his/her research to one or more of these meetings.

**Endocrine University**

The third year fellow will generally attend Endocrine University, a one week course offered by the Mayo Clinic. This course focuses of procedures in endocrinology to include thyroid fine needle aspiration, thyroid ultrasound, bone mineral density, billing coding and office management.

**Teaching**

During the course of this year, the fellow has increasing responsibility for teaching medical students and residents rotating on the pediatric endocrine service. He/She is expected to prepare and present at least 3-4 presentations to the pediatric resident staff morning lecture series at VCU.

Throughout the entire fellowship program, when on service, the fellow is responsible to provide consultation support to the emergency department, general pediatric inpatient services, PICU, PPCU and NICU. The fellow evaluates all consults requested, and presents these to the
pediatric endocrine attending. During the second year, the fellow is expected to develop confidence in more unusual endocrine problems allowing him/her to discuss these consults with the requesting physicians so as to develop skills in effective consultation and teaching small groups.

**On-Call Responsibilities**

During all pediatric endocrine rotations, the fellow will be entirely available to the staff of VCUHS for the duration of the rotation. **Pediatric endocrinology does not provide in-house call.** The fellows will be available on-call from home. On rare occasion, approximately once / year, there may be an admission so critically ill that the fellow and staff will need to spend the night in the hospital. ACGME guidelines limit the number of hours the trainees can be on call. This requires they be free from all clinical duties and responsibilities at least one day/week (averaged over the month), they work no more than 80 hours/week, if they spend the night in hospital they will be released at 0800 the following AM, and that if they spend the night in hospital they are provided with their own on-call room.

The pediatric endocrine fellow on the inpatient – consultation service will be on-call during daytime hours Monday – Friday for all consults and admissions but will not take night call from home. (S)He will respond to telephone calls during the day under the direct supervision of the attending on-call beginning in OCT of the first year.

The second year pediatric endocrine fellow will be on-call during evening and night hours from home one week / month. (S)He will round on all in-patients and consults with the on-call attending and will supervise the pediatric residents and students as they develop and implement care plans for all in-patients. (S)He will also respond to telephone calls during the week under the indirect supervision of the attending on-call. The attending will discuss all telephone calls and follow up with the fellow either during or after all calls.
The third year pediatric endocrine fellow will be on-call during evening and night hours from home one week-end/month. (S)He will round on all in-patients and consults with the on-call attending on week-ends and will supervise the pediatric residents and students as they develop and implement care plans for all in-patients. (S)He will also respond to telephone calls during the week-end hours under the indirect supervision of the attending on-call. The attending will discuss all telephone calls and follow up with the fellow either during or after all calls.

**Didactic Course Work**

Course work is required in basic sciences, epidemiology, biostatistics, study design, ethics, and scientific integrity and are provided through the VCU. VCU is the largest university in Virginia and ranks among the top universities in the country for sponsored research. VCU enrolls more than 32,000 students in 205 certificate and degree programs and is ranked 4th in the nation for health services administration and 57th for clinical psychology. The VCU provides core faculty in Epidemiology and Community Health, Biostatistics, Social Behavioral Health, Child and Adolescent Psychology, Biochemistry and Molecular Biology, Human Genetics, and the Colleges of Allied Health, Nursing, and Pharmacy; administrative support, extensive laboratory research facilities, and a full spectrum of collaborating and supporting disciplines.

Mandatory common core didactic courses are provided at the beginning of fellowship and annually thereafter and are sponsored by the VCUHS. Topics include those related to medical ethics (end-of-life and advanced directives, patient confidentiality), systems based practice (ICD9 and procedure coding, third party collections), personal ethics and professionalism.

Fellows enroll in and complete training in biostatistics through the VCU including BIOS 543 / STAT 543 and BIOS 544 / STAT 544 each of which is a 3 semester hour credit course. Research study design and human subjects protection in research are required and are provided through the Center for Clinical and Translational Research at the VCUHS.
Additional course work

Additional course work is provided through the VCU Center for Clinical and Translational Research (CTSA). The Center offers programs in a wide variety of topics such as study design, statistics, epidemiology, human subjects protection and animal use in research. (A detailed description is provided in the course outline)

Research

Research experience is provided on an individualized basis according to the interest of the fellow. In general, the fellowship in pediatric endocrinology offers two tracks:

1. Conventional Track - designed to provide the clinical skills and research experience necessary to qualify the candidate for the Certification Examination in Pediatric Endocrinology of the American Board of Pediatrics. The fellow electing this track will complete all clinical requirements and course work for the program and will be allowed to elect a research area commensurate with his/her interests. Research options span a wide array of opportunities including molecular biology (role of endothelial growth factors in thyroid cancer), genetics (role of retinoic acid induced 1 in obesity), biochemistry (lipid disorders, role of advanced glycation end products in islet apoptosis), physiology (insulin resistance and ovarian function), epidemiology (impediments to successful weight loss in overweight adolescents), and psychology (motivational interviewing for children with obesity). The goal for each fellow is to develop a research focus that can be maintained into future academic careers and, in the short term, to publish his/her research findings as first author in the peer-reviewed literature. The fellows are also required to participate in national clinical trials (NIH-sponsored Trialnet type 1 diabetes prevention trials) where they gain insight into the structure and function of large multi-center clinical trials.

2. Masters Program in Clinical and Translational Research track sponsored jointly by
the Division of Pediatric Endocrinology and the Graduate Program in Clinical and Translational Research. The Graduate Program in Clinical and Translational Research is led by John Clore, MD. Fellows electing this track will simultaneously complete requirements for the Certification Examination in Pediatric Endocrinology and the Master’s in Clinical and Translational Research. The fellow electing this track will complete all clinical requirements and course work for the program but will develop advanced academic skills necessary for a successful academic career in the multidisciplinary team environment of contemporary scientific investigation. This (s)he will obtain through completion of all degree requirements for the Master’s in Clinical and Translational Science.

The Master of Science in Clinical and Translational Sciences program is designed for the fellow who wishes to acquire more in-depth research skills. The program is supported by the VCU Center for Clinical and Translational Research (CCTR) which is funded by CTSA award No. UL1TR000058 from the National Center for Advancing Translational Sciences and provides training and mentoring for a new generation of investigators who, regardless of primary area of interest, will be able to understand the methods and techniques used along the pathway from the bench to the bedside and beyond, to the community. The program offers a broad foundation of core courses and emphasizes the importance of interdisciplinary approaches to research. The master’s degree can be earned upon completion of 30 credit hours of core and elective courses, including a master’s essay in the form of an NIH-style proposal. The program provides a sound foundation in clinical and translational research principles and thereby prepares the student to engage in many components of investigative processes.

The program requires a minimum of 30 credit hours distributed between core and elective courses. The core curriculum, required of all students in the program, consists of 21 credit hours, including a minimum of 6 credit hours in statistics or experimental design. An additional minimum of 9 credit hours of elective courses completes the program. The core provides students with an
understanding of the concepts and importance of clinical and translational sciences to the advancement of health care provision and associated patient outcomes, as well as grounds students with the emerging computational tools they will need to become leaders in the advancement of health sciences.

Students will be required to attend the research seminar course each semester they are in the program (and register for the course a minimum of three times) in order to stay abreast of current health and human services research and to develop their communication skills. Additionally, the core includes a course on responsible conduct of research and scientific integrity, which will ensure that students understand the broad ethical implications of biobehavioral and biomedical research, understand what constitutes scientific fraud and misconduct, and are aware of their responsibilities as scientists. A typical program of study will include:

Core

BIOS 571 Clinical Trials 3
CCTR 520 Fundamentals of Research Regulation 2
CCTR 550 Foundations of Clinical and Translational Research: The Intersection of Theory and Application 3
CCTR 690 Research Seminar in Clinical and Translational Sciences 3
CCTR 700 Master’s Essay 3
OVPR 601 Scientific Integrity 1
Statistics, clinical trial or translational experimental design courses (chosen with approval of Research Advisory Committee) 6
Electives 9 (chosen with approval of Research Advisory Committee)
Total 30
Additional courses available through the CCTR include:

CCTR 520 Fundamentals of Research Regulation

CCTR 550 Foundations of Clinical and Translational Research: The Intersection of Theory and Application

CCTR 690 Research Seminar in Clinical and Translational Sciences

CCTR 691 Special Topics in Translational Research

CCTR 692 Special Topics in Translational Research

CCTR 700 Master's Essay

CCTR 801, 802, 803 Research Practicum I, II, III

CCTR 810 Foundations of Translational Research

CCTR 815 The NIH Proposal Challenge

CCTR 897 Directed Research in Clinical and Translational Sciences

CCTR 898 Dissertation Research in Clinical and Translational Sciences

The fellow will select a particular research focus commensurate with his/her interests. Fellows in this track will be expected to develop all academic skills required for scientific inquiry and, in the short term, to publish his/her research findings as first author in the peer-reviewed literature. They are also encouraged to participate in national clinical trials (NIH-sponsored Trialnet type 1 diabetes prevention trials) where they gain insight into the structure and function of large multi-center clinical trials.

Regardless of whether the fellow is in the conventional or Master's Track, during the first year, the fellow is expected to acquire competence in statistics, study design, scientific integrity, and data management. Courses are offered in these topics by the VCU CCTR. Fellows
in the conventional track (Track 1) will complete two semester classes in biostatistics (BIOS 543/STAT 543 Statistical Methods I and BIOS 544/STAT 544 Statistical Methods II), each of which grants 3 semester hour credits. For those electing the Master's Track in Clinical and Translational Research (Track 2) the fellow will take 6 credit hours of didactic course material toward the Master's Program which will take place during the “research” hours.

**Research programs currently underway in the Division of Pediatric Endocrinology and Metabolism include:**

1. **Healthy Lifestyles Program**

   This core of the division is supported by the multidisciplinary faculty from pediatric endocrinology, pediatrics, internal medicine, family medicine, psychology, nutrition, pediatric surgery, pediatric cardiology, pediatric hematology – oncology, exercise physiology, social and behavioral health and biostatistics.

   **Pediatric/Adult Endocrinology**
   - Edmond P. Wickham III, MD MPH
   - Gary Francis, MD PhD
   - Anshu Gupta, MD
   - Diane Biskobing, MD
   - Trang Le, MD

   **General Pediatrics**
   - Niran R. Wijesooriya, MD

   **Pediatric Surgery**
   - David Lanning, MD PhD
   - Claudio Oiticica, MD

   **Pediatric Cardiology**
The program supports 11 active research protocols that have generated 46 publications relating to childhood obesity its treatment and its management.

2. Diabetes

The diabetes program is supported by an American Diabetes Association Recognized Diabetes Self-Management Education Program, the NIH-Sponsored Trialnet Research Affiliate, and four active research proposals. These clinical studies include Heart Rate as Exercise Indicator for Closed Loop Control (artificial pancreas) in Children with T1DM, abatacept for prevention of T1DM in at risk relatives, oral insulin for prevention of T1DM in at-risk individuals,
and alpha-1-anti protease for new onset T1DM in children. Recently completed studies include the role of prolactin receptor gene polymorphisms in gestational diabetes.

3. **Receptor for Advanced Glycation End Products**

The receptor for advanced glycation end-products (RAGE) appears to have important roles in metabolic syndrome and islet apoptosis. Active protocols investigate alternative mRNA splicing of the RAGE receptor, advanced glycation end-products in children with metabolic syndrome, PCOS or obesity, and a trans-genic mouse knock-out model for RAGE metabolism.

4. **Adult Endocrinology**

The Internal Medicine – Endocrinology program offers a wide variety of research opportunities in the Clinical Research Study Unit or Basic science in the following areas:

- regulation of insulin receptor and leptin gene expression
- regulation of gluconeogenesis and hepatic glucose output
- insulin regulation of human adrenal and ovarian steroidogenesis
- cellular mechanisms of insulin signal transduction
- control of prolactin secretion
- search for a novel pituitary hypercalcemic factor and components of the adenylate cyclase system
- Adolescent obesity and the role of adipokines in weight
- Thyroid hormone regulation and peripheral action

**Endocrine University**

The third year fellow is generally invited to attend Endocrine University, sponsored by the Association of Clinical Endocrinologists and held annually at the Mayo Clinic. This course is a one week didactic and hands-on experience leading to certification in thyroid ultrasound, fine needle aspiration (FNA), bone mineral assessment, diabetes education and the
Evaluation

The fellow will be evaluated every month by clinical faculty, every 6-months by the Clinical Competency Committee (CCC) in concert with a self-evaluation and individual learning plan, and annually by a 360 evaluation (see evaluation section below for details). The first meeting of the CCC will be held at the conclusion of the first 6-month of training. For those in the traditional track, the committee will consist of the following standing members / voting faculty: 1. Melinda Penn, MD, Assistant Professor of Pediatrics (Endocrinology) and Chair of the CCC, 2. Edmond Wickham, MD Associate professor Internal Medicine and Pediatrics (Endocrinology), 3. Anshu Gupta, MBBS, Assistant Professor of Pediatrics (Endocrinology), and 4. Roopa Shankar, MBBS, Assistant Professor of Pediatrics (Endocrinology) and 5. Timothy Bunchman, MD, Professor of Pediatrics (Nephrology) who serves as the member outside the discipline. The Program Director, Gary Francis MD, PhD attends as observer without voting privilege. For those in the Master’s track, the committee will consist of the same standing members / voting faculty but additional faculty will be added specific to the research program of the fellow. This has previously included Sarah Elsea, PhD (Genetics) or Suzanne Barbour, PhD (Biochemistry) as appropriate for the research work of the trainee.

The CCC will meet on a semi-annual basis to review the progress of each fellow in the program. The committee will review all clinical rotations and evaluate the fellow with respect to the milestones provided by the ACGME Subspecialty Training programs along with the Entrustable Professional Activities (EPAs) listed below. For research rotations, the CCC will review each abstract and manuscript prior to submission for publication and will also have a final session during which the fellow will defend his / her work in oral format. Written evaluations of each fellow will be prepared during the semi-annual meetings and these will be maintained in the radioimmunoassay laboratory.
fellow’s academic file (see appendix for evaluation form).

Although the fellow may solicit research supervision from faculty as needed, a specific faculty member will be identified as primary research advisor during the first year. This person will be responsible for providing direction in planning the project and facilitation of the use of specific resources as needed. The advisor will also work to insure that the research is presented to regional and national meetings as well as published. Research faculty are available at the various schools and departments at VCU on an individual basis. Selection of the research mentor shall be coordinated and approved through the Program Director.

**Core Competencies Training:**

The fellows complete training in several areas that directly support acquisition of the core competencies. Training also includes consideration of others sponsored by VCUHS, training in ethics and professionalism by VCUHS, and training in sexual harassment by VCUHS.

**Evaluation of Core Competencies:**

Evaluation of the fellow's performance will be based on several instruments designed to focus on the areas of core competence outlined by the AAP, ABIM, and ACGME (Patient care, Medical knowledge, Interpersonal skills and communication, Practice based learning and improvement, Professionalism, and Systems based practice). Fellows are also evaluated according to the milestones outlined for subspecialty trainees by the ACGME and the entrustable professional activities (EPAs) developed by the fellowship in pediatric endocrinology (see sections on milestones and EPAs).

**Patient care:** Fellows must be able to 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.

In accord with this competence, the fellow will acquire and demonstrate skills in gathering
essential and accurate information about the patient using medical interviewing, physical examination, diagnostic studies, and developmental assessment. He/she will make informed diagnostic and therapeutic decisions based on this information, current scientific evidence, and clinical judgement. He/she will develop and carry out patient care plans based on this information, prescribe and perform in a competent manner all indicated tests and procedures, and will counsel the patient and family regarding the measures needed to maintain health, prevent disease, understand illness and its treatment, share decision making, obtain informed consent, comfort and allay fears.

The instruments utilized in assessing this competence include faculty evaluations, peer evaluations, patient/parent questionnaires, and the 360 degree evaluation (evaluation from faculty, peers, residents, general pediatrics faculty, nursing, nutrition, clinic administration, parents, and patients).

Medical Knowledge:

Fellows must demonstrate knowledge about established evolving biomedical, clinical, epidemiological, and social-behavioral sciences and the application of this knowledge to the care of patients.

The fellow will acquire skills in the critical evaluation of the literature, current medical information, computer-based search engines, and the scientific evidence on which patient care is based.

Instruments used in these assessments include faculty evaluations, in training examination, participation in rounds and conferences, and certification by Endocrine University in thyroid ultrasound, FNA, bone mineral assessment, diabetes education and the radioimmunoassay laboratory.
Interpersonal Skills and Communication:

Fellows must be able to demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, parents, and professional associates.

The fellows are expected to acquire skills in communicating in a developmentally, culturally, and educationally appropriate manner with patients and families. They will communicate effectively with physicians, other health professionals, health related agencies, work as an effective member of the health care team, act as a consultant to other physicians and trainees, and maintain comprehensive, legible and timely medical records.

This competence will be assessed by faculty evaluation, peer review, patient/parent surveys, and 360 evaluation.

Practice Based Learning and Improvement:

Fellows must be able to use scientific methods and evidence to investigate, evaluate, and improve their patient care practice.

The fellows are expected to take primary responsibility for life-long learning to improve their skills and knowledge. They will analyze their own practice experience to determine their areas of strength and weakness. They will locate, assimilate and appraise the evidence from scientific studies that relate to the care of their patients. They will effectively utilize information technology to facilitate this process. They will acknowledge medical errors and assess means by which to prevent them in the future.

This competence will be assessed by faculty evaluation, peer evaluation, practice portfolios, case logs / chart reviews, participation in rounds and conferences, and by continuous quality improvement projects.

Professionalism:
Fellows will demonstrate a commitment to professional responsibilities, adherence to ethical principals, and sensitivity to diversity.

The fellows will demonstrate respect for and responsiveness to the needs of the patient and society. This will be evidenced by accepting responsibility for patient care, demonstrating integrity, honesty, compassion, and empathy, respecting privacy and autonomy, demonstrating accountability and commitment, and responsiveness to the patient that supercedes that to self.

The instruments used to assess this competency include faculty evaluations, peer evaluations, and patient surveys.

**Systems Based Practice:**

Fellows must practice quality health care and advocate for patients in the health care system.

The fellows will know how different types of medical practice differ in controlling costs, assuring quality and allocating resources. They will practice cost-effective health care that does not compromise quality, advocate for patient care, know how to work with case managers and systems, and know how to advocate for disease prevention.

The instruments used to assess this competence include faculty evaluations, peer evaluations, patient surveys, and teaching conferences.

**Evaluations of trainees and the program:**

Periodic formal written evaluations will be made of the trainees and the program. These are designed to monitor the success of the program in meeting the goals and objectives of the educational curriculum.

Formal written evaluations of each fellow will be completed by the attending staff following each rotation (see competencies at a glance) and on a semi-annual basis by all faculty (competency based evaluation forms). These will be collated in anonymous fashion and
discussed with the fellow by the program director and by other attending staff as the director
deems necessary. Similarly, the fellow will complete self-evaluations on a semi-annual basis
(competencies at a glance). The fellows will also be evaluated on a yearly basis using the 360
degree evaluation in which they are evaluated by the faculty, trainees, peers, students,
administrative personnel, parents and patients. This snap-shot provides an overall view of their
role in the health care team and especially their sensitivity, professionalism, and management of
systems based issues.

The fellow will complete evaluations of the program on an annual basis. The office of the
program director will receive these reports, collate them into anonymous feed-back, and prepare
a summary statement, based on which, the program director will take any appropriate action.

An annual meeting of all members of the attending staff and fellows will be held to
evaluate the strengths and weaknesses of the program. This meeting will reassess program
objectives of the previous year and serve as a forum to realign the program for the next year to
accomplish the fellowship goals for each fellow within the 3 year time frame of the program.

The performance of fellows on the in service training examination as well as the pediatric
board exam of the American Board of Pediatrics and the pediatric endocrinology board exam of
the American Board of Pediatrics will be utilized to help gauge the success of the individual
fellow as well as the program strategies. The fellow is required to successfully pass the pediatric
board exam of the American Board of Pediatrics or of the American College of Osteopathic
Physicians by the conclusion of the second year of the program. Failure to do so may be
grounds for remediation or disciplinary action.

The program participates in the VCU quality assurance programs. Quality assurance is
integrated into the department program and all fellows are expected to participate actively. Each
fellow will perform a review that will be presented to the quality assurance meeting and they will
be responsible for follow-up of this area. All charts from clinics and inpatients are reviewed on a
regular basis by the attending of record. A formal chart review will be conducted by the faculty for each trainee and will become part of the evaluation for patient care and for medical knowledge.

**Facilities**

The fellows have full access to all facilities in the participating institution: The VCU, VCUHS, and MCVH. Serving a referral population of approximately 2,000,000, the VCU pediatric programs provide 100,000 outpatient visits, 450 air and ground transports, 19,000 emergency room visits, 1,000 intensive care admissions and 3,500 acute care admissions annually. The clinical platforms include an 11 bed pediatric emergency room, a 30 bed well-born nursery, a 50 bed NICU, a 12 bed PICU, a 7 bed PPCU, and 48 acute care pediatric beds. The Department of Pediatrics is home to 110 faculty representing 25 sub-specialties, 87 investigator-initiated research programs and 58 clinical trials.

The MCV hospital serves as the training hospital for the approved pediatric residency program sponsored by the VCUHS.

On December 11, 1837, the president and trustees of Hampden-Sydney College created a medical department in Richmond, which became the Medical College of Virginia in 1854. In 1968, MCV became part of the Virginia Commonwealth University, which today is an urban university with two campuses offering over 150 undergraduate, graduate and professional degree programs.

The core residency program in pediatrics hosts a fully accredited 3-year residency in pediatrics, a combined residency in medicine/pediatrics, and fellowships in six sub-specialties (allergy/immunology, critical care, cardiology, infectious diseases, hematology/oncology and neonatology). There are currently 39 residents in pediatrics, 19 in medicine/pediatrics and 2 in physical medicine/rehabilitation under the pediatric umbrella. Incumbents represent a diverse
cross-section of the world having been recruited from throughout the United States and international sites to include Karachi, Belgrade, Zu Koln and Damascus to name but a few.

The VCUHS provides an active teaching faculty. It has extensive research laboratory facilities with access to virtually any type of equipment required for endocrine bench or clinical research. The Virginia Commonwealth University Medical Center is one of the leading academic medical centers in the country and stands alone as the most comprehensive academic medical center in Central Virginia. VCU Life Sciences has expanded the university’s large-scale life sciences research infrastructure by establishing and maintaining research centers, core facilities and consortia.

**Centers**

- Center for the Study of Biological Complexity
- Center for Environmental Studies
- Inger and Walter Rice Center for Environmental Life Sciences

**Core facilities**

- Bioinformatics Computational Core Laboratories
- Environmental Analyses Laboratory
- Environmental Technology Laboratory
- Mass Spectrometry Laboratory
- MicroArraying Suite
- Nucleic Acid Research Facility

**VCU Massey Cancer Center**

VCU Massey Cancer Center researchers and physician-scientists are affiliated with more than 25 academic departments at VCU. Massey’s hallmark activity is translational research. Clinical
trials are a natural extension of the research programs, offering patients access to the most up-to-date treatments for various types of cancer. The new 80,000-square-foot Goodwin Research Laboratory is equipped with state-of-the-art labs and clean rooms to support the next generation of research.

Core research programs

- Cancer cell biology
- Cancer prevention and control
- Immune mechanisms
- Radiation biology and oncology
- Structural biology and drug design

Clinical Research Studies Unit (CRSU)

Formerly known as the General Clinical Research Center, the CRSU is a major branch of the Center for Clinical and Translational Research supported by the Center for Clinical and Translational Research (CCTR) which is funded by CTSA award No. UL1TR000058 from the National Center for Advancing Translational Sciences. The CRSU operates as a highly specialized research hospital within a larger medical facility. The center is well suited for multidisciplinary clinical research as well as collaborative studies between institutions, supporting clinical investigation into the pathophysiology of human disease and the testing of new methods of diagnosis and treatment of disease.

Pediatric Endocrinology Service

The average patient census on the pediatric endocrine inpatient service is 3-5 patients. There are five full days of pediatric endocrine and diabetes clinics each week. The clinic houses
a two bed provocative testing unit for growth hormone provocative, adrenocorticotropic hormone (ACTH) stimulation testing, and glucose tolerance testing. The unit is staffed by two nurses, the patients are continuously monitored and the service includes phlebotomy.

VCUHS provides extensive pediatric support with two certified diabetes educators (one RN/CDE and one RD/CDE), a registered nurse case coordinator, two behavioral psychologists, and a phlebotomist. All are invaluable resources to assist the fellow in mastering the techniques of diabetes management as well as understanding and planning nutritional management of inborn errors of metabolism. In addition, VCUHS houses multiple pediatric sub-specialists including adolescent medicine, gastroenterology, hematology/oncology, cardiology, nephrology, neurology, child psychiatry, child psychology, and an active child-life program. They also have excellent surgical support personnel with a skilled pediatric surgeon, endocrine oncology surgeon, pediatric urology, pediatric ENT and pediatric neurosurgery.

Libraries

The VCU Libraries advance the academic success of students, faculty, staff, and health professionals at Virginia Commonwealth University through one of Virginia's most outstanding academic library systems. The James Branch Cabell Library on the Monroe Park Campus and the Tompkins-McCaw Library on the MCV Campus offer a print collection of over 1.9 million volumes and 16,790 periodical subscriptions, along with an extensive collection of digital indexes, full-text digital periodicals, and other digital materials, to support the academic work of the VCU community. Both libraries provide leading-edge Web-based services as well as exceptional instruction and individual reference consultation to help VCU research, teaching, and learning. With over 300 workstations within the two library facilities and powerful network-integrated systems, the VCU Libraries' collections and resources are available from any computer on the VCU campus and, with your VCU Card number, from anyplace in the world with
an Internet connection. The VCU Libraries maintain many affiliations with library and publishing organizations throughout the world to provide access to library materials not held at VCU. VCU Libraries is a founding member of the Association of Southeastern Research Libraries, the Scholarly Publishing and Academic Resources Coalition, and the Coalition for Network Information. It is also a resource library of the National Network of Libraries of Medicine and a member of the Virtual Library of Virginia (VIVA) and the Southeastern Library Network. Computer literature research facilities are in place in all areas of the VCUHS including nursing stations, libraries, conference rooms, and individual offices.

Pathology

The VCUHS houses complete clinical laboratories, radiology and nuclear medicine services and other ancillary support facilities. The Department of Pathology is a diverse clinical, research, and teaching department of the School of Medicine at VCUHS. They provide a full range of pathology services. Clinical pathology has 31 full-time Pathology faculty based at the MCV Campus and six additional faculty based at the Hunter Holmes McGuire Veterans' Affairs Hospital. They train 16 Residents and six Fellows in the pathology training program. Within the department, there are 14 clinical laboratories including Histopathology, Neuropathology, Cytopathology, Autopsy Pathology, Molecular Diagnostics, Cytogenetics, Hematology, Coagulation, Microbiology, Immunology, Clinical Chemistry, Toxicology, and Transfusion Medicine. The clinical laboratories are staffed by 285 full-time equivalent hospital employees. The labs will perform more than two million billable tests annually. The labs are certified by the Federal Government under the Clinical Laboratory Improvement Amendments of 1988 (CLIA), and are fully accredited by the College of American Pathologists and the American Association of Blood Banks. The quality of work is continuously monitored by extensive internal quality
control and participation in proficiency testing which is administered by multiple external agencies. Critical emergency services are available around the clock. Attending pathologists, resident physicians, and fellows are "on call" at all times for consultation. Clinical pathology scientists are supported by numerous research grants, primarily from NIH, with extramural funding in excess of $2 million in 2007. They host funded research programs in molecular diagnostics, liver disease, hepatobiliary cancer, infectious disease, prostate cancer, breast cancer, aging and conservation medicine. There is also a wide variety of clinical and applied research in all areas of pathology and laboratory medicine. The department offers formal courses in pathology to medical students, dental students and graduate students.

Radiology

The Department of Radiology is well grounded in the expertise of more than 40 faculty radiologists, many of whom are recognized both nationally and internationally. The clinical excellence is enhanced further by state-of-the-art equipment in all modalities, including breast imaging, CT, MRI, fluoroscopy, interventional radiology, nuclear medicine and sonography. In addition to traditional radiology services, the Department of Radiology offers many new and cutting-edge procedures, such as thoracic aortic stent grafts, venous ablation, uterine fibroid embolization, radioimmunotherapy, virtual colonography, cardiac MRI, coronary artery CT and breast MRI. Clinical excellence is complemented by major advances in technology. The Department and institution benefit from a state-of-the-art picture archiving and communication system (PACS) and a voice recognition dictation system that allow for images and reports to be distributed to more than 1,200 computers throughout the VCU Medical Center network immediately after acquisition. This allows referring physicians to access images in patient care areas, such as clinics, inpatient units and surgical suites, as soon as the images are acquired,
and have access to the reports immediately after the reports are dictated. Since its inception, the Department of Radiology has demonstrated a strong commitment to educational initiatives and the radiology and nuclear medicine residency program directors, Drs. Das Narla, Malcolm Sydnor and Paul Jolles, ensure that residents receive the most outstanding training available. The Department sponsors eight to ten fellowships each year in a variety of subspecialties, including MRI, Abdominal Imaging, Breast Imaging, Chest and Noninvasive Cardiovascular Imaging, Interventional Radiology, Musculoskeletal Radiology and Women’s Imaging.

The Department’s strength in research activities is supported by a team of seven full-time research scientists. The faculty continues to receive significant awards for funded research from the NIH and other sources. Ongoing clinical research focuses on utility of MRCP in biliary and pancreatic imaging, virtual colonography, development of breast shield for CT radiation protection and the application of CT in trauma.

The faculty research portfolio extends from basic research to clinical trials. Current projects include a five-year NIH basic research grant for the development of metallic nanoparticles, as well as an NIH grant for a phase one clinical trial of a new imaging agent for identification of tumor resistance.

Led by Melvin Fratkin, MD, the Department of Nuclear Medicine houses five full time faculty and a fully accredited residency training program. With the addition of the of a GE LS Discovery dedicated PET/CT scanner the department achieved state of the art oncology, cardiology and neurology imaging as well as participation in National PET research protocols. Including the facilities of the Molecular Imaging Center (MIC) in the Basement of the Gateway Building which houses the GE Advance PET scanner, PETrace cyclotron, microPET scanner
and the GE 3T MR, nuclear medicine at VCU is competitive with other top Universities in the field of Molecular Imaging.

**PRACTICE PROFILE:**

Data presented at the 1997 Pediatric Endocrinology Program Directors’s Meeting indicate that the average University based pediatric endocrinologist provides the following types of visits:

- diabetes: 37-39%
- growth: 27%
- thyroid: 13%
- puberty: 10-11%
- adrenal: 5-7%
- other (metabolic etc): 7%

The VCUHS Division of Pediatric Endocrinology and Metabolism is well aligned with this broad-based practice providing care to 800 children with DM, 309 with growth disorders, 441 with thyroid disorders, 455 with reproductive issues, 179 with abnormal function of the anterior pituitary and 253 with obesity along with a diverse array of multiple other problems.

**Components of Training Program**

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<thead>
<tr>
<th>Components of Training Program</th>
<th>1st Yr</th>
<th>2nd Year</th>
<th>3rd Year</th>
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<tbody>
<tr>
<td>1) Clinical training (blocks): (Inpatient / elective)</td>
<td>10</td>
<td>6</td>
<td>2</td>
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<tr>
<td>Research training (months):</td>
<td>1</td>
<td>6</td>
<td>10</td>
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<tr>
<td>RIA experience (duration):</td>
<td>0</td>
<td>0*</td>
<td></td>
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<tr>
<td>Outpatient Clinic (days/wk)</td>
<td>2</td>
<td>1 ½</td>
<td>1</td>
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Course work (duration):
Specify courses:
Biostatistics for physicians 1
Principal Investigator Research Course 1
Molecular Biology Short Course 1

Experience in weeks):
a) Tissue culture methods (describe): *No formal rotations.

Complete facilities and expertise are available and training and experience for fellow will be arranged as derived and/or needed for research projects.

b) Radioimmunoassay

c) Steroid analysis:*
d) Receptor analysis:*
e) Molecular biology:*

2) Night call responsibility:

There are no in-house calls.

During the first year, the fellow will have primary daytime responsibility during Monday - Friday. He/She responds to telephone contacts from patients and primary physicians and to initial evaluations of inpatient consults or problems. A member of the attending staff is immediately available for consultation and direct supervision. No in-house call is required.

During the second year, night call for pediatric endocrinology will be provided one week out of each month. No in-house call is required. However no call will be required during selective rotations in adult endocrinology, genetics, imaging, and nutrition.

During the third year, the fellow will provide night call for pediatric endocrinology one week-end out of each month. No in-house call is required. In addition, the fellow will spend two months “acting as an attending” for inpatients and consultations with staff attending backup as needed. During that month, the fellow is allowed freedom to round independently with the
housestaff and students and to direct the patient care team. The attending physician retains oversight and responsibility for all patient care and will round independently with the fellow in accordance with VCUHS guidelines. All patients will be examined by the attending who will monitor care plans and progress. The attending is readily available to the fellow should he/she have immediate questions or concerns. The fellow will be responsible during this month to provide all endocrine teaching of the ward teams (residents, students).

3) Number of clinical rounds per week: Daily rounds will be made on all inpatients and consults for the pediatric endocrine service by the fellow on clinical service. The attending will make rounds on all inpatients and consults with the fellow.

4) Conference per week (specify): The fellow will attend the weekly pediatric grand rounds at VCUHS, weekly endocrine journal club, adult endocrine grand rounds, pediatric endocrine teaching conferences and case conferences. The fellow will also attend monthly research conferences, quarterly CQI, and the combined thyroid / tumor / pathology conferences as scheduled.

5) Numbers and functions of house-officers and students rotating on service: Generally there is one house-officer or student rotating on the pediatric endocrine service. These individuals see patients in the clinic under the direct supervision of the attending staff. They participate in rounds on the inpatient service and attend all pediatric endocrine conferences. Fellows in the second and increasingly during the third year are encouraged to supervise students / residents and precept them with staff back-up.

Educational goals and objectives for Pediatric Endocrinology fellowship, plans formulated to achieve goals, and methods for evaluating attainment of stated goals are outlined in
DOCUMENTATION OF ANALYSIS

Performance evaluations will be documented on a regular basis utilizing the following methods:

Direct evaluation of competence on a daily basis by inpatient staff attending.

Direct evaluation on a daily basis by pediatric endocrine staff.

Monthly evaluation to be completed by attending for month.

Semi-annual formal written report and annual 360-evaluation report.

METHODS FOR CORRECTING IDENTIFIED DEFICIENCIES:

A. All trainees will receive verbal feedback at the mid-point and conclusion of each rotation as well as copies of their evaluations on a monthly basis.

B. In addition to being informed on a regular basis of their progress or lack of progress, recommendations will be made for correcting specific deficiencies at the time they are first observed.

C. Failure to meet the milestones expected during the course of training will result in counseling and guidance to remediate the observed deficiencies. If this is unsuccessful, the matter will be referred to the Committee on Graduate Medical Education for consideration of probationary status or other administrative action consistent with guidelines of the VCU Committee on Graduate Medical Education (see Handbook).

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<tr>
<th>Competency</th>
<th>Assessment Method(s)</th>
<th>Evaluator(s)</th>
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<tbody>
<tr>
<td>Patient Care</td>
<td>Review of written history and physical</td>
<td>Supervising attending</td>
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<tr>
<td>To attain proficiency in history taking and physical examinations as it relates to the endocrine system.</td>
<td>Review of case log book, clinical notes, journal club and presentations</td>
<td>Division Faculty</td>
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<tr>
<td>Competency</td>
<td>Assessment Method(s)</td>
<td>Evaluator(s)</td>
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<tr>
<td>physiology and pathophysiology.</td>
<td>at endocrine conference</td>
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<tr>
<td>To acquire a high degree of proficiency in patient evaluation in an outpatient setting</td>
<td>Monthly global evaluation during clinical rotations</td>
<td>Supervising attending</td>
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<td>To become expert in the use of the laboratory as an instrument of diagnosis, Intensive experience in the interpretation of endocrine tests, including sources of error.</td>
<td>Monthly global evaluation Review of medical records, consultations and teaching of core pediatric residents and students</td>
<td>Division Faculty</td>
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<td>To become a proficient and effective consultant in the area of endocrine and metabolic disease.</td>
<td>Review of consults, consult log book, feedback from VCU faculty in 360 evaluation</td>
<td>Program Director</td>
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<tr>
<td>Medical Knowledge</td>
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<tr>
<td>To command an in depth understanding of endocrine physiology and pathophysiology.</td>
<td>Review of case log book, clinical notes, journal club and presentations at endocrine conference, In-service training exam</td>
<td>Division Faculty</td>
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<tr>
<td>To become expert in the use of the laboratory as an instrument of diagnosis</td>
<td>Monthly global evaluation Review of medical records, consultations and teaching of core pediatric residents and students In-service training exam</td>
<td>Division Faculty</td>
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<td>To become proficient in critical review of the current literature as it pertains to patient care issues.</td>
<td>Journal club, endocrine core lectures, synthesis of this information in teaching residents and students</td>
<td>Program director</td>
</tr>
<tr>
<td>To become an effective educator and teacher.</td>
<td>Review and evaluation of didactic lectures with knowledge assessed by question and answer method, review of prepared Journal clubs, Assessment of teaching in board review course</td>
<td>Interaction with staff Annual In-Training Examination Written critique of lectures, and feed back from other department members.</td>
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<tr>
<td>Practice-based learning &amp; Improvement</td>
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<td>To develop life-long learning skills, personal reflection, and professional integrity that will facilitate error recognition, assessment, and remediation</td>
<td>To maintain patient logs, review with staff on a weekly basis, and develop plans for program improvement</td>
<td>Supervising attending CQI program and portfolio.</td>
</tr>
<tr>
<td>Interpersonal &amp; Communication Skills</td>
<td>Critical incident review observation by staff, peers and patients/parents Monthly global evaluation</td>
<td>Supervising attending Nursing, faculty, program director direct observations, patient surveys, peer feedback</td>
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<td>To communicate effectively with patients, parents, health care team members, and organizations</td>
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<tr>
<td>Professionalism</td>
<td>Monthly global evaluation Completion of medical records, procedure and case logs Conference attendance</td>
<td>Supervising attending Nursing, faculty, program director direct observations, patient surveys, peer feedback</td>
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<tr>
<td>To become responsible and selfless in patient care, accountable and reliable</td>
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<tr>
<td>To maintain high standards of moral and ethical behavior</td>
<td>Monthly global evaluation 360 evaluation Critical incident review</td>
<td>Direct observations of staff, peers, patients professionalism topic review</td>
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<tr>
<td>Systems-based Practice</td>
<td>Monthly global evaluation Participation at Interdisciplinary rounds Attendance at scheduled lectures, CQI programs and formal Conferences</td>
<td>Supervising attending Observations by staff, written attendance, and evaluation of yearly evaluation summary.</td>
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<tr>
<td>To become an effective medical provider at the VCUHS familiar with the operational platforms and the care of common endocrine conditions.</td>
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CLINICAL COMPETENCY COMMITTEE
OF THE FELLOWSHIP PROGRAM IN PEDIATRIC ENDOCRINOLOGY

FELLOW: __________________________________________

DATE: __________________________________________

CHAIR, CLINICAL COMPETENCY COMMITTEE: ________________

MEMBERS, CLINICAL COMPETENCY COMMITTEE:
________________________________________
________________________________________
________________________________________

RESEARCH MENTOR: _________________________________

TITLE OF RESEARCH PROPOSAL:
______________________________________________

______________________________________________

SUBMISSION THROUGH (AS APPROPRIATE)

HUMAN USE COMMITTEE: _____________________________
ANIMAL USE AND CARE COMMITTEE: __________________
OFFICE OF RESEARCH, VCUHS: ______________________

FUNDING SOURCE:
______________________________________________
______________________________________________
______________________________________________
**EVALUATION OF FELLOW DURING RESEARCH:**

**KNOWLEDGE OF CONCEPT, GOALS AND OBJECTIVES:**

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| 1 | Lacks basic knowledge of the concept | 2 | Can recite goals but little insight into importance | 3 | 4 | Thorough understanding of goals and objectives

**KNOWLEDGE OF RELEVANT LITERATURE:**

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| Lacks awareness of Key literature in Support of the Proposed work | Aware of general reviews of the topic, but lacks specific important Articles to support Key questions / techniques | 4 | 5 | Thorough knowledge of the supporting literature for the concept and the techniques

**AWARENESS OF SIGNIFICANCE OF STUDY:**

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| Lacks insight into reasons for The study | Limited ability to infer how the study might change Knowledge or Clinical Practice | 4 | 5 | Able to foresee in depth application of data to advance knowledge

**AWARENESS OF LIMITATIONS OF STUDY:**

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| Unable to see When the data Might not apply | Can recite some cases where data might not apply | 4 | 5 | Able to see when data might not apply and how the Study design or techniques used Could prevent use of Data for other cases

**KNOWLEDGE OF TECHNIQUES:**

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| Unable to describe How the tests were | able to describe how | 4 | 5 | able to describe how all tests and procedures
Performed some of the tests were done and when / how errors were made

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ABILITY TO INTERPRET DATA:

- able to describe how data were derived from raw measures
- able to list how data were derived
- able to demonstrate how data were obtained, calculated, and statistically analyzed

ABILITY TO FORMULATE ADDITIONAL QUESTIONS FROM THE STUDY:

- Unable to ask any Questions based on Results of this Study
- able to ask only basic recitation of the question to Another set of Similar patients
- asks highly inciteful questions of how this data might change the field

OVERALL PROGRESS:

- Inadequate progress to date unable to advance to next year level
- adequate progress able to advance in training
- excellent progress able to advance in training
FINAL EVALUATION: The undersigned members of the CLINICAL COMPETENCY COMMITTEE of the Fellowship program in Pediatric Endocrinology certify that in our opinion, the above named fellow has completed substantial work on the project as outlined, has documented knowledge of the proposal and procedures sufficient to allow us to determine that he/she had substantial input to the design, conduct, interpretation and evaluation of the work, and is fully worthy of receipt of first author credit for any publications that arise (have arisen) from this study.

Chair, CLINICAL COMPETENCY COMMITTEE: 

Members:


The Fellowship in Pediatric Endocrinology and Metabolism is committed to training Pediatric Endocrinologists who are aware of and embrace the interactive competencies involved in the complex profession of medicine. They are committed to life long learning, self reflection and continuous quality improvement. As part of that process, we require each fellow to perform a self-evaluation on a semi-annual basis using the milestones which have been developed for pediatrics but which apply equally well to sub-specialty practice. The fellow indicates his/her level of progress toward each milestone and then meets with the program director to review this information and receives documented feedback regarding performance. This semi-annual evaluation is then used to develop an individual educational plan to implement during the next 6-month cycle. We use the skills matrix to determine individual progress in selected pediatric endocrine procedures and to help identify specific case types that should be an educational focus for the next 6-month cycle.

**PC1. Provide transfer of care that ensures seamless transitions**

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<td>Demonstrates variability in transfer of information (content, accuracy, efficiency, and synthesis) from one patient to the next; makes frequent errors of both omission and commission in the hand-off</td>
<td>Uses a standard template for the information provided during the hand-off; is unable to deviate from that template to adapt to more complex situations; may have errors of omission or commission, particularly when clinical information is not synthesized; neither anticipates nor attends to the needs of the receiver of information</td>
<td>Adapts and applies a standardized template, relevant to individual contexts, reliably and reproducibly, with minimal errors of omission or commission; allows ample opportunity for clarification and questions; is beginning to anticipate potential issues for the transferee</td>
<td>Adapts and applies a standard template to increasingly complex situations in a broad variety of settings and disciplines; ensures open communication, whether in the receiver- or the provider-of-information role, through deliberative inquiry, including read-backs, repeat-backs (provider), and clarifying questions (receivers)</td>
<td>Adapts and applies the template without error and regardless of setting or complexity; internalizes the professional responsibility aspect of hand-off communication, as evidenced by formal and explicit sharing of the conditions of transfer (e.g., time and place) and communication of those conditions to patients, families, and other members of the health care team</td>
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### PC2. Make informed diagnostic and therapeutic decisions that result in optimal clinical judgment

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<td>Recalls and presents clinical facts in the history and physical in the order they were elicited without filtering, reorganization, or synthesis; demonstrates analytic reasoning through basic pathophysiology results in a list of all diagnoses considered rather than the development of working diagnostic considerations, making it difficult to develop a therapeutic plan.</td>
<td>Focuses on features of the clinical presentation, making a unifying diagnosis elusive and leading to a continual search for new diagnostic possibilities; largely uses analytic reasoning through basic pathophysiology in diagnostic and therapeutic reasoning; often reorganizes clinical facts in the history and physical examination to help decide on clarifying tests to order rather than to develop and prioritize a differential diagnosis, often resulting in a myriad of tests and therapies and unclear management plans, since there is no unifying diagnosis.</td>
<td>Abstracts and reorganizes elicited clinical findings in memory, using semantic qualifiers (such as paired opposites that are used to describe clinical information [e.g., acute and chronic]) to compare and contrast the diagnoses being considered when presenting or discussing a case; shows the emergence of pattern recognition in diagnostic and therapeutic reasoning that often results in a well-synthesized and organized assessment of the focused differential diagnosis and management plan.</td>
<td>Reorganizes and stores clinical information (illness and instance scripts) that lead to early directed diagnostic hypothesis testing with subsequent history, physical examination, and tests used to confirm this initial schema; demonstrates well-established pattern recognition that leads to the ability to identify discriminating features between similar patients and to avoid premature closure; Selects therapies that are focused and based on a unifying diagnosis, resulting in an effective and efficient diagnostic work-up and management plan tailored to address the individual patient.</td>
<td>Current literature does not distinguish between behaviors of proficient and expert practitioners. Expertise is not an expectation of GME training, as it requires deliberate practice over time.</td>
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<td>Develops and carries out management plans based on directives from others, either from the health care organization or the supervising physician; is unable to adjust plans based on individual patient differences or preferences; communication about the plan is unidirectional from the practitioner to the patient and family</td>
<td>Develops and carries out management plans based on one’s theoretical knowledge and/or directives from others; can adapt plans to the individual patient, but only within the framework of one’s own theoretical knowledge; is unable to focus on key information, so conclusions are often from arbitrary, poorly prioritized, and time-limited information gathering; develops management plans based on the framework of one’s own assumptions and values</td>
<td>Develops and carries out management plans based on both theoretical knowledge and some experience, especially in managing common problems; follows health care institution directives as a matter of habit and good practice rather than as an externally imposed sanction; is able to more effectively and efficiently focus on key information, but still may be limited by time and convenience; begins to incorporate patients’ assumptions and values into plans through more bidirectional communication</td>
<td>Develops and carries out management plans based most often on experience; effectively and efficiently focuses on key information to arrive at a plan; incorporates patients’ assumptions and values through bidirectional communication with little interference from personal biases</td>
<td>Develops and carries out management plans, even for complicated or rare situations, based primarily on experience that puts theoretical knowledge into context; rapidly focuses on key information to arrive at the plan and augments that with available information or seeks new information as needed; has insight into one’s own assumptions and values that allow one to filter them out and focus on the patient/family values in a bidirectional conversation about the management plan</td>
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**PC4. Provide appropriate role modeling**

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<td>Performs routine duties and behaviors of profession without awareness of the impact on those around him or her; may or may not reflect on actions as they occur (reflection in action) and does not share reflections with others.</td>
<td>Inconsistently aware of the impact of one’s behaviors and attitudes on others; sometimes teaches by example; occasionally will reflect openly on events as they occur (reflection in action) and privately on events that have already taken place (reflection on action).</td>
<td>Conscious of being a role model during many interactions; frequently teaches by example and often reflects in action openly in the presence of learners; behavior change implies frequent private reflection on action.</td>
<td>Conscious of being a role model during most interactions; routinely teaches by example; regularly reflects in action and frequently reflects on action, sharing this analysis of practice with learners.</td>
<td>Role modeling is a habit; recognizes that he or she is a role model in all actions and behaviors at all times; characteristically teaches by example; routinely reflects both in action and on action; examines, analyzes, and explains actions/behaviors in the presence of learners and colleagues.</td>
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**MK1. Locate, appraise, and assimilate evidence from scientific studies related to their patients’ health problems**

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<td>Explains basic principles of Evidence-based Medicine (EBM), but relevance is limited by lack of clinical exposure</td>
<td>Recognizes the importance of using current information to care for patients and responds to external prompts to do so; is able to formulate questions with some difficulty, but is not yet efficient with online searching; is starting to learn critical appraisal skills</td>
<td>Able to identify knowledge gaps as learning opportunities; makes an effort to ask answerable questions on a regular basis and is becoming increasingly able to do so; understands varying levels of evidence and can utilize advanced search methods; is able to critically appraise a topic by analyzing the major outcomes, however, may need guidance in understanding the subtleties of the evidence; begins to seek and apply evidence when needed, not just when assigned to do so</td>
<td>Is increasingly self-motivated to learn more, as exhibited by regularly formulating answerable questions; incorporates use of clinical evidence in rounds and teaches fellow learners; is quite capable with advanced searching; is able to critically appraise topics and does so regularly; shares findings with others to try to improve their abilities; practices EBM because of the benefit to the patient and the desire to learn more rather than in response to external prompts</td>
<td>Teaches critical appraisal of topics to others; strives for change at the organizational level as dictated by best current information; is able to easily formulate answerable clinical questions and does so with majority of patients as a habit; is able to effectively and efficiently search and access the literature; is seen by others as a role model for practicing EBM</td>
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**Not yet Assessable □**
**SBP1. Work effectively in various health care delivery settings and systems relevant to their clinical specialty**

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<td>With limited knowledge of systems, focuses on the “pieces” of a process rather than the whole; frequently frustrated by the system’s suboptimal processes, but lacks the ability to identify the root cause and thus to effect change.</td>
<td>Has developed knowledge of systems and therefore understands when others describe how the pieces relate to the whole; not yet able to articulate that relationship independently, and therefore develops work-arounds when faced with a systems challenge.</td>
<td>Competent in working in various systems and settings; therefore, able to apply knowledge, skills, and attitudes in systems thinking to systems’ problems within a given context; recognizes the need to change systems rather than develop work-arounds, and can activate the system to do so; however, does not apply learning from one setting or context to another.</td>
<td>Capable in systems thinking; therefore, has competence in systems thinking and can adapt learning from one system or setting to another; in this way, can effect or stimulate improvements in a system and does so when the need arises.</td>
<td>Capable, as defined in Level 4, and views improving systems of care as an integral component of professional identity; leads systems changes as part of the routine care delivery process.</td>
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### SBP2. Coordinate patient care within the health care system relevant to their clinical specialty

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<tr>
<td>Performs the role of medical decision-maker, developing care plans and setting goals of care independently; informs patient/family of the plan, but no written care plan is provided; makes referrals, and requests consultations and testing with little or no communication with team members or consultants; is not involved in the transition of care between settings (e.g., outpatient and inpatient, pediatric and adult); shows little or no recognition of social/educational/cultural issues affecting the patient/family.</td>
<td>Begins to involve the patient/family in setting care goals and some of the decisions involved in the care plan; a written care plan is occasionally made available to the patient/family; care plan does not address key issues; has variable communication with team members and consultants regarding referrals, consultations, and testing; answers patient/family questions regarding results and recommendations; may inconsistently be involved in the transition of care between settings (e.g., outpatient and inpatient, pediatric and adult); makes some assessment of social/educational/cultural issues affecting the patient/family and applies this in interactions.</td>
<td>Recognizes the responsibility to assist families in navigation of the complex health care system; frequently involves patient/family in decisions at all levels of care, setting goals, and defining care plans; frequently makes a written care plan available to the patient/family and to appropriately authorized members of the care team; care plan omits few key issues; has good communication with team members and consultants; consistently discusses results and recommendations with patient/family; is routinely involved in the transition of care between settings (e.g., outpatient and inpatient, pediatric and adult); considers social, educational and cultural issues in most care interactions.</td>
<td>Actively assists families in navigating the complex health care system; has open communication, facilitating trust in the patient-physician interaction; develops goals and makes decisions jointly with the patient/family (shared-decision-making); routinely makes a written care plan available to the patient/family and to appropriately authorized members of the care team; care plan omits few key issues; has good communication with team members and consultants; facilitates care through consultation, referral, testing, monitoring, and follow-up, helping the family to interpret and act on results/recommendations; coordinates seamless transitions of care between settings (e.g., outpatient and inpatient, pediatric and adult; mental and dental health; education; housing; food security; family-to-family support); builds partnerships that foster family-centered,</td>
<td>Current literature does not distinguish between behaviors of proficient and expert practitioners. Expertise is not an expectation of GME training, as it requires deliberate practice over time.</td>
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culturally-effective care, ensuring communication and collaboration along the continuum of care

Comments:

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### SBP3. Incorporate considerations of cost awareness and risk-benefit analysis in patient and/or population-based care as appropriate

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<td>Unaware of costs issues in evaluation and management of patients; has difficulty processing cost and risk-benefit information in a way that results in cost-containment actions or appropriate risk-benefit analysis; frustrated by cost containment efforts that are viewed as primarily externally mandated</td>
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<td><strong>Level 2</strong></td>
<td>Uses externally provided information (e.g., prescribing information, test ordering patterns, or research around a treatment) to inform cost-containing action and/or preliminary risk-benefit analysis; demonstrates inadequate skills in critical appraisal that may result in inappropriate cost containment activities and/or risk-benefit counseling</td>
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<td><strong>Level 3</strong></td>
<td>Critically appraises information available on an evaluation test or treatment to allow optimization of cost issues and risk-benefit for an individual patient; adopts strategies that decrease cost and risk and optimize benefits for individuals, with less attention to those outcomes for populations</td>
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<td><strong>Level 4</strong></td>
<td>Critically appraises information in the context of not only the individual patient, but also the broader population/system; ascribes value to cost and risk-benefit decisions based on this broad understanding of the information</td>
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<td><strong>Level 5</strong></td>
<td>Consistently integrates cost analysis into one’s practice while minimizing risk and optimizing benefits for whole systems or populations</td>
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**SBP4. Work in interprofessional teams to enhance patient safety and improve patient care quality**

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<td>Seeks answers and responds to authority from only intra-professional colleagues; does not recognize other members of the interdisciplinary team as being important or making significant contributions to the team; tends to dismiss input from other professionals aside from other physicians</td>
<td>Is beginning to have an understanding of the other professionals on the team, especially their unique knowledge base, and is open to their input, however, still acquiesces to physician authorities to resolve conflict and provide answers in the face of ambiguity; is not dismissive of other health care professionals, but is unlikely to seek out those individuals when confronted with ambiguous situations</td>
<td>Aware of the unique contributions (knowledge, skills, and attitudes) of other health care professionals, and seeks their input for appropriate issues, and as a result, is an excellent team player</td>
<td>Same as Level 3, but an individual at this stage understands the broader connectivity of the professions and their complementary nature; recognizes that quality patient care only occurs in the context of the interprofessional team; serves as a role model for others in interdisciplinary work and is an excellent team leader</td>
<td>Current literature does not distinguish between behaviors of proficient and expert practitioners. Expertise is not an expectation of GME training, as it requires deliberate practice over time</td>
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### SBP5. Participate in identifying system errors and implementing potential systems solutions

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<tr>
<td>Defensive or blaming when encountering medical error; no perception of personal responsibility for individual or systems error correction; not open to discussion of error or identification of the type of error; approaches error prevention from an individual case perspective only</td>
<td>Occasionally open to discussion of error without a defensive or blaming approach; some awareness of personal responsibility for individual or systems error correction; identifies medical error events, but cannot identify the type (active versus latent) of error; begins to perceive that error may be more than the mistake of an individual</td>
<td>Usually open to a discussion of error; actively identifies medical error events and seeks to determine the type of error; occasionally identifies the element of personal responsibility for individual or systems error correction; sees examination and analysis of error as an important part of the preventive process</td>
<td>Usually encourages open and safe discussion of error; actively identifies medical error events; accepts personal responsibility for individual or systems error correction, regularly determining the type of error and beginning to seek system causes of error</td>
<td>Consistently encourages open and safe discussion of error; characteristically identifies and analyzes error events, habitually approaching medical error with a system solution methodology; actively and routinely engaged with teams and processes through which systems are modified to prevent medical error</td>
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PBL1. Identify strengths, deficiencies, and limits in one’s knowledge and expertise

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<td>The learner acknowledges external assessments, but understanding of his performance is superficial and limited to the overall grade or bottom line; has little understanding of how the performance measure relates in a meaningful way to his specific level of Knowledge, Skills and Attitudes (KSA)</td>
<td>Assessment of performance is seen as being able to do or not do the task at hand without appreciation for how well it is done and whether there is a need to improve the outcome</td>
<td>Prompts for understanding specifics of level of performance are internal and may be identified in response to uncertainty, discomfort, or tension in completing clinical duties; evidence of this stage is demonstrated by active questioning and application of knowledge in developing a rationale for care plans or in teaching activities</td>
<td>Prompted by anticipation or contemplation of potential clinical problems, the learner self-identifies gaps in KSA through reflection that assesses current KSA versus understanding of underlying basic science or pathophysiologic principles to generate new questions about limitations or mastery of KSA; evidence of this stage can be determined by the advanced nature and level of questioning or resource seeking</td>
<td>Prompted by a self-directed goal of improving the professional self, the practitioner anticipates hypothetical clinical scenarios that build on current experience and systematically addresses identified gaps to enhance the level of KSA; elaborate questioning occurs to further explore gaps and strengths</td>
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PBLI2. Systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement

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<tr>
<td>Unable to gain insight from encounters due to a lack of reflection on practice; does not understand the principles of quality improvement methodology or change management; is defensive when faced with data on performance improvement opportunities within one’s practice</td>
<td>Able to gain insight from reflection on individual patient encounters, but potential improvements are limited by a lack of systematic improvement strategies and team approach; is dependent upon external prompts to define improvement opportunities at the population level</td>
<td>Able to gain insight for improvement opportunities from reflection on both individual patients and populations; grasps improvement methodologies enough to apply to populations; is still reliant on external prompts to inform and prioritize improvement opportunities at the population level</td>
<td>Able to use both individual encounters and population data to drive improvement using improvement methodology; analyzes one’s own data on a continuous basis, without reliance on external forces, to prioritize improvement efforts, and uses that analysis in an iterative process for improvement; is able to lead a team in improvement</td>
<td>In addition to demonstrating continuous improvement activities and appropriately utilizing quality improvement methodologies, thinks and acts systemically to try to use one’s own successes to benefit other practices, systems, or populations; is open to analysis that at times requires course correction to optimize improvement</td>
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PBLI3. Use information technology to optimize learning and care delivery

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<td>Reluctant to utilize information technology; generally does not initiate attempts to use information technology without mandatory assignments and direct help; demonstrates an inability to choose between multiple available databases for clinical query and an inability to filter or prioritize the information retrieved results in too much information, much of which is not useful; failure to achieve success may worsen perception of information technology ease of use, leading to resistance to adopting new technologies</td>
<td>Demonstrates a willingness to try new technology for patient care assignments or learning; able to identify and use several available databases, search engines, or other appropriate tools, resulting in a manageable volume of information, most of which is relevant to the clinical question; basic use of an EHR is improving, as evidenced by greater efficacy and efficiency in performing needed tasks; beginning to identify shortcuts to getting to the right information quickly, such as use of filters; also beginning to avoid shortcuts that lead one astray of the correct information or perpetuate incorrect information in the EHR</td>
<td>Efficiently retrieves (from EHR, databases, and other resources), manages, and utilizes biomedical information for solving problems and making decisions that are relevant to the care of patients and for ongoing learning</td>
<td>In addition to the capabilities in Level 3, the emotional investment in the outcome (improved patient care, deeper understanding, or successful resolution of a query) leads to the habit of utilizing familiar information technology resources and seeking new ones to answer clinical questions and remedy knowledge gaps identified in the course of patient care; utilizes the EHR platform to improve the care not only for individual patients but populations of patients; utilizes evidence-based (actuarial) decision support tools to continually supplement clinical experience</td>
<td>Along with the capabilities and behaviors in Level 4, the mental energy freed up by comfort level and experience with information technology systems is reinvested to contribute to the continuous improvement of current systems and the development and implementation of new information technology innovations for patient care and professional learning</td>
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Comments: □ □ □ □ □ □ □ □ □ □ □ □

Not yet Assessable □
Participate in the education of patients, families, students, residents, fellows, and other health professionals

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<thead>
<tr>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
<th>Level 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has gaps in knowledge and experience that result in a rigid, scripted type of patient education and counseling that may not meet the needs of the patient; Demonstrates doctor-centered interaction.</td>
<td>Is closing gaps in knowledge, allowing him or her to educate patients and families in a somewhat flexible way that begins to meet the needs of the patients; varies between doctor-centered and patient-centered depending upon the circumstances and the family dynamics; is responsive to patient's educational needs; is learning the importance of the concept of checking for patient understanding.</td>
<td>Has a solid breadth of both knowledge and experience, resulting in the ability to modify teaching to meet the needs of the individual patient; his or her educational efforts are typically patient-centered; is able to modify strategies to adapt to complex patient characteristics; checks for patient understanding inconsistently.</td>
<td>Demonstrates broad knowledge base and significant experience with a variety of disease processes and patient characteristics; facilitates the participation of patients in all discussions about their health; able to be quite flexible with strategies of educating patients; patient-centeredness is clearly a priority and a conscious effort; consistently checks for patient understanding; empowers and motivates patients.</td>
<td>Similar to Level 4 in terms of knowledge and flexibility; patient-centeredness is a habit; seamlessly, skillfully, and comfortably educates and interacts with patients in a way that satisfies the patients; demonstrates an uncanny ability to motivate and empower patients to make healthy changes and choices; does not leave the patient encounter without knowing that the patient understands the counseling.</td>
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Comments:

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Not yet Assessable ☐
PROF1. Professional Conduct: High standards of ethical behavior which includes maintaining appropriate professional boundaries

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<tr>
<th>Level 1</th>
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</thead>
<tbody>
<tr>
<td>Has repeated lapses in professional conduct wherein responsibility to patients, peers, and/or the program are not met. These lapses may be due to an apparent lack of insight about the professional role and expected behaviors or other conditions or causes (e.g., depression, substance use, poor health)</td>
<td>Under conditions of stress or fatigue, has documented lapses in professional conduct that lead others to remind, enforce, and resolve conflicts; may have some insight into behavior, but an inability to modify behavior when placed in stressful situations</td>
<td>In nearly all circumstances, conducts interactions with a professional mindset, sense of duty, and accountability; has insight into his or her own behavior, as well as likely triggers for professionalism lapses, and is able to use this information to remain professional</td>
<td>Demonstrates an in-depth understanding of professionalism that allows her to help other team members and colleagues with issues of professionalism; is able to identify potential triggers, and uses this information to prevent lapses in conduct as part of her duty to help others</td>
<td>Others look to this person as a model of professional conduct; has smooth interactions with patients, families, and peers; maintains high ethical standards across settings and circumstances; has excellent emotional intelligence about human behavior and insight into self, and uses this information to promote and engage in professional behavior as well as to prevent lapses in others and self</td>
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Not yet Assessable □
**PROF2. Trustworthiness that makes colleagues feel secure when one is responsible for the care of patients**

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<tr>
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<tbody>
<tr>
<td>Has significant knowledge gaps or is unaware of knowledge gaps and demonstrates lapses in data-gathering or in follow-through of assigned tasks; may misrepresent data (for a number of reasons) or omit important data, leaving others uncertain as to the nature of the learner’s truthfulness or awareness of the importance of attention to detail and accuracy; overt lack of truth-telling is assessed in a professionalism competency</td>
<td>Has a solid foundation in knowledge and skill, but is not always aware of or seeks help when confronted with limitations; demonstrates lapses in follow-up or follow-through with tasks, despite awareness of the importance of these tasks; follow-through can be partial, but limited due to inconsistency or yielding to barriers; when such barriers are experienced, no escalation occurs (such as notifying others or pursuing alternative solutions)</td>
<td>Has a solid foundation in knowledge and skill with realistic insight into limits with responsive help seeking; data-gathering is complete with consideration of anticipated patient care needs, and careful consideration of high-risk conditions first and foremost; requires little prompting for follow-up</td>
<td>Has a broad scope of knowledge and skill and assumes full responsibility for all aspects of patient care, anticipating problems and demonstrating vigilance in all aspects of management; pursues answers to questions, and communications include open, transparent expression of uncertainty and limits of knowledge</td>
<td>Same as Level 4, but any uncertainty brings about rigorous search for answers and conscientious and ongoing review of information to address the evolution of change; may seek the help of a master in addition to primary source literature</td>
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**Comments:**

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Not yet Assessable ☐
PROF3. Provide leadership skills that enhance team functioning, the learning environment, and/or the health care delivery system/environment with the ultimate intent of improving care of patients

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<tbody>
<tr>
<td>Does not define/clarify roles and expectations for team members; team management is disorganized and inefficient; interacts with supervisor(s) in an unfocused and indecisive manner; open communication is not encouraged within the team; team members are not given ownership or engaged in decision-making; manages by mandate; unable to advocate effectively for the team with faculty members, staff members, families, patients, and others</td>
<td>Interactions suggest that there are roles and expectations for team members, but these are not explicitly defined; manages the team in a somewhat organized manner; interacts with supervisor(s) in a somewhat focused, but poorly decisive manner; begins to encourage open communication within the team; sometimes engages team members in decision-making processes; manages most often through direction, with some effort towards consensus building; attempts to advocate for the team with faculty members, staff members, families, patients, and others</td>
<td>Provides some explicit definition to roles and expectations for team members; manages the team in an organized and fairly efficient manner; interactions with supervisor(s) are focused and decisive in most cases; open communication within the team is routinely encouraged; team members are routinely engaged in decision-making and are given some ownership in care; usually manages through consensus-building and empowerment of others, but sometimes reverts to being directive; advocates somewhat effectively for the team with faculty members, staff members, families, patients, and others</td>
<td>Routinely clarifies roles and expectations for team members; manages the team in an organized and fairly efficient manner; interactions with supervisor(s) are focused and decisive; creates a foundation of open communication within the team; team members routinely engage in decision-making and are expected to take ownership in care; consensus-building and empowerment are the norm; proactively and effectively advocates for the team with faculty members, staff members, families, patients, and others; inspires others to perform</td>
<td>Routinely clarifies roles and expectations for team members; team management is organized and efficient; interacts with supervisor(s) in a focused and decisive manner; creates a strong sense of open communication within the team; team members routinely engage in decision-making and are expected to take ownership in care; consensus-building and empowerment are the norm; proactively and effectively advocates for the team with faculty members, staff members, families, patients, and others; inspires others to perform</td>
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The capacity to accept that ambiguity is part of clinical medicine and to recognize the need for and to utilize appropriate resources in dealing with uncertainty

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| Feels overwhelmed and inadequate when faced with uncertainty or ambiguity; communications with patients/families and development of therapeutic plan are rigid and authoritarian, with assumption that the patient can manage information and participate in decision-making; patient/family numeracy presumed; seeks only self or self-available resources to manage response to this uncertainty, resulting in a response characterized by their (individual) preexisting state of risk aversion or risk taking; does not regard patient need for hope; feels compelled to make sure that patients understand full potential for negative outcome (defensive/protective of physician) | Recognizes uncertainty and feels tension/pressure from not knowing or knowing with limited control of outcomes; explains situation to the patient in framework most familiar to the physician, rather than framing it with terms, graphics, or analogies familiar to the patient; seeks rules and statistics and feels compelled to transfer all information to the patient immediately, regardless of patient readiness, patient goals, and patient ability to manage information | Anticipates and focuses on uncertainty, looking for resolution by seeking additional information; aims to inform the patient of the more optimal outcome(s), framed by physician goals; does not manage overall balance of patient/family uncertainty with quality of life, need for hope, and ability to adhere to therapeutic plan; focuses on own risk management position for a given problem and does not suggest that more or less risk taking (different from physician’s position) could be chosen; still seeks patient/parent recitation of uncertainty/morbidity as proof that patient/family understands the uncertainty; has an unresolved balance of expectations with physician expectations taking precedence | Anticipates that uncertainty at the time of diagnostic deliberation will be likely; uses such uncertainty or larger ambiguity as a prompt/motivation to seek information or understanding of unknown (to self or world); balances delivery of diagnosis with hope, information, and exploration of individual patient goals; works through concepts of risk versus hope using conceptual framework that includes cost (e.g., suffering, lifestyle changes, financial) versus benefit, framed by patient health care goals; expresses openness to patient position and patient uncertainty about his or her position and response | Is aware of and keeps own risk aversion or risk-taking position in check; seeks to understand patient/family goals for health and their capacity to achieve those goals, given the uncertain treatment options; engages in discussion with high sensitivity towards numeracy, emphasizing patient/family control of choices with initial plan development and ongoing information sharing through changes as knowledge and patient health status evolve; remains flexible and committed to engagement with the patient/family throughout the patient’s illness, serving as a resource to gather information so that degree of uncertainty is minimized; openly and comfortably discusses strategies and outcomes anticipated with the patient/family, emphasizing that all plans are subject to the imperfect knowledge and state of uncertainty; balances constant revisiting of
knowledge, uncertainty, and developed plans acceptance of what is unknown; transparent communication of limits of treatment plan outcomes

Comments:

Not yet Assessable
ICS1. Communicate effectively with physicians, other health professionals, and health-related agencies

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<tbody>
<tr>
<td>Demonstrates a rigid, rules-based recitation of facts; often communicates from a template or prompt; communication does not change based on context, audience, or situation; not aware of the social purpose of the communication</td>
<td>Begins to understand the purpose of the communication and at times adjusts length to context, as appropriate; however, will often still err on the side of inclusion of excess details</td>
<td>Successfully tailors communication strategy and message to the audience, purpose, and context in most situations; fully aware of the purpose of the communication; can efficiently tell a story and effectively make an argument; beginning to improvise in unfamiliar situations</td>
<td>Uses the appropriate strategy for communication; distills complex cases into succinct summaries tailored to audience, purpose, and context; can improvise and has expanded strategies for dealing with difficult communication scenarios (e.g., an inter-professional conflict)</td>
<td>Master of improvisation in any new or difficult communication scenario; recognized as a highly effective public speaker; intuitively develops strategies for tailoring message to context to gain maximum effect; is sought out as a role model for difficult conversations and mediator of disagreement</td>
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Not yet Assessable □
ICS2. Work effectively as a member or leader of a health care team or other professional group

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<tr>
<td>Limited participation in team discussion; passively follows the lead of others on the team; little initiative to interact with team members; more self-centered in approach to work with a focus on one's own performance; little awareness of one's own needs and abilities; limited acknowledgment of the contributions of others.</td>
<td>Demonstrates an understanding of the roles of various team members by interacting with appropriate team members to accomplish assignments; actively works to integrate herself into team function and meet or exceed the expectations of her given role; in general, works towards achieving team goals, but may put personal goals related to professional identity development (e.g., recognition) above pursuit of team goals.</td>
<td>Identifies him or herself and is seen by others as an integral part of the team; seeks to learn the individual capabilities of each fellow team member and will offer coaching and performance improvement as needed; will adapt and shift roles and responsibilities as needed to adjust to changes to achieve team goals; communication is bi-directional with verification of understanding of the message sent and the message received in all cases.</td>
<td>Initiates problem-solving, frequently provides feedback to other team members, and takes personal responsibility for the outcomes of the team's work; actively seek feedback and initiates adaptations to help the team function more effectively in changing environments; engages in a closed loop communication in all cases to ensure that the correct message is understood by all; seeks out and takes on leadership roles in areas of expertise and makes sure the job gets done.</td>
<td>Goals of the team supersede any personal goals, resulting in the ability to seamlessly assume the role of leader or follower, as needed; creates a high-functioning team de novo or joins a poorly functioning team and facilitates improvement, such that team goals are met.</td>
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Not yet Assessable  □
ICS3. Act in a consultative role to other physicians and health professionals

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<th>Level 5</th>
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<tbody>
<tr>
<td>Actively participates as a member of the consultation team and can accurately gather and present the patients’ history and physical findings, scribe recommendations, and document them in the medical record; lack of discipline-specific knowledge limits ability to focus the data gathering and presentation to those details relevant to the question asked.</td>
<td>Identifies self as a member of the consultation team; can accurately gather and present the patient’s history and physical findings with a focus on those details pertinent to the question asked; demonstrates increased discipline-specific knowledge and an ability to filter and prioritize information that lead to a more focused (although not comprehensive), differential, realistic working diagnosis; makes more specific recommendations; and more succinct documentation; takes more “ownership” of the patients’ outcomes during follow-up of initial recommendations</td>
<td>Identifies self as an integral member of the consultation team based on advanced knowledge and skills in specific areas tempered by recognition of limitations in others, leading to pursuit of new knowledge; independently assesses and confirms data; combination of past experience and ability to use information technology to seek new knowledge allows for recommendations that are consistent with best practice; develops good relationships with referring providers, but may not encourage the bidirectional feedback that makes the relationship truly collaborative.</td>
<td>Identifies self as an expert in his or her discipline based on advanced knowledge and vast experience that manifest as intuitive clinical reasoning that is succinctly communicated to answer the specific questions asked; this drives life-long learning behavior and clear communication of the strength of the evidence on which recommendations are based; develops and maintains a collaborative relationship with the referring providers that maximizes adherence to recommendations and supports continuous bidirectional feedback.</td>
<td>Identified by self and others as a master clinician who effectively and efficiently lends a practical wisdom to consultation; answers to all but the most difficult diagnostic dilemmas are intuitive, leaving most mental energy available for reinvestment in ongoing clinical, educational, and/or research contributions to the field.</td>
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Comments:

Not yet Assessable  □
### Entrustable Professional Activities for Pediatric Endocrine Fellows

<table>
<thead>
<tr>
<th>Categories</th>
<th>Evaluation tool</th>
<th>Goal for Competent</th>
<th>Goal for Expert</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Observation (DO)</td>
<td>DO = direct observation</td>
<td>Competent</td>
<td>Must be</td>
</tr>
<tr>
<td>Chart Review (CR)</td>
<td>CR = chart review</td>
<td>Competent plus</td>
<td>Competent plus</td>
</tr>
<tr>
<td>Didactic Exam (EX)</td>
<td>EX = didactic exam</td>
<td>DO of teaching</td>
<td>DO of teaching</td>
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<tr>
<td>Certificate (CTF)</td>
<td>CTF = certificate</td>
<td>360 evaluation</td>
<td>360 evaluation</td>
</tr>
<tr>
<td>Elective Rotation (ELE)</td>
<td>ELE = Elective Rotation</td>
<td>EX, ELE, CTF or as</td>
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<tr>
<td>Course (CSE)</td>
<td>CSE = Course</td>
<td>as</td>
<td>as</td>
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<td>stipulated</td>
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**Date Acquired Proficiency Level**

- **Novice**
- **Competent**
- **Expert**

### History and Physical

(Competency Domains = medical knowledge and clinical practice)

- Perform Endocrine Specific History
- Perform Endocrine Specific Physical Examination
- Perform Tanner staging of male
- Perform Tanner staging of female
- Perform neck palpation for goiter and/or thyroid nodules
- Perform Prader staging for genital ambiguity

### Laboratory Testing

(Competency Domains = medical knowledge and clinical practice)

- Identify limitations of immunometric assays
- Correctly interpret immunometric analyses of hormone levels
- Understand age-related Reference ranges for hormone results
• Understand gender-related Reference ranges for hormone results CR
• Understand pubertal stage-related Reference ranges for hormone results CR
• Understand diurnal rhythms and test results CR

Provocative Testing
(Competency Domains = medical knowledge and clinical practice)
• Perform and interpret GH Stimulation Test DO, CR
• Perform and interpret ACTH Stimulation Test DO, CR
• Perform and interpret Leuprolide Stimulation Test DO, CR
• Perform and interpret hCG Stimulation Test DO, CR
• Perform and interpret OGTT DO, CR
• Perform and interpret MMTT DO, CR
• Perform and interpret IVGTT DO, CR
• Perform and interpret Insulin Clamp DO, CR
• Perform and interpret water deprivation test DO, CR
• Perform and interpret Hypoglycemia Diagnostic Fast DO, CR
• Perform and interpret Glucagon Stimulation Test DO, CR

Imaging
(Competency Domains = medical knowledge and clinical practice)
• Read and interpret bone age radiograph DO, CR, ELE
• Interpret thyroid US DO, CR, ELE, CTF
• Perform thyroid US DO, CR, ELE, CTF
• Interpret bone mineral density DO, CR, ELE, CTF
• Interpret thyroid scan and uptake DO, CR, ELE
• Interpret radiograph for rickets DO, CR, ELE
• Interpret pituitary imaging (CT, MRI) DO, CR, ELE

Diabetes Education and Procedures
(Competency Domains = medical knowledge and clinical practice)
• Perform New Onset T1DM Education DO, CR, EX
• Perform New Onset T2DM Education DO, CR, EX
• Obtain Pump Settings and/or Download Information DO, CR
• Perform Intensive Insulin Therapy DO, CR
• Insert Insulin Pump Start DO
• Insert Infusion Set DO
• Insert CGMS DO
• Download CGMS DO
• Interpret CGMS DO, CR
• Perform DKA Management DO, CR
• Recognize and Treat Cerebral Edema DO, CR

Newborn Screening
(Competency Domains = medical knowledge and clinical practice)
• Interpret newborn thyroid tests DO, CR
• Initiate thyroid therapy DO, CR
• Interpret CAH screening DO, CR
• Manage newborn with salt wasting CAH DO, CR

Counseling
(Competency Domains = medical knowledge and clinical practice)
• Counsel family in management of
  Disorders of Sexual Differentiation DO
• Counsel family with imminent loss of life DO
• Counsel family with transgender patient DO
Hormone Therapy
(Competency Domains = medical knowledge and clinical practice)
- Diagnose and Manage GH Deficiency  DO, CR
- Diagnose and Manage Hypothyroidism  DO, CR
- Diagnose and Manage Hyperthyroidism  DO, CR
- Diagnose and Manage Hypogonadism  DO, CR
- Diagnose and Manage Turner Syndrome  DO, CR
- Diagnose and Manage Precocious Puberty  DO, CR
- Diagnose and Manage CAH  DO, CR
- Diagnose and Manage Cushing’s  DO, CR, ELE
- Diagnose and Manage Pheochromocytoma  DO, CR
- Diagnose and Manage Prolactinoma  DO, CR, ELE
- Diagnose and Manage Diabetes Insipidus  DO, CR
- Diagnose and Manage SIADH  DO, CR
- Diagnose and Manage Rickets  DO, CR
- Diagnose and Manage Hypoglycemia  DO, CR

Bone
(Competency Domains = medical knowledge and clinical practice)
- Diagnose and Manage osteoporosis  DO, CR, ELE
- Diagnose and Manage Osteogenesis Imperfecta  DO, CR, ELE

Ethics
(Competency Domains = clinical practice, professionalism)
- Ethical consideration for patient care  DO, CR
- Ethical treatment of research subjects  DO, EX
- Ethical treatment of experimental animals  DO, EX
Consultation
(Competency Domains = medical knowledge, clinical practice, system based practice, professionalism)

- Manage telephone triage of patient calls    DO
- Manage consultation with referring providers  DO
- Manage hand-over of patient care            DO
- Manage escalation of patient care          DO

Education and Teaching
(Competency Domains = medical knowledge, professionalism, self-directed learning)

- Lectures                                      DO
- Small group didactic teaching                DO
- In-Training examination                       EX
# Dreyfus Levels of Professional Development of Knowledge and Performance

**NEEDS IMPROVEMENT**
- Did not show sufficient evidence of skill or progress

**NOVICE**
- Identifies and uses rules of thumb (typical PL-1)

**ADVANCED BEGINNER**
- Connects rules to the common aspects of the plan (adv PL-1 or PL-2)

**COMPETENT**
- Is able to plan an approach and execute the plan (PL-2 or PL-3)
- Efficient use of time/resources; Learns from prior experiences; Can modify their responses in a situation (PL-3)

**PROFICIENT**
- Efficient use of time/resources; Learns from prior experiences; Can modify their responses in a situation (PL-3)

## Patient Care

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<thead>
<tr>
<th></th>
<th>NEEDS IMPROVEMENT</th>
<th>NOVICE</th>
<th>ADV BEGINNER</th>
<th>COMPETENT</th>
<th>PROFICIENT</th>
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</thead>
<tbody>
<tr>
<td>History and PE skills</td>
<td>1</td>
<td>2</td>
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<tr>
<td>Procedure skills</td>
<td>1</td>
<td>2</td>
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<tr>
<td>Diagnostic and Therapeutic Decision Making</td>
<td>1</td>
<td>2</td>
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<td>4</td>
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<tr>
<td>Organizational Skills</td>
<td>1</td>
<td>2</td>
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<tr>
<td>Function under Stress</td>
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## Medical Knowledge

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<tr>
<th>Knowledge of:</th>
<th>NEEDS IMPROVEMENT</th>
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<th>COMPETENT</th>
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<tbody>
<tr>
<td>Disease Process</td>
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<tr>
<td>Pathophysiology</td>
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<tr>
<td>Diagnosis</td>
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<td>Treatment</td>
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## Pursuit of Knowledge

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<td>1</td>
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## Practice-Based Learning

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<th>COMPETENT</th>
<th>PROFICIENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performs Self-Evaluation</td>
<td>1</td>
<td>2</td>
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<tr>
<td>Response to Feedback</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td>Uses Information</td>
<td>1</td>
<td>2</td>
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## Interpersonal and Communication Skills

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<th>NOVICE</th>
<th>ADV BEGINNER</th>
<th>COMPETENT</th>
<th>PROFICIENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relationship with patients and families</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Education and counseling skills</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Chartwork</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Teamwork and collaboration</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Leadership</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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</tbody>
</table>

## Professionalism

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<thead>
<tr>
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<th>NEEDS IMPROVEMENT</th>
<th>NOVICE</th>
<th>ADV BEGINNER</th>
<th>COMPETENT</th>
<th>PROFICIENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Honesty, Integrity, Reliability, Respectful</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Self-Awareness, Self-Improvement</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

## Systems-Based Practice

<table>
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<tr>
<th></th>
<th>NEEDS IMPROVEMENT</th>
<th>NOVICE</th>
<th>ADV BEGINNER</th>
<th>COMPETENT</th>
<th>PROFICIENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accesses/Mobilizes Resources (SW, PT, etc)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Seeks to improve Systems of Care</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>
COMMENTS

Professionalism (Reliability, Responsibility, Teamwork, Demeanor and Comportment):

Reporter (Interviewing, Physical Exam, Written work, Oral presentations):
For upper level residents: Speaking with Consultants

Interpreter (Interpreting data including Hx, PE, Labs, Differential diagnosis)
For upper level residents: Problem Prioritization

Manager (Management of individual patients, Basic procedures, Diagnostic plans):
For upper level residents: Management of a medical team, Benefit/Risk decision making

Educator (Teaches self and patients):
For upper level residents: Teaches peers and staff, Demonstrates critical reading skills
Individual Learning Plan

This evaluation was reviewed by the Fellow and Program Director on date: ________________

The following areas of excellence were identified:

______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

The following areas that need improvement were identified:

______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

Signed:

Fellow: _________________________________________

Program Director: _______________________________
REPORT OF FINAL EVALUATION OF CLINICAL COMPETENCE FOR CERTIFYING EXAMINATION IN PEDIATRICS

Summary Description

Dr. __________ began his / her training on _____ and completed his / her training on ____. This subspecialty resident was continuously evaluated from the beginning of the program up to and including the final 6 months of training. Training was / was not completed in a satisfactory manner. The overall performance of Dr. __________ was best characterized as outstanding / good / adequate / marginal.

Dr. ______ had the following outstanding performance:

________________________________________________________________________Dr. ______ had the following problems:

________________________________________________________________________

In my opinion as Program Director of the VCU Fellowship Program in Pediatric Endocrinology, Dr. ________ is / is not fully competent and able to sit for the certifying examination in Pediatric Endocrinology and is fully capable of the independent practice of Pediatric Endocrinology

Gary L. Francis, MD, PhD; Director, Pediatric Endocrinology date: ________________
NAME: «»
SOCIAL SECURITY NUMBER: «»

This is a verification of training form completed by the fellowship program director at the conclusion of the former fellow’s training. The contents of this document are provided with the permission of the above named physician and should not be released to any other party without the consent of that physician.

I. Verification of Training:
   - Dr. «» successfully completed fellowship training in Pediatric Endocrinology at VCUHS.

II. Disciplinary Action:
   - During the dates of fellowship training at this institution, Dr. «» was not subject to any institutional disciplinary action.

III. Professional Liability:
   - To the best of our knowledge, Dr. «» was not investigated by any governmental or other legal body and was not the defendant in any malpractice suit during fellowship training.
   - To the best of our knowledge, Dr. «» had no signs of behavior, drug, or alcohol problems during fellowship training.

IV. Ability to Practice Medicine:
   - To the best of our knowledge, no conditions exist that would impair Dr. «»’s ability to practice Pediatric Endocrinology.

V. Rotations/Procedures Requested:
   - Dr. «» completed the following rotations to satisfy his/her pediatric fellowship training.

<table>
<thead>
<tr>
<th>Month(s)</th>
<th>Rotations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>See summary attached</td>
</tr>
</tbody>
</table>

   | Electives|
   | See attached summary |

See attached Rotation Summary Report.

   - At the conclusion of Dr. «»’s Pediatric Endocrinology fellowship training, he/she was judged capable of performing the following procedures independently:

   - Enter appropriate procedures by subspecialty
   - Other _X_See attached procedure Report __Entrustable Professional Activities_____
See attached Procedures Report.

VI. **Evaluation:** The following is derived from a composite of multiple evaluations by supervisors during this physician’s fellowship training. The evaluation is based upon the Accreditation Council for Graduate Medical Education (ACGME)’s six core competencies, which define the essential components of clinical competence.

<table>
<thead>
<tr>
<th></th>
<th>Unsatisfactory</th>
<th>Satisfactory</th>
<th>Superior</th>
<th>No Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical Knowledge</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patient Care</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professionalism</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Communication and Interpersonal Skills</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Practice-Based Learning and Improvement**</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Systems-Based Practice ***</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

** Practice-Based Learning involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, and improvements in patient care.

*** Systems-Based Practice is present when an awareness of and responsiveness to the larger context and system of health care is demonstrated with the ability to effectively call on system resources to provide care that is of optimal value.

VII. **Comments:**

Dr was evaluated every month during fellowship and this final evaluation includes the final month of training. is one of the most dedicated, knowledgeable, capable, professional, and personable physicians with whom I have had the pleasure to work. She always attends to her patients with empathy and compassion. She provides timely and complete follow up of all examinations, procedures and tests. She is highly skilled at all aspects of endocrine practice. She demonstrates dedication to continual learning, practice improvement and professional development. She has excelled in research and published seminal work on. She also completed outstanding basic science work on. I am honored to provide the highest level of endorsement and support for Dr.. I have certified that she is prepared to take the Subspecialty Certification Board Examination in Pediatric Endocrinology.

VIII. **Recommendation:**

Dr. « » is able to competently and independently practice Pediatric Endocrinology and has demonstrated sufficient competence to enter practice without direct supervision.

______________________________________________ _6/10/14_____________
Pediatric Endocrinology Program Director, MD   Date

IX. **Confirmation of Review and Verification of Training:**

Fellow:

☐ I have reviewed this evaluation with the program director or designee. I understand that this form, in most cases, will be utilized as the confidential verification and reference form in lieu of other forms when requests for verification of fellowship training and/or reference are received by VCUHS.

______________________________________________ _6/10/14_____________
Date

Program Director:

“I attest that the foregoing information supplied is true in every respect.”

______________________________________________ _6/10/14_____________
Pediatric Endocrinology Fellowship Program Director Signature   Date

Gary Francis, MD, PhD

______________________________________________ _6/10/14_____________
Pediatric Endocrinology Fellowship Program Director Name (typed or printed)   Date
Potential Applicants Interested in Fellowship Training in Pediatric Endocrinology and Metabolism at the Virginia Commonwealth University in Richmond, VA should contact the Program Director for more specific information, updates on ACGME Approval, the Application Process, Application Deadline and to arrange a personal visit and interview.

Please call or write:

Gary L. Francis, MD, PhD, CDE
Professor and Chair
Division of Pediatric Endocrinology and Metabolism
Virginia Commonwealth University
Department of Pediatrics
Medical College of Virginia
PO BOX 980140
Richmond, VA 23298
Phone (804) 527-4709
FAX (804) 527-4728
Email: glfrancis@vcu.edu
POLICIES and PROCEDURES

Policy for Eligibility and Selection
Policy for The Assessment, Promotion, Discipline and Dismissal of Residents
Policy for Grievance
Policy for Supervision
Policy for Clinical Competency Committee
Policy for Duty Hours
Policy for Leave
Policy for Moonlighting

Guidelines for the circumstances and events which necessitate notification of the responsible faculty
Policy for Eligibility and Selection

Fellowship in Pediatric Endocrinology and Metabolism

at Virginia Commonwealth University

It shall be the policy of the Fellowship in Pediatric Endocrinology and Metabolism to adhere to the guidelines, policies and procedures outlined by the Accreditation Council for Graduate Medical Education, the Policy on Supervision of the Department of Graduate Medical Education and the Department of Pediatrics at the Virginia Commonwealth University and Children’s Hospital of Richmond.

Purpose

To establish eligibility and selection criteria for residents (including interns and fellows) of the VCU Health System in order to ensure an optimal postgraduate educational experience and excellent patient care.

Policy

The VCU Health System is a participating member of the National Resident Matching Program, Dental National Matching Service, and other advanced residency matching programs. Residents selected through these matching programs, outside these matching programs, or selected for specialties that do not conduct matching programs, will meet the eligibility and selection criteria outlined below. Applicants must meet the following requirements in order to be considered for a residency position at VCU Health System:

1. Medical or Dental Degree: Applicant must be one of the following:
   a. Graduate of a medical school in the United States (US) or Canada accredited by the Liaison Committee on Medical Education (LCME).
   b. Graduate of a college of osteopathic medicine in the US accredited by the
American Osteopathic Association (AOA).

c. Graduate of a medical school outside the US or Canada approved for listing by
the World Health Organization or equivalent accrediting body and possessing a
currently valid certificate from the Educational Commission for Foreign Medical
Graduates (ECFMG).

d. Graduate of a medical school outside the US who has completed a Fifth
Pathway program provided by an LCME-accredited medical school.

e. Graduate of a US dental school approved by the Commission on Dental
Accreditation (CODA).

2. Minimum criteria for the specialty

a. All applicants for the residency program must meet minimum eligibility
requirements as established by the ACGME, AOA, ABMS, CODA or other
accrediting body for the specialty.

b. Applicants will not be considered for post-graduate education if they will not
meet criteria for board certification upon program completion (if board
certification is available)

3. Certifying Examinations (for medical residents)

a. All applicants for a residency program at the PGY1 level must have passed
Step 1 and taken Step 2 CK and CS of the United States Medical Licensing
Exam (USMLE) or the National Board of Osteopathic Medical Examiners
(NBOME/COMLEX).
b. Prior to their first day of employment as a PGY1, all residents must have passed Steps 1 and 2 CK and CS of the USMLE or NBOME.

c. All applicants for a residency program at the PGY2 level must have passed Steps 1 and 2 CK and CS of the USMLE or NBOME.

d. All applicants for a residency program at the PGY3 level or higher must have passed Steps 1, 2 CK and CS, and 3 of the USMLE or NBOME.

e. For applicants who have taken licensing exams in the past, VCU Health System also accepts passing scores on FLEX, NBDE, NBME, NBOME/COMLEX or the FMGEMS.

f. For consideration of exceptions, see Procedure #7 below.

4. Letters of Reference

a. All applicants must have three letters of reference from US or Canadian physicians/dentists who have personal knowledge of the applicant’s clinical abilities and personal characteristics.

5. Recent Patient Care Experience

a. All applicants must be within 4 years of graduation from Medical or Dental School or direct patient care activity (either as an independent practitioner or as a trainee).
b. All applicants must have documentation of a minimum of three months of direct patient care activity in the US or Canada within the last four years. Clinical rotations during medical or dental school will suffice for US and Canadian students. For international medical graduates, US or Canadian medical school clinical rotations or externships of direct patient care in the US or Canada will suffice. Clinical observer experiences, and non-clinical graduate work such as research do not meet this requirement. In selected circumstances, the VCU Health System may waive this requirement. Procedure #7 (below) describes the process required for this to occur.

6. Language skills

a. All applicants must have sufficient written and spoken English language skills required for safe and effective patient care, and effective participation in training and educational activities.

7. Visa Requirements (if appropriate)

a. Only J1 Visas are accepted for medical residency positions at the VCU Health System. In selected circumstances, the VCU Health System will sponsor individuals for an H-1B visa. Please see Procedure #7 below. Dental residents can complete their training on a TN visa, H-1B visa, or under the F1 practical training allowance (maximum one year).

8. Employability Requirements

a. Applicants must have one of the following:
i. US citizenship.

ii. Valid US resident alien card (green card).

iii. Valid passport, valid 1-94 card and J-1 visa sponsorship from the ECFMG or other visa as approved.


9. Paperwork Requirements

a. Applicants must submit, at a minimum, all required documents for ERAS (Electronic Residency Application Service) and the appropriate residency program matching system. If outside a matching system, or if a match does not apply, the following documents must be submitted prior to selection

i. VCU Health System Resident Application

ii. Satisfactory personal/professional letters of reference (3) noted above

iii. Dean’s letter sent from school for recent graduates (within 4 years of graduation)

iv. Official Medical school/Dental school transcript (photocopy is not sufficient)

v. Scores from licensing examinations

vi. Signed release of information

vii. Acknowledgement of pre-employment drug screening

viii. Acknowledgement of fingerprint/background checks

Procedures

1. Each residency-training program must have a written policy on resident eligibility and selection as per ACGME or ADA standards. Programs may establish additional criteria
for resident selection above and beyond that required by this policy. Written standards and criteria, appropriate to the specialty, should guide resident selection.

2. Eligible applicants will be considered based on their preparedness, ability, aptitude, academic credentials, communication and interpersonal skills, and personal qualities such as professionalism, motivation and integrity.

3. For each program, the selection of residents should be the responsibility of a committee of the faculty which has the opportunity to review application materials, rate residents against published selection standards, and agree as a group on those residents to be selected, either through the match or otherwise. Such decisions should ordinarily not be those of an individual program director. The committee may include current residents if desired.

4. Programs must select from eligible applicants and not discriminate on the basis of sex, race, age, religion, color, sexual orientation, national origin, disability or veteran status.

5. VCU residents will be allowed to transfer to another program within the institution one time. This request should be made by the program director wishing to accept the transferring resident. Additional transfer requests will not be allowed unless approved via the process described in Procedure #7 below.

6. The program director for each training program is responsible for ensuring adherence to this policy.

7. Petitions for exceptions to this policy must be submitted in writing by the program director to the Director of Graduate Medical Education. The petition should include substantiation that the requested exception will enhance the educational quality of the
program. The Director of Graduate Medical Education will respond to the petition within 10 workdays of receipt. If denied, the program director may appeal this decision by submitting a written request to the chairman of the GME Committee to have the decision reviewed at the next regularly scheduled meeting of that body, or via electronic mail in advance of the next regularly scheduled meeting. The Program Director and the Director of Graduate Medical Education should be present at the meeting to present relevant information regarding the appeal and to answer pertinent questions. The GME Committee will then make a final decision regarding the applicant by majority vote of those members present.

8. Enrollment of non-eligible residents may be a cause for withdrawal of accreditation of the involved program.

Gary L. Francis, MD, PhD, CDE
Director, Fellowship in Pediatric Endocrinology and Metabolism
Virginia Commonwealth University
It shall be the policy of the Fellowship in Pediatric Endocrinology and Metabolism to adhere to the guidelines, policies and procedures outlined by the Accreditation Council for Graduate Medical Education, the Policy on The Assessment, Promotion, Discipline and Dismissal of Residents of the Department of Graduate Medical Education and the Department of Pediatrics at the Virginia Commonwealth University and Children’s Hospital of Richmond.

I. BACKGROUND

The responsibility for judging the competence and professionalism of residents in medical, dental, and psychology graduate education programs rests principally with department chairs and program directors. These educators are guided in their judgment of resident performance by the Accreditation Council for Graduate Medical Education (ACGME) and its Residency Review Committees, the American Dental Association Council on Dental Education or the Committee on Accreditation of the American Psychological Association, by certifying and licensing Boards, by ethical standards for their specialties and the medical and dental professions, and by applicable policies of Virginia Commonwealth University and the Medical College of Virginia Hospitals. Residents are graduate (medical, dental or psychology) students and their relationship with the Institution is an education and training relationship. Residents are compensated as employees of the Medical College of Virginia Hospitals, the teaching hospital of Virginia Commonwealth University, but the resident’s employment relationship with the Medical College of Virginia Hospital is derivative of and dependent upon the resident’s continued enrollment as a graduate (medical, dental or psychology) student of the University.

The following policies and procedures for the Assessment, Promotion, Discipline and Dismissal of Residents in Graduate Medical Education (hereinafter Assessment Policy) apply to all residents enrolled in graduate
medical, dental, and clinical psychology education programs at the Virginia Commonwealth University and Virginia Commonwealth University Health Systems. The Assessment Policy governs the qualification of residents to remain in training as well as their completion of residency certification requirements, and its provisions apply in all instances in which such qualification and/or certification is at issue.

II. RESIDENCY PROGRAM ASSESSMENT STRUCTURE AND PLAN

The program director for each residency program has primary responsibility for monitoring the competence and professionalism of program residents, for recommending promotion and certification, and for initial counseling, probation or other remedial or adverse action. Residents will be evaluated on individual specialty requirements, program requirements, and compliance with University and Hospital policies. A faculty education committee may assist the program director in these functions. Where circumstances warrant, the membership of an education committee may be altered to avoid a potential conflict of interest, or to protect the privacy of the resident. The chair of a department may exercise the option to become a member of the education committee or to serve as the final departmental decision-maker in response to the committee or program director’s recommendations. Each program’s assessment structure and plan must be in writing.

III. PERFORMANCE REVIEWS

Each department must provide written summary performance reviews to residents at regular intervals, preferably in person. The ACGME Residency Review Committee for each specialty usually specifies the desirable frequency of such reviews. At a minimum, a semi-annual, written summary performance review must be provided to each resident in all programs. It is recommended that a review of the resident’s experience and competence in performing clinical procedures be included in these summaries when appropriate. Summary performance reviews may be written by program directors, designated faculty members, or members of a program’s education committee consistent with the assessment plan of the program. It is also recommended that the resident acknowledge receipt of each summary performance review in writing.

IV. PROMOTION

Those residents judged by a program to have satisfactorily completed the requirements for a specific level of training will be promoted to the next higher level of responsibility unless the resident is enrolled in a training
track of limited duration, not designed to achieve full certification (e.g., a one-year preliminary position). Except for shared residency positions, no resident may remain at the same level of training for more than 24 months, exclusive of leave. A resident whose performance is judged to be satisfactory will advance until the completion of the program/certification requirements.

It is the expectation that individuals entering graduate medical education programs will be promoted. However, the program has the right to refuse to offer a contract renewal for the next academic year to residents. Residents commencing their post graduate medical education in 2009 and beyond must pass Step 3 of the USMLE or NBOME in order to be promoted to the PGY 3 level.

In instances where a resident’s agreement is not going to be renewed, the VCU Health System requires that GME programs provide the resident(s) with a written notice of intent not to renew a resident’s agreement no later than four months prior to the end of the resident’s current agreement. However, if the primary reason(s) for the non-renewal occurs within the four months prior to the end of the agreement, the VCU Health System requires that its ACGME-accredited programs provide the resident(s) with as much written notice of the intent not to renew as the circumstances will reasonably allow, prior to the end of the agreement.

Resident(s) are allowed to implement the institution’s GME appeals process (described below) if they receive written notice of intent not to renew their agreements.

V. DISCIPLINE/DISMISSAL FOR ACADEMIC REASONS

A. Grounds

As students, residents/fellows are required to maintain satisfactory academic performance. Academic performance that is below satisfactory is grounds for discipline and/or dismissal. Below satisfactory academic performance is defined as a failed rotation; relevant exam scores below program requirements; and/or marginal or unsatisfactory performance, as evidenced by faculty evaluations, in the areas of clinical diagnosis and judgment, medical knowledge, technical abilities, interpretation of data, patient management, communication skills, interactions with patients and other healthcare professionals, professional appearance and demeanor, and/or motivation and initiative.

B. Procedures

Before dismissing or not renewing the contract of a resident/fellow for academic reasons, the program must
give the resident/fellow:

1. Notice of performance deficiencies
2. An opportunity to remedy the deficiencies; and
3. Notice of the possibility of dismissal or non-renewal if the deficiencies are not corrected.

Residents disciplined and/or dismissed for academic reasons may appeal the action via the GME Appeals process described in Section IX (below).

VI. Discipline/Dismissal for Non-Academic Reasons

A. Grounds

Grounds for discipline and/or dismissal of a resident/fellow for non-academic reasons include, but are not limited to, the following:

1. Failure to comply with the bylaws, policies, rules, or regulations of the University and the Health System, affiliated hospitals, medical staff, department, or with the terms and conditions of this document.
2. Commission by the resident/fellow of an offense under federal, state, or local laws or ordinances which impacts upon the abilities of the resident/fellow to appropriately perform his/her normal duties in the residency program.
3. Conduct, which violates professional and/or ethical standards; disrupts the operations of the University, its departments, or affiliated hospitals; or disregards the rights or welfare of patients, visitors, or hospital/clinical staff.

B. Procedures

Prior to the imposition of any discipline for non-academic reasons, the resident shall be afforded:

a. Clear and actual notice by the appropriate University or hospital representative of charges that may result in discipline, including where appropriate, the identification of persons who have made allegations against the resident/fellow and the specific nature of the allegations; and,

b. An opportunity for the resident/fellow to appear in person to respond to the allegations.

It is preferable that this notification be in writing. On occasion, it may be done verbally. Verbal notification must
be followed by written notification within three business days.

Residents disciplined and/or dismissed for non-academic reasons may appeal the action via the GME Appeals process described in Section IX (below).

VII. PROBATION
A. Initial Probation: The program director must document counseling of a resident who is not performing at an adequate level of competence, demonstrates unprofessional or unethical behavior, engages in misconduct, or otherwise fails to fulfill the responsibilities of the program in which he/she is enrolled. If the resident does not demonstrate sufficient improvement following counseling (as defined by the program director or education committee), then the resident may be placed on probation. The program director may place the resident on probation without prior counseling if the lack of competence or behavior is sufficiently severe. The purpose of probation is to give the resident specific notice of performance deficiencies and an opportunity to correct those deficiencies. Depending on the resident’s performance during probation, the possible outcomes of the probationary period are: removal from probation with a return to good academic standing; continued probation with new or remaining deficiencies cited; non-promotion to the next training level with further probationary training required; contract non-renewal; or dismissal.

The resident must be informed in person of probation decisions and must be provided with a probation document that includes the following

1. A statement of the grounds for probation, including identified deficiencies or problem behaviors;
2. The duration of probation which, ordinarily, will be at least three months;
3. A plan for remediation and criteria by which successful remediation will be judged;
4. Notice that failure to meet the conditions of probation could result in extended probation, additional training time, and/or suspension or dismissal from the program during or at the conclusion of the probationary period, and
5. Written acknowledgment by the resident of the receipt of the probation document
B. Extended Probation: The status of a resident on probation should be evaluated periodically, preferably every three months, but at a minimum, every six months. If, at the end of the initial period of probation, the resident’s performance remains unsatisfactory, probation either may be extended in accordance with the above guidelines (VII.A.1-5) or the resident may be suspended or dismissed from the program. Probationary actions must be reported to the Graduate Medical Education (GME) Office, and probation documents must be forwarded to the GME Office for review before they are issued.

VIII. SUSPENSION AND DISMISSAL

A. Suspension and Dismissal: A resident may be suspended from clinical activities by his or her program director, department chair, or by the faculty director of the clinical area to which the resident is assigned. This action may be taken in any situation in which continuation of clinical activities by the resident is deemed potentially detrimental or threatening to patient safety or the quality of patient care. Unless otherwise directed, a resident suspended from clinical activities may participate in other program activities. A decision involving suspension of clinical activities of a resident must be reviewed within three working days by the department chair (or his or her designee) to determine if the resident may return to clinical activities, and/or whether further actions is warranted (including, but not limited to, counseling, probation, fitness for duty evaluation, or summary dismissal).

B. Program Suspension: A resident may be suspended from all program activities and duties by his or her program director, department chair, the Associate Dean for Clinical Activities or Graduate Medical Education, or the Dean of the School of Medicine or Dentistry. Program suspension may be imposed for conduct that is deemed to be grossly unprofessional, incompetent, erratic, potentially criminal, or threatening to the well-being of patients, staff, or the resident. A decision involving program suspension of a resident must be reviewed within three working days by the department chair (or his or her designee) to determine if the resident may return to some or all program activities and duties and/or whether further action is warranted (including, but not
limited to, counseling, probation, fitness for duty evaluation, or summary dismissal).

C. Dismissal During or at the Conclusion of Probation: Probationary status in a residency program constitutes notification to the resident that dismissal from the program can occur at anytime (i.e., during or at the conclusion of probation). Dismissal prior to the conclusion of a probationary period may occur if conduct, which gave rise to probation, is repeated or if grounds for Program Suspension or Summary Dismissal exist. Dismissal at the end of a probationary period may occur if the resident's performance remains unsatisfactory or for any of the foregoing reasons. The GME office must be notified prior to the dismissal of any resident during or at the conclusion of a probationary period.

D. Summary Dismissal: For serious acts of incompetence, impairment, or unprofessional behavior, a department chair may immediately suspend a resident from all program activities and duties for a minimum of three days and, concurrently, issue a notice of dismissal effective at the end of the suspension period. The resident does not need to be on probation, nor at the end of a probationary period, for this action to be taken. The resident must be notified in writing of the reason for suspension and dismissal, have an opportunity to respond to the action before the dismissal is effective and be given a copy of the GME Appeals Process. The GME office must be notified of the dismissal plan.

IX. GME APPEALS PROCESS

In the event a resident is not promoted, is dismissed from a program, or is the subject of any adverse action that is reported to the State Board of Medicine or Dentistry or a relevant specialty board, the resident may appeal such non-promotion, dismissal, or adverse action as follows:

A. Departmental Appeal: A resident may initiate a departmental appeal by submitting a written notice of appeal to the program director (with a copy to the GME office) within ten (10) working days of the date of the
appealable action (hereinafter ‘adverse action’). A faculty committee will hear the department review, which ordinarily will be the same faculty committee, which initiated the adverse action. If a faculty committee did not initiate the adverse action, the chair will appoint a departmental review committee. A departmental review hearing will be held within thirty (30) days following receipt of the notice of appeal. The resident may select a faculty advocate to appear and participate on the resident’s behalf at the hearing. It is the responsibility of the resident to secure the participation of the faculty advisor. Prior to the hearing, the resident must notify the program director of the number of witnesses (if any) the resident expects to call and whether the resident will be accompanied by a faculty advocate and/or legal counsel. At the departmental review hearing, the program director (or his or her designee) will present a statement in support of the adverse action and may present any relevant records, witnesses, or other evidence. The resident will have the right to present evidence, call and questions witnesses, and make statements in defense of his or her own position. Legal counsel may be present on behalf of the resident and the department but counsel will not be permitted to participate in the proceeding. A record of the hearing will be kept by a court stenographer. After presentation of evidence and arguments by both sides, the departmental reviews committee will meet in closed session to consider the adverse action. The committee may uphold or reject the adverse action or may impose alternative action that may be more or less severe than the initial action. The committee’s decision must be submitted to the resident within ten (10) working dates of the close of the hearing.

B. Appeal to the Associate Dean for Graduate Medical Education: If the adverse action is upheld by the departmental review committee, or if the committee recommends alternative action that still is not acceptable to the resident, the resident may appeal the departmental committee’s decision by submitting a notice of appeal to the Associate Dean for Graduate Medical Education within ten (10) working days of the departmental committee’s decision. A written appeal must be delivered to the Associate Dean within ten (10) working days of receipt of the notification of the action of the Departmental Appeals Committee. The resident must state as clearly and as fully as possible the reasons for seeking modification of the decision. The Associate Dean will review the resident’s training file, evidence presented during the departmental appeals hearing, and any other relevant materials. The Associate Dean’s responsibilities are to:
1. Determine whether applicable university, school, department, and/or hospital policies were fairly and appropriately applied; and

2. Determine whether there is sufficient evidence to support the adverse action or other action recommended by departmental appeals committee. The Associate Dean may uphold or reject the adverse action, may uphold or reject other action recommended by the departmental appeals committee, or may recommend to the Dean and the department chair that another course of action be pursued to include return of the case to the departmental committee for further consideration. The Associate Dean’s decision will be submitted to the resident within thirty (30) working days of the notice of appeal.

C. Appeal to the Dean: Either the resident or the department chair may, within ten (10) working days of the decision by the Associate Dean, appeal the decision of the Associate Dean to the Dean of the Medical School or School of Dentistry (or their respective designee) by written notice to the GME Office. The GME Office will notify the appropriate Dean (or designee) who will appoint an Appeals Committee composed of faculty members from other departments. The Appeals Committee will review the record submitted to it by the GME Office and may consider any other written material or oral testimony it deems relevant. The Appeals Committee will submit a written recommendation regarding the matter to the Dean within fifteen (15) working days of the closure of the Committee’s review. The Dean will review the recommendation of the Appeals Committee and accept or reject it within ten (10) working days. The Dean’s decision is final within Virginia Commonwealth University.

X. OTHER CONSIDERATIONS

External rules, regulations or law governs mandatory reporting of problematic behavior or performance to licensing agencies or professional boards. The fact that such a report is made is not a matter which may give rise to the appeal process, only the adverse action as specified by Section VII of this document is appealable. Where mandatory reporting of problematic behavior or performance occurs, external agencies will be notified of the status of any internal appeal regarding the matter reported and its outcome. Residents should be aware that participation in the GME Appeals Process does not preclude investigation or action on the part of external
entities.

The stipend of the resident shall be continued until the termination date of the resident's contract or the expiration of the appeals process that results in the dismissal of the resident, whichever occurs first.

Gary L. Francis, MD, PhD, CDE
Director, Fellowship in Pediatric Endocrinology and Metabolism
Virginia Commonwealth University
Policy for Grievance

Fellowship in Pediatric Endocrinology and Metabolism

at Virginia Commonwealth University

It shall be the policy of the Fellowship in Pediatric Endocrinology and Metabolism to adhere to the guidelines, policies and procedures outlined by the Accreditation Council for Graduate Medical Education, the Policy on Grievance of the Department of Graduate Medical Education and the Department of Pediatrics at the Virginia Commonwealth University and Children’s Hospital of Richmond.

I. Purpose

To provide a mechanism for resolving disputes and complaints which may arise between postgraduate residents and fellows and their program director or other faculty member.

II. Policy

Postgraduate residents or fellows may appeal disagreements, disputes, or conflicts with their program using the procedure outlined below. This grievance procedure does not cover controversies or complaints arising out of (1) termination of a resident/fellow during an annual contract period; (2) alleged discrimination; (3) sexual harassment; (4) salary or benefit issues.

III. Definitions

A. Grievance: any unresolved dispute or complaint a resident or fellow has with the policies or procedures of the Residency Training Program or any unresolved dispute or complaint with his or her Program Director or other faculty member.
IV. Procedure

A. Informal Resolution - Step I:
A good faith effort will be made by an aggrieved resident/fellow and the Program Director to resolve a grievance at an informal level. This begins with the aggrieved resident/fellow notifying the Program Director, in writing, of the grievance. This notification must occur within 15 calendar days of the event precipitating the grievance and should include all pertinent information and evidence that supports the grievance. Within seven (7) calendar days after notice of the grievance is given to the Program Director, the resident/fellow and the Program Director will set a mutually convenient time to discuss the complaint and attempt to reach a solution. Step I of the informal process of the grievance procedure will be deemed complete when the Program Director informs the aggrieved resident/fellow in writing of the final decision. A copy of the Program Director’s final decision will be sent to the Department Chair and to the Director of Graduate Medical Education.

B. Informal Resolution - Step II
If the Program Director’s final written decision is not acceptable to the aggrieved resident/fellow, the resident/fellow may choose to proceed to a second informal resolution step which will begin with the aggrieved resident/fellow notifying the Department Chairman of the grievance in writing. Such notification must occur within 10 work-days of receipt of the Program Director’s final decision. This notification should include all pertinent information, including a copy of the Program Director’s final written decision, and evidence that supports the grievance. Within seven (7) calendar days of receipt of the grievance, the resident/fellow and the Department Chairman will set a mutually convenient time to discuss the complaint and attempt to reach a solution. Step two of the informal process of this grievance procedure will be deemed complete when the Department Chairman informs the aggrieved resident/fellow in writing of the final decision. Copies of this decision will be kept on file in the Chairman’s office and sent to the Director of Graduate Medical Education.

C. Formal Resolution
If the resident/fellow disagrees with the Department Chairman’s final decision, he or she may pursue formal resolution of the grievance. The aggrieved resident/fellow must initiate the formal resolution process by presenting their grievance, in writing, along with copies of the final written decisions from the Program Director
and Department Chairman and any other pertinent information, to the office of the Associate Dean of Graduate Medical Education within fifteen days of receipt of Department Chairman's final written decision. Failure to submit the grievance in the fifteen-day time frame will result in the resident/fellow waiving his or her right to proceed further with this procedure. In this situation, the decision of the Department Chairman will be final. Upon timely receipt of the written grievance, the Associate Dean of Graduate Medical Education will appoint a Grievance Committee and will contact the aggrieved resident/fellow to set a mutually convenient time to meet. The Grievance Committee will review and carefully consider all material presented by the affected parties at the scheduled meeting, following the protocol outlined in Section E. The Grievance Committee will provide the resident/fellow with a written decision within five days of the meeting and a copy will be placed on file in the Graduate Medical Education Office. The decision of the Grievance Committee will be final.

D. The Grievance Committee

Upon request for a formal resolution, the Associate Dean of GME will form a Grievance Committee composed of two Housestaff Council members, two Program Directors, and the Assistant Director of the GME office. No members of this committee will be from the resident’s/fellow’s own department. The Associate Dean of GME will choose a member to be the chair of the committee.

E. Grievance Committee Procedure

1. Attendance: All committee members should be present throughout the hearing. The resident/fellow must personally appear at the Grievance Committee meeting.

2. Conduct of Hearing: The chair will preside over the hearing, determine procedure, assure there is reasonable opportunity to present relevant oral or written information, and maintain decorum. The Chair will determine if information is relevant to the hearing and should be presented or excluded. The chair is
authorized to exclude or remove any person who is disruptive.

3. Recesses and Adjournment: The committee chair may recess and reconvene the hearing. Upon conclusion of the presentation of oral and written information, the hearing record is closed. The Grievance Committee will deliberate outside the presence of the involved parties.

4. Decisions: Decisions are determined by a majority of members of the Committee and are final. After deliberation, the decision will be reviewed and signed by the Committee members.

5. Meeting Record: A secretary/transcriptionist may be present for the purpose of recording the meeting minutes. Minutes and the final written decision of the Committee will be placed on file in the GME office.

V. Confidentiality

All participants in the grievance are expected to maintain confidentiality of the grievance process by not discussing the matter under review with any third party except as may be required for purposes of the grievance procedures.

Gary L. Francis, MD, PhD, CDE
Director, Fellowship in Pediatric Endocrinology and Metabolism
Virginia Commonwealth University
Policy for Supervision

Fellowship in Pediatric Endocrinology and Metabolism
at Virginia Commonwealth University

1. It shall be the policy of the Fellowship in Pediatric Endocrinology and Metabolism to adhere to the guidelines, policies and procedures outlined by the Accreditation Council for Graduate Medical Education, the Policy on Supervision of the Department of Graduate Medical Education and the Department of Pediatrics at the Virginia Commonwealth University and Children’s Hospital of Richmond.

2. The Medical College of Virginia of Virginia Commonwealth University Health System and the Children’s Hospital of Richmond of the Virginia Commonwealth University Health System subscribe to the philosophy that the most effective learning environment for post-graduate medical trainees is one that allows sufficient freedom for housestaff to share responsibility for decision making in patient care, and yet provides adequate and appropriate faculty supervision and involvement in order to provide feedback to trainees about their actions, and to address the quality and safety of the care rendered to patients. In order to preserve this type of learning environment for its teaching programs, the Institution advocates the following principles as elements of its policy on housestaff education and supervision:

1. Housestaff, working under the authority and supervision of attending faculty, are regarded as the primary coordinators of care for all patients admitted to the teaching inpatient services, emergency rooms, and clinics, and, as such, are responsible for the writing of orders, for the maintenance of records, and for the execution of diagnostic, therapeutic, and discharge plans.

2. Depending on their level of training, it is appropriate and essential that junior housestaff be supervised by more senior housestaff in accordance with Accreditation Council for Graduate Medical Education (ACGME) requirements (see below) and training program and site-specific guidelines.
3. All spheres of housestaff activity will be supervised by attending faculty members who share responsibility with house officers for patient care rendered, and who have ultimate authority for final decision-making. The structure of housestaff-attending interactions and the form that faculty supervision of housestaff takes will vary according to site and type of patient care setting and will be developed by the training programs.

3. The Fellowship in Pediatric Endocrinology and Metabolism provides both inpatient and outpatient learning environments for the fellow. The structure and intensity of supervision differ in these two environments yet both allow the fellow to grow in his/her level of proficiency throughout the training program and provide opportunity for the fellow to supervise and teach more junior trainees at all levels.

4. In the outpatient environment, the fellow evaluates and treats patients in the scheduled pediatric endocrine clinics, his/her continuity clinic, the emergency department, and consultation with other providers from a variety of primary care and specialty clinics.

5. In the inpatient environment, the fellow evaluates and treats or recommends treatment for inpatients on the general pediatric service, the PICU, the NICU, and a variety of other locations depending on the primary specialty involved (surgery patients for example may be in a number of different locations).

6. It is the Policy of this Program to provide supervision by qualified faculty to the fellow in all of these locations. The degree of supervision is most intense during the beginning of training and will be relaxed as the fellow acquires skills adequate to assume a more robust role in patient management. Nevertheless, at no time will the fellow be unsupervised by the faculty who retain the final responsibility for all decisions or actions relative to patient care.

7. The faculty provide both direct supervision (direct one-on-one observation of all phases of the patient encounter) and indirect supervision (in the clinic or ward with the trainee but not present in the room during the entire evaluation. However, the attending after listening to the fellow’s presentation, personally obtains
pertinent history from the patient/parent and performs critical parts of the physical exam and then discusses these findings with the fellow). The level of supervision is based on the certification of skills acquired by the fellow as (s)he progresses through training (Number 8 below).

8. The Fellowship in Pediatric Endocrinology and Metabolism has compiled a list of critical skills that must be mastered during fellowship training (See Appendix A). We have determined that Fellows just entering training are in the “Novice” category for all these skills. By direct observation of the fellow by the faculty and review of medical records along with indirect supervision, each fellow is promoted from “Novice” to “Competent” and finally to “Expert” based upon serial evaluations of their performance every 6 months. It is clear that the tempo of progress in some areas will be quite robust and that a fellow could achieve mastery and “Expert” classification in one area within a few months while it might take years to acquire mastery and “Expert” classification in a more rarified area of endocrinology. This will vary depending on the skills of the fellow as well as the degree of exposure to each individual area. For example, type 1 diabetes (T1DM) is very common in our practice where we manage over 1000 patients with T1DM. It is expected that the fellow could acquire “Expert” classification within a few months. Conversely, disorders of sexual differentiation (DSD) are rare disorders that might arise only once or twice during a fellowship. For that reason, it might take the fellow 2-3 years to become “Expert” in that skill. Furthermore, some specific skills require Certification from an accrediting body (for example, Certification in Thyroid Ultrasound is granted only after completion of the Thyroid Ultrasound Certification Course and Exam sponsored by the American Association of Clinical Endocrinologists).

9. Based on this system, it is easy to determine the ability of each individual fellow to operate under indirect supervision and the ability of each individual fellow to teach junior trainees. According to this system, a “Novice” will be directly observed by faculty as (s)he performs a skill until such time as (s)he is deemed “Competent”. At that level, (s)he will be expected to perform that specific skill with indirect supervision and will also be expected to teach students, categorical pediatric residents and “Novice” fellows about that particular skill. Once the fellow acquires the “Expert” classification, it is expected that (s)he will be able to function with minimal indirect supervision in this particularly area and will be expected to teach students, categorical
residents, “Novice” and “Competent” fellows.

10. Finally, each fellow will be evaluated by the program director at the conclusion of training and based on the global acquisition of skills will be determined as “Competent to practice the Field of Pediatric Endocrinology and to be seated for the Certification Board Examination in Pediatric Endocrinology” or “Not Competent to practice the Field of Pediatric Endocrinology and to be seated for the Certification Board Examination in Pediatric Endocrinology.

Gary L. Francis, MD, PhD, CDE
Director, Fellowship in Pediatric Endocrinology and Metabolism
Virginia Commonwealth University
Policy for Clinical Competency Committee

Fellowship in Pediatric Endocrinology and Metabolism
at Virginia Commonwealth University

1. It shall be the policy of the Fellowship in Pediatric Endocrinology and Metabolism to adhere to the guidelines, policies and procedures outlined by the Accreditation Council for Graduate Medical Education, the Policy on Supervision of the Department of Graduate Medical Education and the Department of Pediatrics at the Virginia Commonwealth University and Children’s Hospital of Richmond.

2. Each fellow in the program will have a designated Clinical Competency Committee whose function will be to provide oversight and guidance to the entire fellowship process. The committee will meet on a regular basis (semi-annual) as well as an ad hoc basis if more rapid intervention is required (educational or behavioral issues).

3. Membership will include a minimum of three faculty from the fellowship program, one or more research mentors (as appropriate for the types of research conducted by the fellow) and a member from outside the division of pediatric endocrinology. Due to the small size of the program, an individual faculty member may serve several roles on the committee (ie Dr Wickham may serve as both clinical mentor and member from outside the division or basic scientists may serve as both research mentor and member from outside the division).

4. The committee will review all evaluations of the fellow, 360 evaluations, presentations, didactic course grades, procedures and patient logs, research productivity, grants, abstracts and publications to ensure adequate preparation and training. In addition, the committee will review all in-training examination and board certification test scores to ensure adequate progress of the fellow and to ensure adequate coverage of all topics by the fellowship curriculum.

5. Documentation of committee activities will be maintained in the trainee folder.
6. The Clinical Competency Committee will prepare any required reports or referral to the Graduate Education Committee in the event remediation is required.

Gary L. Francis, MD, PhD, CDE

Director, Fellowship in Pediatric Endocrinology and Metabolism

Virginia Commonwealth University
Policy for Duty Hours
Fellowship in Pediatric Endocrinology and Metabolism
at Virginia Commonwealth University

It shall be the policy of the Fellowship in Pediatric Endocrinology and Metabolism to adhere to the guidelines, policies and procedures outlined by the Accreditation Council for Graduate Medical Education, the Policy on Duty Hours of the Department of Graduate Medical Education and the Department of Pediatrics at the Virginia Commonwealth University and Children’s Hospital of Richmond.

Policy
The Office of Graduate Medical Education shall require all ACGME and non-ACGME residency and fellowship programs to participate in the documentation of duty hours in New Innovations, to ensure graduate medical trainees are not being placed at risk for fatigue, and to document compliance with each program’s individual Residency Review Committee (RRC) and the Accreditation Council for Graduate Medical Education (ACGME) regulations.

Definition
Duty hours are defined as all clinical and academic activities required for the residency program; i.e., patient care (direct patient care: both inpatient and outpatient), administrative duties relative to patient care, the provision for transfer of patient care; time spent in-house during call activities, and scheduled activities such as required conferences. Duty hours do not include reading and preparation time spent away from the duty site. Duty hours restrictions are based upon the ACGME Duty Hour rules as found in the Common Program Requirements on the ACGME website: http://www.acgme.org/acWebsite/home/home.asp
Procedure

1. Faculty and residents must be educated to recognize the signs of fatigue and sleep deprivation and must adopt and apply policies to prevent and counteract its potential negative effects on patient care and learning.

2. The Institution mandates that all graduate medical programs comply with their individual RRC regulations regarding duty hours restrictions.


4. The Institution does not allow exceptions to the 80 hour weekly limit on duty hours.

5. The GMEC has established a Subcommittee on Resident Work Life. The Subcommittee will consist of program directors, administrators, and graduate medical trainees. It will be the responsibility of this Subcommittee to review the tracking reports and determine sufficient programmatic compliance. The Subcommittee, with assistance from the Graduate Medical Education Office, will compile and track additional information related to duty hours for each program (including RRC surveys, internal reviews, routine New Innovations (NI) logging audits, and off-service trainees’ violations, etc.) in order to establish an initial baseline of duty hours violations for each program from which to gauge individual progress toward eliminating violations.

6. Duty Hour Logging and Monitoring

a. Per RRC Common Program Requirements, the program director must administer and maintain an
educational environment conducive to educating the residents in each of the ACGME competency areas. The program director must:

i. implement policies and procedures consistent with the institutional and program requirements for resident duty hours and the working environment, including moonlighting, and, to that end, must monitor resident duty hours, according to sponsoring institutional policies, with a frequency sufficient to ensure compliance with ACGME requirements;

ii. adjust schedules as necessary to mitigate excessive service demands and/or fatigue; and,

iii. if applicable, monitor the demands of at-home call and adjust schedules as necessary to mitigate excessive service demands and/or fatigue.

b. Because of the intricacies of New Innovations (NI) and individual RRC mandates regarding duty hours, it will be the responsibility of the Program Directors and his/her staff to determine which exceptions reported in New Innovations represent true violations and to follow up on those accordingly. It is the expectation that programs will monitor duty hours, and collect data on trends and systems-based causes on a schedule sufficient to ensure compliance.

c. Program Directors will complete and submit a duty hours tracking report to the GMEC Subcommittee on Duty Hours Compliance on the following schedule:

i. Programs at high risk for violations will complete one survey for each of the months in the 2nd and 4th academic quarters. (October 1 – December 31 and April 1 – June 30). The forms for October – December will be due to the GMEO
by the second Friday in January. The forms for April – June will be due to the
GMEO the second Friday in July. High risk is defined as having any risk for duty
hour violations, or the presence of any of the following: true duty hour violations
recorded in New Innovations, including those of off-service residents, an RRC
citation or concern, an Internal Review concern, or any ACGME/RRC
Anonymous Survey generating non-compliance responses on duty hour related
questions, GME Office exit survey, or call to the 827 -LIFE.

ii. Programs at low risk for violations will complete one survey for the one month
period of their choosing and will submit to the GMEC the second Friday after the
end of that rotation. Low risk is having no risk of true duty hour violations and
absence of any of the additional measures noted above to designate high risk.

d. While Programs may initially select their own reporting status per above,
determinations about a program’s classification into either high or low risk status will ultimately rest with the
GMEC Subcommittee on Resident Work Life. Any of the aforementioned qualifying events (RRC citation,
Internal Review concern,
anonymous incident tip reporting line, ACGME survey results, etc.) will result in
Subcommittee review and possible change in reporting status.

e. The Resident Work Life SubCommittee will report any recommended action or follow up to the full GME
Committee. A Program Director may be asked to provide additional information and/or clarification. If programs
cannot achieve compliance easily by schedule alteration, a more detailed compliance plan may be requested.

f. In the event of failure to comply with either tracking, monitoring or proposing
solutions to violations, the Program Director and/or Department Chair may be asked to present to either the
Subcommittee or full GME Committee.
g. Additionally, programs must ensure the following:

i. Graduate Medical Trainees must be responsible for recording their own hours in New Innovations or Kronos.

ii. Any graduate medical trainee who rotates to another service (host program) must be in compliance with the host program’s RRC duty hours requirements.

Programs must be responsible for providing sufficient orientation on any program-specific duty hours requirements to all off-service residents. Both the home program and the host program must monitor that trainee’s duty hours for compliance.

iii. Any trainee participating in any rotations at the Richmond VA or any other affiliated institution must log all duty hours for those rotations.

iv. Trainees engaged in any moonlighting activities must log ALL duty hours for the primary rotation they are on during that time period in addition to logging the hours they spend moonlighting (See also Policy on Moonlighting). Time spent by trainees in any form of moonlighting must be counted towards the 80 hr maximum weekly duty hour limit. There is a 24 hour limit to moonlighting per pay period. Any program that wishes to have a resident exceed this must obtain approval from the GMEC.

v. Any graduate medical trainee wishing to discuss a duty hour concern may do so confidentially with their program director, chief resident, GME office or the DIO.

Trainees are encouraged to utilize the anonymous incident reporting line at (804)
Gary L. Francis, MD, PhD, CDE
Director, Fellowship in Pediatric Endocrinology and Metabolism
Virginia Commonwealth University
Policy for Leave

Fellowship in Pediatric Endocrinology and Metabolism

at Virginia Commonwealth University

It shall be the policy of the Fellowship in Pediatric Endocrinology and Metabolism to adhere to the guidelines, policies and procedures outlined by the Accreditation Council for Graduate Medical Education, the Policy on Supervision of the Department of Graduate Medical Education and the Department of Pediatrics at the Virginia Commonwealth University and Children's Hospital of Richmond.

Sick Leave: Paid Sick leave is provided to housestaff in the amount of thirty (30) calendar days within a year’s contract period. It does not carry forward.

Family and Medical Leave: Family and Medical leave for members of the housestaff complies with the Family and Medical Leave policy established by Virginia Commonwealth University and the Medical College of Virginia Hospitals. It allows for up to 12 weeks of paid [sick or vacation] and/or unpaid leave within the guidelines of the policy. A major consideration for this leave is its potential effect on training completion. Please see your program director or the GME office for additional details.

Vacation: All housestaff receive three (3) weeks of vacation. Additional compensation is not provided in lieu of vacation. It may not carry forward.

Holiday and Compensatory Time: The resident follows the rotation schedule of the service to which he or she is assigned for that month. For example if a clinic is closed on Saturday and/or Sunday, the resident is not
required to work unless otherwise assigned. The same is true with holidays. The resident is not eligible for compensatory time.

Professional Leave: Each program has its own professional leave policy which covers conferences, research time and other scholarly activities.

Educational Training Leave: All residents may be eligible for one month of educational training leave. This is most often in the final year of their training. Salary and Benefits will be paid during that month. Your program director or the GME office may be contacted for additional information.

Leave of Absence: Residents may request a leave of absence from their program director. The decision to grant the leave will be reviewed by the program director and the Director of Graduate Medical Education. Part of the review will be based upon the impact of this leave on the program and on the resident’s completion of training.

Bereavement Leave/Family Sick Leave: A resident may be allowed up to three (3) days per year of Bereavement Leave or Family Sick Leave for an immediate family member. This leave is to come from Sick Leave.

Additional Time for Completing Board Requirements: In certain cases, authorized absence of housestaff members may jeopardize Board certification. In the event that the time missed needs to be made up to satisfy educational requirements (e.g., at the end of the normal term of appointment), the institution will be requested to continue to pay all salary and fringe benefits during the extended appointment as described in Section III of the Family and Medical Leave Policy:

Make-up training that occurs in a fiscal period other than when leave is taken requires that funding for housestaff salary and benefits is carried forward into this next fiscal period. This funding will not be provided by
VCUHS unless approved following a request in writing by the Program Director to the Associate Dean for Graduate Medical Education. Funding past the initially scheduled completion date for the post-graduate year will be for a maximum of six (6) weeks. In exceptional cases, funding for housestaff salary and/or benefits for make-up time that extends beyond six weeks may be granted by the Executive Committee of the Graduate Medical Education Committee. The Executive Committee will consider these requests on a case by case basis. It is the responsibility of the Program Director to request this additional paid make-up time at the time of the leave request. Requests for paid make-up time that extends beyond six weeks made after the initial leave request will not be considered.

Gary L. Francis, MD, PhD, CDE
Director, Fellowship in Pediatric Endocrinology and Metabolism
Virginia Commonwealth University
Policy for Moonlighting

Fellowship in Pediatric Endocrinology and Metabolism

at Virginia Commonwealth University

It shall be the policy of the Fellowship in Pediatric Endocrinology and Metabolism to adhere to the guidelines, policies and procedures outlined by the Accreditation Council for Graduate Medical Education, the Policy on Moonlighting of the Department of Graduate Medical Education and the Department of Pediatrics at the Virginia Commonwealth University and Children’s Hospital of Richmond.

Policy

The moonlighting policy for residents and fellows in all Graduate Medical Education (GME) training programs of the Virginia Commonwealth University Health System (VCUHS) follows requirements established by the Accreditation Council of Graduate Medical Education (ACGME). It is the Program Director's responsibility to develop program-specific moonlighting policies and criteria for participation. These program-specific policies may be more restrictive than the GME policy but not less restrictive. Program Directors may prohibit moonlighting for all residents in his/her program but cannot require it. Program specific policies must include rotations during which moonlighting is permitted for each year of the curriculum and the maximum number of hours housestaff are allowed to moonlight during any two week pay period. The institution will only provide reimbursement for up to 24 hours of internal moonlighting per two week pay period. If moonlighting is allowed, the procedures specified below must be followed.

Background

Moonlighting is the resident's participation in any clinical activity that occurs outside of the residency training
program. Two types of moonlighting are recognized:

1. External moonlighting activities: These are clinical activities occurring outside of the auspices of VCU Health System. VCU Health System does not provide malpractice coverage for such activities, nor are such activities covered by the resident’s training license. The resident is responsible for obtaining appropriate and necessary licenses and malpractice coverage.

2. Internal moonlighting activities: Internal moonlighting activities are optional clinical activities based at VCUHS and its affiliates (e.g., Richmond Veterans Administration Medical Center) providing additional learning opportunities for a resident or fellow beyond the minimum requirements established by an RRC. Residents participating in these activities must have a full Virginia license and must work under the supervision of a faculty member at all times. A resident may not bill for any services provided, and, similar to required residency rotations, his/her scope of practice is based upon level of training and experience as defined in departmental policies.

Residency and fellowship programs normally require the full time efforts of participating residents. Moonlighting activities, whether internal or external, may be inconsistent with sufficient time for rest and restoration to promote the residents’ educational experience and safe patient care. Therefore, institutions and program directors must consider all moonlighting requests carefully and closely monitor all moonlighting activities.

Departmental Policies

Each residency training program must have a specific departmental policy on moonlighting. Each department’s policy must be consistent with this general institutional policy, and with the relevant general and special requirements of its ACGME Residency Review Committee (RRC). Departmental policies must specifically state whether their residents may moonlight. Only residents in good academic standing should be considered for the
privilege of moonlighting. If residents are allowed to moonlight, the policy must also specify those levels of training (e.g., PG2, PG3, etc.) for which moonlighting is permitted, whether there is a defined upper limit of duty hours for regular duty and moonlighting combined, and whether internal or external moonlighting is allowed. The departmental policy should also address the process and consequences should the resident or fellow be found to be in violation of the departmental or institutions moonlighting policies or if moonlighting is thought to be interfering with the performance of residency or fellowship responsibilities.

By ACGME policy, PGY-1 residents are not permitted to moonlight.

Approval of moonlighting activities
1. Residents must request approval from the program director before engaging in moonlighting activities. Moonlighting must not occur before specific approval is granted. Approval for moonlighting is time-limited, and is granted for 6 months at a time. Permission to moonlight must be documented in New Innovations and updated every six months. The resident who wishes to moonlight must provide the Program Director with a separate, written request form (see Attachment 1) for each moonlighting activity. This request must contain the following items: place, statement of duties and estimated number of hours per week for each moonlighting activity. In applying for approval for moonlighting activities, the resident understands and agrees that outside employment will not be considered an excuse for poor job performance, absenteeism, tardiness, early departure, refusal to travel, refusal to work overtime or different hours, or refusal to accept additional assignments.

2. Professional liability insurance (malpractice) provided as a benefit to each resident covers only the performance of his/her duties in the training program and includes approved internal moonlighting but does not cover external moonlighting activities.
VCUHS is not responsible for the cost of additional professional liability insurance or any other costs related to external moonlighting. The resident should attach to the request form written evidence of insurance coverage (malpractice) for moonlighting activities.

(Note: Moonlighting at the Richmond VA Medical Center does not require malpractice insurance.)

3. The resident must provide evidence of full and unrestricted licensure with their written request to participate in moonlighting activities. The training license (limited license) is not adequate.

4. The Program Director should consider the moonlighting request and take into account the following questions when making a decision:

a. Is the resident in good standing in the program?

b. Does the resident have a record of poor job performance, attendance problems, or excessive use of leave?

c. Will the proposed moonlighting activity interfere with the clinical or educational activities of the residency or fellowship?

d. Does the proposed moonlighting activity have the potential to cause undue fatigue?

e. Will the proposed moonlighting activity cause the resident to violate ACGME standards on duty hours, including total duty hours, time off between work periods, or one day off in seven?

f. Is the proposed moonlighting activity commensurate with the level of training, experience and competence of the requesting resident?

5. If the Program Director approves the resident’s request, he or she should concur by signing the statement of permission on the request form. The request form with approval
signature is made a part of the resident’s permanent file.

6. The resident must inform the outside employer that the residency or fellowship is of top priority. The outside employer must agree to accommodate the residency or fellowship schedule and avoid schedule conflicts; in addition, the outside employer should have no expectation that the resident will be available to work during his or her scheduled duty hours at MCVH and its affiliated institutions.

7. It is the resident’s responsibility to notify his or her Program Director of any changes in moonlighting (place, hours, duties) and to obtain approval for such changes.

Oversight of moonlighting

1. Because residency education is a full-time endeavor, the program director must ensure that moonlighting does not interfere with the ability of the resident to achieve the goals and objectives of the educational program. If moonlighting is permitted, the residents’ performance must be monitored for the effect of these activities upon performance. The Program Director may prohibit or rescind approval of any moonlighting activity if he/she believes that the resident's performance or learning is suffering, patient care is in jeopardy, undue fatigue has resulted, or other substantive issues have arisen.

2. Time spent by residents in Internal and External Moonlighting (as defined in the ACGME Glossary of Terms) must be counted towards the 80-hour Maximum Weekly Hour Limit. The resident has primary responsibility for ensuring that he/she maintains compliance with work hour rules at all times.

3. If moonlighting activities create resident fatigue sufficient to jeopardize patient care, the resident should be sent home to rest. Back-up support systems must be provided by the training program in these circumstances.
Attachment 1: Request to engage in moonlighting activity

Resident Name:
Training Program:
Current PGY Level:
Requested Moonlighting Site:

Is this moonlighting activity (check one):

_____ Internal (to be performed within VCUHS or the McGuire VA Hospital)
_____ External (outside of VCU Health System and McGuire VA Hospital)

Estimated Hours per shift: _________ Estimated Hours per week: _________

Description of duties:

I have attached the following:

• Copy of full, unrestricted and current medical license
• Copy of insurance (malpractice) certificate showing coverage in force for outside employment

I certify that I understand and agree to the following:

• Outside employment will not be considered an excuse for poor job performance, absenteeism, tardiness, early departure, refusal to travel, refusal to work overtime or different hours, or refusal to accept additional
assignments.

- I have informed my outside employer that the residency or fellowship is of top priority. The outside employer has agreed to accommodate the residency or fellowship schedule and avoid conflicts with my educational program.
- I will inform the program director of any changes, corrections or additions to moonlighting place, schedule, duties or total work hours. Additional moonlighting sites require an additional form.
- I understand that internal moonlighting hours (VCUHS or McGuire VA Hospital) count toward the duty hour limit, and I will not moonlight in excess of my program’s limits.
- My approval to moonlight may be revoked if difficulties with learning, performance, patient care, fatigue or other issues arise.
- This approval is time-limited and applies for six (6) months from date of signing only.

Signed: Date:_________
(Resident Signature)

Approved: Date:_________
(Program Director Signature)

For all internal moonlighting activity:

Approved: Date:_________
(Director, Graduate Medical Education)
Guidelines for the circumstances and events which necessitate notification of the responsible faculty member or escalation beyond a fellow’s immediate supervisor in the Fellowship in Pediatric Endocrinology and Metabolism at Virginia Commonwealth University

1. It shall be the policy of the Fellowship in Pediatric Endocrinology and Metabolism to adhere to the guidelines, policies and procedures outlined by the Accreditation Council for Graduate Medical Education, the Policy on Supervision of the Department of Graduate Medical Education and the Department of Pediatrics at the Virginia Commonwealth University and Children’s Hospital of Richmond.

2. The Medical College of Virginia of Virginia Commonwealth University Health System and the Children’s Hospital of Richmond of the Virginia Commonwealth University Health System subscribe to the philosophy that the most effective learning environment for post-graduate medical trainees is one that allows sufficient freedom for housestaff to share responsibility for decision making in patient care, and yet provides adequate and appropriate faculty supervision and involvement in order to provide feedback to trainees about their actions, and to address the quality and safety of the care rendered to patients. In order to preserve this type of learning environment for its teaching programs, the Institution advocates the following principles as elements of its policy on housestaff education and supervision:

1. Housestaff, working under the authority and supervision of attending faculty, are regarded as the primary coordinators of care for all patients admitted to the teaching inpatient services, emergency rooms, and clinics, and, as such, are responsible for the writing of orders, for the maintenance of records, and for the execution of diagnostic, therapeutic, and discharge plans.

2. Depending on their level of training, it is appropriate and essential that junior housestaff be supervised by more senior housestaff in accordance with Accreditation Council for Graduate Medical Education (ACGME)
requirements (see below) and training program and site-specific guidelines.

3. All spheres of housestaff activity will be supervised by attending faculty members who share responsibility with house officers for patient care rendered, and who have ultimate authority for final decision-making. The structure of housestaff-attending interactions and the form that faculty supervision of housestaff takes will vary according to site and type of patient care setting and will be developed by the training programs.

3. The Fellowship in Pediatric Endocrinology and Metabolism provides both inpatient and outpatient learning environments for the fellow that span a wide range in acuity to include consultation services to the emergency department, pediatric intensive care unit (PICU), and neonatal intensive care unit (NICU). The structure and intensity of supervision differ in these environments yet they allow the fellow to grow in his/her level of proficiency throughout the training program and provide opportunity for the fellow to supervise and teach more junior trainees at all levels.

4. It is the Policy of this Program to provide supervision by qualified faculty to the fellow in all of these locations. The degree of supervision is most intense during the beginning of training and will be relaxed as the fellow acquires skills adequate to assume a more robust role in patient management. Nevertheless, at no time will the fellow be unsupervised by the faculty who retain the final responsibility for all decisions or actions relative to patient care.

5. Guidelines for the circumstances and events which necessitate notification of the responsible faculty member or escalation beyond a fellow’s immediate supervisor include the following. As a minimum, the fellow will notify the on-call pediatric endocrine attending physician in a timely fashion independent of the time of day for any substantial controversy regarding patient care, any serious change in the patient’s course including, at a minimum: unexpected death, need for surgery, transfer to an intensive care unit or to another service for treatment of an acute problem, end-of-life decisions, patient / parental dissatisfaction with the health care process, or at any time and for any reason the fellow feels uncomfortable with the current level of supervision.
6. The pediatric endocrine faculty on call will immediately respond to this request and will come in to personally and directly assess the patient and circumstances so as to provide seamless and experienced care and to carefully document all events. If communication should fail to reach the on-call pediatric endocrinologist, the Chief of Service will be called and respond. There is a 24-hour emergency re-call roster posted for all levels of back-up in emergency situations.

Gary L. Francis, MD, PhD, CDE
Director, Fellowship in Pediatric Endocrinology and Metabolism
Virginia Commonwealth University
GOALS AND OBJECTIVES (2014)
PEDIATRIC ENDOCRINOLOGY FELLOWSHIP PROGRAM

Overall Program Goals

The fellowship in pediatric endocrinology and metabolism at Virginia Commonwealth University (VCU) is a three year program that is supported by two tracks.

TRACK 1: The first track (traditional) is designed to train pediatricians for competency and subspecialty board eligibility in pediatric endocrinology and metabolism. Graduates are expected to become independent and competent practitioners who are dedicated to life-long learning. They should be capable of passing the subspecialty boards in pediatric endocrinology and incorporating the scientific process into academic careers. They would be expected to become future leaders and teachers in the academic community.

TRACK 2: The second track (Master's in Clinical and Translational Science) is also designed to launch selective fellows on a career path that will lead to competency and subspecialty board eligibility in pediatric endocrinology and metabolism. However, graduates are expected to become independent and competent practitioners who are dedicated to life-long learning and an academic career that relies heavily on the tools of epidemiology, systems–science, and complex biological systems as they pertain to the field of pediatric endocrine research and prevention. Fellows in this track are expected to complete all degree requirements for the Master’s Degree in addition to the clinical work required of a fellowship in pediatric endocrinology and metabolism.

Program Objectives

The program is designed to promote increasing responsibility and independence throughout the three years of training. The Pediatric Endocrine Subspecialty Resident’s responsibilities are much more broad and more in
depth than are those of a General Pediatric Resident.

1. The trainee will become familiar with the presentation, differential diagnosis, and management of endocrine and metabolic disorders in children. This will include but not be limited to such disorders as diabetes, abnormal growth, diseases of the thyroid, abnormalities of sexual differentiation and pubertal development, abnormalities of calcium and mineral metabolism, and others.
   a. The trainee will develop and continually sharpen his/her skills at acquiring a disease history and pedigree.
   b. The trainee will develop and continually sharpen his/her skills at diagnosis of endocrine-metabolic diseases.
   c. The trainee will develop and increase his/her understanding of normal and abnormal function of the endocrine system.

2. The trainee will become familiar with the function of the endocrine laboratory to include the quantitative analysis of hormone levels by radioimmunoassay and other techniques.
   a. The trainee will become familiar with the power and limitations of these techniques.
   b. The trainee will become familiar with the techniques and limitations in the analysis of hormone levels.
   c. The trainee will become familiar with the appropriate indications for these tests and with their interpretation.

3. The trainee will develop, focus and complete a research study that will lead to publication of a peer-reviewed manuscript.
   a. All trainees will acquire basic skills in biostatistics, epidemiology, research study design, data analysis, and research ethics.
   b. Fellows in the Master's track will acquire in-depth expertise in these areas.

4. The trainee will develop skills in life-long learning, critical literature review, and practice-based learning improvement.

Throughout the three years of training, the fellow will achieve these objectives through mentored clinical patient care, research and didactic learning with increasing levels of responsibility.
First year program objectives are:

Fellows must be able to 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.

a. The first year fellow will learn to perform a history, physical examination and tests with a focus on endocrine disorders. In accord with this competence, the first year fellow will acquire and demonstrate skills in gathering essential and accurate information about the patient using medical interviewing, physical examination, diagnostic studies and developmental assessment. This will be assessed by the faculty evaluations, peer evaluations, patient / parent questionnaires, and the 360 degree evaluation (evaluation from faculty, peers, residents, general pediatric faculty, nursing nutrition, clinical administration, parents and patients).

b. The first year fellow will learn how to perform a detailed endocrine evaluation of the pediatric patient leading to appropriate differential diagnosis, clarification of diagnosis and therapy. He/She will propose diagnostic and therapeutic decisions based on this information, current scientific evidence, and clinical judgment. In conjunction with the attending, he/she will develop and carry out patient care plans based on this information, prescribe and perform in a competent manner all indicated tests and procedures, and will counsel the patient and family regarding the measures required to maintain health, prevent disease, understand illness and its treatment, share decision making, obtain informed consent, comfort and allay fears. This will be assessed by the faculty evaluations, peer evaluations, patient / parent questionnaires, and the 360 degree evaluation (evaluation from faculty, peers, residents, general pediatric faculty, nursing nutrition, clinical administration, parents and patients).

c. The first year fellow will follow patients throughout the hospitalization, recognize management priorities and develop a plan to achieve these goals. The faculty evaluations, peer evaluations, patient / parent questionnaires, and the 360 degree evaluation (evaluation from faculty, peers, residents, general pediatric faculty, nursing nutrition, clinical administration, parents and patients).

d. The first year fellow will develop responsibility for continuity of patient care. The faculty evaluations, peer evaluations, patient / parent questionnaires, and the 360 degree evaluation (evaluation from faculty, peers, residents, general pediatric faculty, nursing nutrition, clinical administration, parents and patients).
Medical Knowledge:

Fellows must demonstrate knowledge about established evolving biomedical, clinical, epidemiological, and social-behavioral sciences and the application of this knowledge to the care of patients.

a. The first year fellow will learn how to critically evaluate the literature, current medical information, computer-based search engines, and the scientific evidence on which patient care is based. This will be assessed by faculty evaluations, in training examinations, participation in rounds and conferences, and certification by Endocrine University in thyroid ultrasound, FNA, bone mineral assessment, diabetes education, and the radioimmunoassay laboratory.

b. The first year fellow will learn the basic physiology of hormonal secretion and action from prenatal through adolescent age groups. This will be assessed by faculty evaluations, in training examinations, and participation in rounds and conferences.

c. The first year fellow will learn the basic factors involved in the ethical, fiscal and legal issues relating to patient care in the hospital setting. This will be assessed by faculty evaluations, in training examinations, and participation in rounds and conferences.

Interpersonal Skills and Communication:

Fellows must be able to demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, parents, and professional associates.

a. The first year fellow will learn how to supervise pediatric residents and students. This will be assessed by faculty evaluations, peer review, patient / parent surveys, and 360 degree evaluation.

b. The first year fellow will learn to communicate effectively with physicians, other health care professionals, health related agencies, work as an effective member of the health care team, act as a consultant to other physicians and trainees, and maintain comprehensive, legible, and timely medical records. This will be assessed by faculty evaluations, peer review, patient / parent surveys, and 360 degree evaluation.

c. The first year fellow will learn to communicate in a developmentally, culturally and educationally
appropriate manner with patients and families. This will be assessed by faculty evaluations, peer review, patient / parent surveys, and 360 degree evaluation.

d. The first year fellow will learn techniques that are best used for small group teaching (2-4 / group). This will be assessed by faculty evaluations, peer review, patient / parent surveys, and 360 degree evaluation.

Practice Based Learning and Improvement:

Fellows must be able to use scientific methods and evidence to investigate, evaluate, and improve their patient care practice. The first year fellow will take responsibility for life-long learning to improve their skills and knowledge.

a. The first year fellow will analyze their own practice experience from scientific studies that relate to the care of their patients. This will be assessed by faculty evaluations, peer evaluation, practice portfolios, case logs / chart reviews, participation in rounds and conferences, and by continuous quality improvement projects.

b. They will locate, assimilate and appraise the evidence from scientific studies that relate to the care of their patients. This will be assessed by faculty evaluations, peer evaluation, practice portfolios, case logs / chart reviews, participation in rounds and conferences, and by continuous quality improvement projects.

c. They will effectively utilize information technology to facilitate this process. They will acknowledge medical errors and assess means by which to prevent them in the future. This will be assessed by faculty evaluations, peer evaluation, practice portfolios, case logs / chart reviews, participation in rounds and conferences, and by continuous quality improvement projects.

d. They will learn the complex interplay between endocrinology and other subspecialties. This will be assessed by faculty evaluations, peer evaluation, practice portfolios, case logs / chart reviews, participation in rounds and conferences, and by continuous quality improvement projects.

e. They will learn the psychosocial aspects of endocrine disease with emphasis on early intervention and participation in practical interventions such as psycho-endocrine counseling. This will be assessed by faculty evaluations, peer evaluation, practice portfolios, case logs / chart reviews, participation in rounds and conferences, and by continuous quality improvement projects.
Professionalism:
Fellows will demonstrate a commitment to professional responsibilities, adherence to ethical principals, and sensitivity to diversity.

a. The first year fellow will demonstrate respect for and respond to the needs of the patient and society. This will be assessed by faculty evaluations, peer review, and patient surveys.
b. The first year fellow will accept responsibility for patient care, demonstrate integrity, honesty, compassion, and empathy, respect privacy and autonomy, demonstrate accountability and commitment, and respond to the patient that supersedes that to self. This will be assessed by faculty evaluations, peer review, and patient surveys.
c. The first year fellow will adhere to principals of medical ethics with focus on endocrine disorders such as ambiguous genitalia. This will be assessed by faculty evaluations, peer review, and patient surveys.

Systems Based Practice:
Fellows must practice quality health care and advocate for patients in the health care system.

a. The first year fellow will learn how different types of medical practice differ in controlling costs, assuring quality and allocating resources. This will be assessed by faculty evaluations, peer review, patient surveys, and participation in teaching conferences.
b. They will practice cost effective health care that does not compromise quality, advocate for patient care, learn how to work with case managers and systems, and learn how to advocate for disease prevention. This will be assessed by faculty evaluations, peer review, patient surveys, and participation in teaching conferences.
c. They will learn the use of flow charts and computer software that enhance quality of care leading to quality improvement. This will be assessed by faculty evaluations, peer review, and participation in teaching conferences.
d. They will choose an area of endocrine interest to be used for a research program. This will be
assessed by faculty evaluations.

Second year objectives are:

At each year level and with increasing complexity, detail, and independence the subspecialty fellow will increase his/her command of the essential competencies for pediatrics and subspecialty pediatrics as outlined below. Second year objectives are:

Patient Care:

Fellows must be able to 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.

a. The second year fellow will increase his/her skills in gathering essential information about the patients by using a history, physical examination and tests with a focus on endocrine disorders. In accord with this competence, the second year fellow will acquire and demonstrate skills in gathering essential and accurate information about the patient using medical interviewing, physical examination, diagnostic studies and developmental assessment. This will be assessed by the faculty evaluations, peer evaluations, patient / parent questionnaires, and the 360 degree evaluation (evaluation from faculty, peers, residents, general pediatric faculty, nursing nutrition, clinical administration, parents and patients).

b. The second year fellow, with guidance from the attending, develop and carry out patient care plans based on this information, prescribe and perform in a competent manner all indicated tests and procedures, and will counsel the patient and family regarding the measures required to maintain health, prevent disease, understand illness and its treatment, share decision making, obtain informed consent, comfort and allay fears. This will be assessed by the faculty evaluations, peer evaluations, patient / parent questionnaires, and the 360 degree evaluation (evaluation from faculty, peers, residents, general pediatric faculty, nursing nutrition, clinical administration, parents and patients).

c. The second year fellow will learn the skills to acquire greater detail in the endocrine history, physical examination and tests. This will be assessed by the faculty evaluations, peer evaluations, patient / parent questionnaires, and the 360 degree evaluation (evaluation from faculty, peers, residents, general pediatric
The second year fellow will perform with limited prompting a detailed endocrine evaluation of the pediatric patient leading to appropriate differential diagnosis and treatment. This will be assessed by the faculty evaluations, peer evaluations, patient/parent questionnaires, and the 360 degree evaluation (evaluation from faculty, peers, residents, general pediatric faculty, nursing nutrition, clinical administration, parents and patients).

e. The second year fellow will follow patients throughout the hospitalization, recognize management priorities and develop a plan to achieve these goals. The faculty evaluations, peer evaluations, patient/parent questionnaires, and the 360 degree evaluation (evaluation from faculty, peers, residents, general pediatric faculty, nursing nutrition, clinical administration, parents and patients).

f. The second year fellow will increase his/her responsibility for continuity of patient care. This will be assessed by the faculty evaluations, peer evaluations, patient/parent questionnaires, and the 360 degree evaluation (evaluation from faculty, peers, residents, general pediatric faculty, nursing nutrition, clinical administration, parents and patients).

Medical Knowledge:

Fellows must demonstrate knowledge about established evolving biomedical, clinical, epidemiological, and social-behavioral sciences and the application of this knowledge to the care of patients.

a. The second year fellow show consistent critical evaluation of the literature, current medical information, computer-based search engines, and the scientific evidence on which patient care is based. This will be assessed by faculty evaluations, in training examinations, participation in rounds and conferences, and certification by Endocrine University in thyroid ultrasound, FNA, bone mineral assessment, diabetes education, and the radioimmunoassay laboratory.

b. The second year fellow will learn the basic physiology of hormonal secretion and action from prenatal through adolescent age groups for the less common endocrine disorders. This will be assessed by faculty evaluations, in training examinations, and participation in rounds and conferences.

c. The second year fellow will understand the more complex factors involved in the ethical, fiscal and legal
issues relating to patient care in the hospital setting. This will be assessed by faculty evaluations, in training examinations, and participation in rounds and conferences.

d. The second year fellow will learn the potential problems and limitations of endocrine testing. This will be assessed by faculty evaluations, in training examinations, and participation in rounds and conferences.

e. The second year fellow will become less dependent on faculty input to order appropriate laboratory test and procedures. This will be assessed by faculty evaluations, and participation in rounds and conferences.

Interpersonal Skills and Communication:
Fellows must be able to demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, parents, and professional associates.

a. The second year fellow will improve his / her ability to communicate in a developmentally, culturally and educationally appropriate manner with patients and families. This will be assessed by faculty evaluations, peer review, patient / parent surveys, and 360 degree evaluation.

b. The second year fellow will communicate effectively with physicians, other health care professionals, health related agencies, work as an effective member of the health care team, act as a consultant to other physicians and trainees, and maintain comprehensive, legible, and timely medical records. This will be assessed by faculty evaluations, peer review, patient / parent surveys, and 360 degree evaluation.

c. The second year fellow will learn to interact and acquire necessary information from primary care physicians leading to effective consultation. This will be assessed by faculty evaluations, peer review and 360 degree evaluation.

d. The second year fellow will learn to communicate with primary care physicians. This will be assessed by faculty evaluations, peer review and 360 degree evaluation.

b. The second year fellow will communicate effectively with physicians, other health care professionals, health related agencies, work as an effective member of the health care team, act as a consultant to other physicians and trainees, and maintain comprehensive, legible, and timely medical records. This will be assessed by faculty evaluations, peer review, patient / parent surveys, and 360 degree evaluation.

e. The second year fellow will learn techniques that are best used for medium group teaching (10-15 / group). This will be assessed by faculty evaluations, peer review, patient / parent surveys, and 360 degree evaluation.
Practice Based Learning and Improvement:

Fellows must be able to use scientific methods and evidence to investigate, evaluate, and improve their patient care practice. The first year fellow will take responsibility for life-long learning to improve their skills and knowledge.

a. The second year fellow will analyze their own practice experience to determine their areas of strength and weakness. They will locate assimilate and appraise the evidence from scientific studies that relate to the care of their patients. They will effectively utilize information technology to facilitate this process. This will be assessed by faculty evaluations, peer evaluation, practice portfolios, case logs / chart reviews, participation in rounds and conferences, and by continuous quality improvement projects.

b. They will acknowledge medical errors and assess means by which to prevent them in the future. This will be assessed by faculty evaluations, peer evaluation, practice portfolios, case logs / chart reviews, participation in rounds and conferences, and by continuous quality improvement projects.

c. They will increase their knowledge of the complex interplay between endocrinology and other subspecialties. This will be assessed by faculty evaluations, peer evaluation, practice portfolios, case logs / chart reviews, participation in rounds and conferences, and by continuous quality improvement projects.

d. They will increase their knowledge of the psychosocial aspects of endocrine disease with emphasis on early intervention and participation in practical interventions such as psycho-endocrine counseling. This will be assessed by faculty evaluations, peer evaluation, practice portfolios, case logs / chart reviews, participation in rounds and conferences, and by continuous quality improvement projects.

e. Each fellow will complete a project in continuous quality improvement and follow through with effective programs that lead to improved patient care. This will be assessed by faculty evaluations, peer evaluation, and by continuous quality improvement projects.

f. They will respond to sentinel events. This will be assessed by faculty evaluations and peer evaluation.

Professionalism:
Fellows will demonstrate a commitment to professional responsibilities, adherence to ethical principals, and sensitivity to diversity.

a. The second year fellow will demonstrate respect for and respond to the needs of the patient and society. This will be shown by his / her ability to accept responsibility for patient care, demonstrate integrity, honesty, compassion, and empathy, respect privacy and autonomy, demonstrate accountability and commitment, and respond to the patient that supersedes that to self. This will be assessed by faculty evaluations, peer review, and patient surveys.

b. The second year fellow will demonstrate principals of medical ethics with focus on endocrine disorders such as ambiguous genitalia. This will be assessed by faculty evaluations, peer review, and patient surveys.

c. The second year fellow will solidify the research focus, write and submit an IRB proposal. This will be assessed by faculty and peer evaluations.

d. The second year fellow will prepare an abstract for national presentation. This will be assessed by faculty and peer evaluation and feed back from the national meeting.

Systems Based Practice:

Fellows must practice quality health care and advocate for patients in the health care system.

a. The second year fellow will learn how different types of medical practice differ in controlling costs, assuring quality and allocating resources. This will be assessed by faculty evaluations, peer review, patient surveys, and participation in teaching conferences.

b. They will practice cost effective health care that does not compromise quality, advocate for patient care, learn how to work with case managers and systems, and learn how to advocate for disease prevention. This will be assessed by faculty evaluations, peer review, patient surveys, and participation in teaching conferences.

c. Each fellow will complete a project in continuous quality improvement and follow through with effective programs that lead to improved patient care. This will be assessed by faculty evaluations, peer evaluation, and by continuous quality improvement projects.
d. They will respond to sentinel events. This will be assessed by faculty evaluations and peer evaluation.

Third Year Objectives:

At each year level and with increasing complexity, detail, and independence the subspecialty fellow will increase his/her command of the essential competencies for pediatrics and subspecialty pediatrics as outlined below. The overall goals for the third year are to become knowledgeable and proficient in pediatric endocrinology, to develop critical skills in reading and interpreting pertinent endocrine literature, to develop research skills that will facilitate future academic productivity, to develop interpersonal skills that are professional and conducive to effecting utilization of the health care team, and to develop a style and dedication to life long learning. Third year objectives are:

Patient Care:

Fellows must be able to 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.

a. The fellow will demonstrate mature skills in gathering essential information about the patients by using a history, physical examination and tests with a focus on endocrine disorders. In accord with this competence, the fellow will acquire and demonstrate skills in gathering essential and accurate information about the patient using medical interviewing, physical examination, diagnostic studies and developmental assessment. This will be assessed by the faculty evaluations, peer evaluations, patient / parent questionnaires, and the 360 degree evaluation (evaluation from faculty, peers, residents, general pediatric faculty, nursing nutrition, clinical administration, parents and patients).

b. The fellow will make informed diagnostic and therapeutic decisions based on this information, current scientific evidence and clinical judgment. This will be assessed by the faculty evaluations, peer evaluations, patient / parent questionnaires, and the 360 degree evaluation (evaluation from faculty, peers, residents, general pediatric faculty, nursing nutrition, clinical administration, parents and patients).

c. The fellow, with minimal guidance from the attending, will develop and carry out patient care plans based on this information, prescribe and perform in a competent manner all indicated tests and procedures,
and will counsel the patient and family regarding the measures required to maintain health, prevent disease, understand illness and its treatment, share decision making, obtain informed consent, comfort and allay fears. This will be assessed by the faculty evaluations, peer evaluations, patient / parent questionnaires, and the 360 degree evaluation (evaluation from faculty, peers, residents, general pediatric faculty, nursing nutrition, clinical administration, parents and patients).

d. The fellow will consolidate the skills learned in the first and second years to acquire detailed endocrine history, physical examination and tests. This will be assessed by the faculty evaluations, peer evaluations, patient / parent questionnaires, and the 360 degree evaluation (evaluation from faculty, peers, residents, general pediatric faculty, nursing nutrition, clinical administration, parents and patients).

e. The fellow will perform a detailed endocrine evaluation of the pediatric patient leading to appropriate differential diagnosis and treatment. This will be assessed by the faculty evaluations, peer evaluations, patient / parent questionnaires, and the 360 degree evaluation (evaluation from faculty, peers, residents, general pediatric faculty, nursing nutrition, clinical administration, parents and patients).

f. The fellow will follow patients throughout the hospitalization, recognize management priorities and develop a plan to achieve these goals. The faculty evaluations, peer evaluations, patient / parent questionnaires, and the 360 degree evaluation (evaluation from faculty, peers, residents, general pediatric faculty, nursing nutrition, clinical administration, parents and patients).

g. The fellow will be responsible for continuity of patient care. This will be assessed by the faculty evaluations, peer evaluations, patient / parent questionnaires, and the 360 degree evaluation (evaluation from faculty, peers, residents, general pediatric faculty, nursing nutrition, clinical administration, parents and patients).

Medical Knowledge:

Fellows must demonstrate knowledge about established evolving biomedical, clinical, epidemiological, and social-behavioral sciences and the application of this knowledge to the care of patients.

a. The fellow will show consistent critical evaluation of the literature, current medical information, computer-based search engines, and the scientific evidence on which patient care is based. This will be
assessed by faculty evaluations, in training examinations, participation in rounds and conferences, and certification by Endocrine University in thyroid ultrasound, FNA, bone mineral assessment, diabetes education, and the radioimmunoassay laboratory.

b. The fellow will demonstrate through patient care and teaching a thorough knowledge of the physiology of hormonal secretion and action from prenatal through adolescent age groups for all endocrine disorders. This will be assessed by faculty evaluations, in training examinations, and participation in rounds and conferences.

c. The fellow will understand the complex factors involved in the ethical, fiscal and legal issues relating to patient care in the hospital setting. This will be assessed by faculty evaluations, in training examinations, and participation in rounds and conferences.

d. The fellow will know and appropriately apply the potential problems and limitations of endocrine testing. This will be assessed by faculty evaluations, in training examinations, and participation in rounds and conferences.

e. The fellow will become nearly independent on faculty input to order appropriate laboratory test and procedures. This will be assessed by faculty evaluations, and participation in rounds and conferences.

f. The fellow will focus on a research project leading to preparation and submission of a peer reviewed manuscript. This will be assessed by faculty evaluations.

g. The fellow will successfully present and defend the research to either the faculty research committee or the graduate School Research Committee (Track 2). This will be assessed by faculty evaluations.

Interpersonal Skills and Communication:

Fellows must be able to demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, parents, and professional associates.

a. The fellow is expected to communicate in a developmentally, culturally and educationally appropriate manner with patients and families. This will be assessed by faculty evaluations, peer review, patient / parent surveys, and 360 degree evaluation.

b. They will communicate effectively with physicians, other health care professionals, health related agencies, work as an effective member of the health care team, act as a consultant to other physicians and
trainees, and maintain comprehensive, legible, and timely medical records. This will be assessed by faculty evaluations, peer review, patient / parent surveys, and 360 degree evaluation.

c. The fellow will communicate effectively with referral base physicians and primary care physicians leading to effective consultation. This will be assessed by faculty evaluations, peer review and 360 degree evaluation.

d. The fellow will learn to communicate with other subspecialists to effectively generate a multidisciplinary health care team. This will be assessed by faculty evaluations, peer review and 360 degree evaluation.

e. The fellow will learn techniques that are best used for large group teaching (100-400 / group). This will be assessed by faculty evaluations, peer review, patient / parent surveys, and 360 degree evaluation.

Practice Based Learning and Improvement:

Fellows must be able to use scientific methods and evidence to investigate, evaluate, and improve their patient care practice. The first year fellow will take responsibility for life-long learning to improve their skills and knowledge.

a. The fellow will continue to analyze their own practice experience to determine their areas of strength and weakness. They will locate assimilate and appraise the evidence from scientific studies that relate to the care of their patients. They will effectively utilize information technology to facilitate this process. This will be assessed by faculty evaluations, peer evaluation, practice portfolios, case logs / chart reviews, participation in rounds and conferences, and by continuous quality improvement projects.

b. They will acknowledge medical errors and assess means by which to prevent them in the future. This will be assessed by faculty evaluations, peer evaluation, practice portfolios, case logs / chart reviews, participation in rounds and conferences, and by continuous quality improvement projects.

c. They will increase their knowledge of the complex interplay between endocrinology and other subspecialties. This will be assessed by faculty evaluations, peer evaluation, practice portfolios, case logs / chart reviews, participation in rounds and conferences, and by continuous quality improvement projects.

d. They will understand the importance of the psychosocial aspects of endocrine disease with emphasis
on early intervention and participation in practical interventions such as psycho-endocrine counseling. This will be assessed by faculty evaluations, peer evaluation, practice portfolios, case logs / chart reviews, participation in rounds and conferences, and by continuous quality improvement projects.

e. They will demonstrate the ability to prioritize workload in academic, teaching and patient care areas. This will be assessed by faculty evaluations, peer evaluation, practice portfolios, patient logs, chart reviews, participation in rounds and conferences, and by continuous quality improvement projects.

f. They will formulate short and intermediate goals that define a long range career trajectory. This will be assessed by faculty evaluations, peer evaluation, practice portfolios, patient logs, chart reviews, participation in rounds and conferences, and by continuous quality improvement projects.

Professionalism:
Fellows will demonstrate a commitment to professional responsibilities, adherence to ethical principals, and sensitivity to diversity.

a. The fellow will demonstrate respect for and respond to the needs of the patient and society. This will be shown by his / her ability to accept responsibility for patient care, demonstrate integrity, honesty, compassion, and empathy, respect privacy and autonomy, demonstrate accountability and commitment, and respond to the patient that supersedes that to self. This will be assessed by faculty evaluations, peer review, and patient surveys.

b. The fellow will demonstrate principals of medical ethics with focus on endocrine disorders such as ambiguous genitalia. This will be assessed by faculty evaluations, peer review, and patient surveys.

c. The fellow will adhere to ethical principals in research, publication and scientific integrity. This will be assessed by faculty and peer evaluations.

Systems Based Practice:
Fellows must practice quality health care and advocate for patients in the health care system.
a. The fellow will practice cost effective health care that does not compromise quality, advocate for patient care, know how to work with case managers and systems, and know how to advocate for disease prevention. This will be assessed by faculty evaluations, peer review, patient surveys, and participation in teaching conferences.

b. Each fellow will participate in continuous quality improvement and follow through with effective programs that lead to improved patient care. This will be assessed by faculty evaluations, peer evaluation, and by continuous quality improvement projects.

c. They will examine and discuss sentinel events. This will be assessed by faculty evaluations and peer evaluation.
ELECTIVE ROTATIONS

Adult Endocrinology
Nutrition
Diabetes Immersion
Diabetes Camp
Genetics
Imaging, Laboratory and RIA
Fellowship in Pediatric Endocrinology 2011

Curriculum for Elective Rotation:

Adult Endocrinology

Goals:

The goals of this rotation are:

For the Fellow in Pediatric Endocrinology to become familiar with the manifestations, progression and evolution of endocrine diseases throughout the life spectrum.

For the Fellow in Pediatric Endocrinology to become better prepared to discuss these issues with patients and families in order to assist them in understanding the future implications of endocrine disorders in children.

Objectives:

Following this rotation, the Fellow in Pediatric Endocrinology will be able to:

1. Describe the most common complications of diabetes mellitus and their treatments.
2. Describe the treatment goals and available options for adults with type 2 diabetes mellitus.
3. Describe the typical presentation and management of nodular thyroid disease.
4. Describe the procedure, limitations, risks and benefits of fine needle aspiration (FNA) of the thyroid.
5. Describe the various options and risks for available forms of assisted fertility (egg donation, IVF, ICSI,
embryo transfer).

6. Describe the presentation and management options for polycystic ovary syndrome (PCOS).

7. Describe the hormonal treatment and risks from gender reassignment.

8. Describe the natural evolution of bone mineral density throughout the life span.

9. Describe the risks for osteoporosis and their reduction.

10. Describe the procedure for bone mineral density assessment (DEXA).

11. Compare and contrast treatment options for osteoporosis.

12. Understand the risks, benefits and technique for bone biopsy

13. Understand the various forms of dyslipidemia, treatment options, treatment preferences, risks, contraindications and benefits.

Structure:

This will be a one month rotation in adult endocrinology centered in the various endocrine outpatient clinics at VCUHS.

Night call is not required.

Supervision will be provided by the Internal Medicine-Endocrine Faculty assigned to clinic that day. The Fellow in Pediatric Endocrinology will be assigned patients in the various Internal Medicine Endocrine Clinics by the Internal Medicine Endocrine Attending and is expected to obtain an endocrine specific history, physical examination, differential diagnosis, and plan for evaluation and/or treatment. These will be reviewed with the Internal Medicine Endocrine Attending who will independently perform all relevant history and physical examination as required, discuss the case with the fellow, and review pertinent teaching points, errors, and omissions as appropriate.

Attendance will be required on a MON-FRI basis including all conferences held by Internal Medicine Endocrinology with the following exceptions:
1. Fellow will be released from adult endocrine clinic to attend his/her continuity clinic in Pediatric Endocrinology.

2. Fellow will be released from adult endocrine clinic to attend mandatory conferences:
   - Pediatric Grand Rounds (TUES 0800-0900)
   - Pediatric Endocrine Core Conference (WED 330-430)
   - Endocrine Grand Rounds (WED 430-530)
   - Journal Club (WED 0730-0830)
   - Endocrine Case Conference (WED NOON-100)

3. Vacation will be allowed if prior approval obtained from both the Program Director in Pediatric Endocrinology and Internal Medicine-Endocrinology.

4. Evaluations will be performed by the faculty in Internal Medicine-Endocrinology, compiled and reviewed with the Fellow by the Program Director for Internal Medicine-Endocrinology, and submitted to the Program Director in Pediatric Endocrinology for permanent retention in the Fellow Academic File.

Reading Assignments:

The Fellow in Pediatric Endocrinology is expected to complete any assigned reading for this rotation including relevant basic endocrinology text chapters (Becker, Williams, DeGroot, etc), recommended articles, and syllabus (as used by internal medicine endocrinology).

Case Presentation:

The Fellow in Pediatric Endocrinology is required to select a highly informative case from amongst the patients seen during this rotation and to prepare a case conference on this topic which will be presented to the Pediatric Endocrine Core Conference during the following month.

Clinical Focus:

Although it is not possible to list all the patients a Fellow might evaluate during this rotation, it is
expected that the scope of patients evaluated will be representative of the field, will complement the
knowledge base acquired from the study of pediatric endocrinology and will include:

Diabetes Mellitus
Type 2 Diabetes Mellitus
Thyroid Nodules
Infertility
PCOS
Osteoporosis
Dyslipidemia

_________________________  _______________________________
Gary L. Francis, MD, PhD, CDE  Diane Biskobing, MD
Program Director    Program Director
Pediatric Endocrine Fellowship    Internal Medicine Endocrine Fellowship
VCU                  VCU

_________________________  _______________________________
Date       Date
Fellow Electing This Rotation:

My signature attests that I have read these goals, objectives and expectations and agree to abide by the conditions outlined above along with all relevant GME policies and procedures. I understand that I will be evaluated on my performance by the faculty in Internal Medicine Endocrinology and that these evaluations will become a part of my permanent GME file. Any remedial or disciplinary actions or grievances will be forwarded through my program director to the GME Committee at VCU (if necessary) according to VCU Office of GME Policies.

_________________________  ________________
Fellow, Pediatric Endocrinology  Date
Fellowship in Pediatric Endocrinology 2011

Curriculum for Elective Rotation:

Nutrition

Goals:

The goals of this rotation are:

For the Fellow in Pediatric Endocrinology to become familiar with the manifestations, progression, diagnosis and management of nutritional disorders throughout the pediatric age range. This will include but not be limited to diabetes mellitus type 1 and type 2, obesity, dyslipidemia, failure to thrive, anorexia nervosa, and hyperalimentation.

For the Fellow in Pediatric Endocrinology to become better prepared to recognize and effectively treat these disorders.

Objectives:

Following this rotation, the Fellow in Pediatric Endocrinology will be able to:

1. Describe the basic nutritional requirements for type 1 and type 2 diabetes mellitus.
2. Describe the nutritional goals and available options for type 1 and type 2 diabetes mellitus.

3. Describe carbohydrate counting.

4. Participate effectively in the Healthy Life Style Clinic for overweight and obese children.

5. Utilize motivational interviewing in patient encounters requiring behavioral change.

6. Understand the nutritional approach to dyslipidemia, treatment options, treatment preferences, risks, contraindications and benefits.

Structure:

This will be a one month rotation in nutrition centered in the various pediatric endocrine outpatient clinics and inpatient services at VCUHS. There will be a one week rotation in the Healthy Life Style Clinic for multidisciplinary management of overweight and obesity.

Night call is not required.

Supervision will be provided by Alyssa Wehrmeister, RD, CDE. The Fellow in Pediatric Endocrinology will be assigned patients in the various Clinics by the RD, CDE and is expected to obtain an nutrition specific history, physical examination, differential diagnosis, and plan for evaluation and/or treatment. These will be reviewed with the RD, CDE who will independently perform all relevant history and nutritional assessments as required, discuss the case with the fellow, and review pertinent teaching points, errors, and omissions as appropriate.

Attendance will be required on a MON-FRI basis including all conferences held by Pediatric Endocrinology:

1. Fellow will be released from nutrition clinic to attend his/her continuity clinic in Pediatric Endocrinology
2. Fellow will be released from nutrition clinic to attend mandatory conferences:
   
   Pediatric Grand Rounds (TUES 0800-0900)
   
   Pediatric Endocrine Core Conference (WED 330-430)
   
   Endocrine Grand Rounds (WED 430-530)
Journal Club (WED 0730-0830)

Endocrine Case Conference (WED NOON-100)

3. Vacation will be allowed if prior approval obtained from both the Program Director in Pediatric Endocrinology and Nutrition

4. Evaluations will be performed by the RD, CDE, compiled and reviewed with the Fellow by the Program Director in Pediatric Endocrinology for permanent retention in the Fellow Academic File.

Reading Assignments:
The Fellow in Pediatric Endocrinology is expected to complete any assigned reading for this rotation including relevant basic nutrition text chapters, recommended articles, and syllabus (as used by RD, CDE).

Case Presentation:
The Fellow in Pediatric Endocrinology is required to select a highly informative case from amongst the patients seen during this rotation and to prepare a case conference on this topic which will be presented to the Pediatric Endocrine Core Conference during the following month.

Clinical Focus:

Although it is not possible to list all the patients a Fellow might evaluate during this rotation, it is expected that the scope of patients evaluated will be representative of the field, will complement the knowledge base acquired from the study of pediatric endocrinology and will include:

Type 1 Diabetes Mellitus

Type 2 Diabetes Mellitus

Obesity

Dyslipidemia
Fellow Electing This Rotation:

My signature attests that I have read these goals, objectives and expectations and agree to abide by the conditions outlined above along with all relevant GME policies and procedures. I understand that I will be evaluated on my performance by the faculty in Internal Medicine Endocrinology and that these evaluations will become a part of my permanent GME file. Any remedial or disciplinary actions or grievances will be forwarded through my program director to the GME Committee at VCU (if necessary) according to VCU Office of GME Policies.

_________________________  ________________
Fellow, Pediatric Endocrinology  Date
Goals:

The goals of this rotation are:

For the Fellow in Pediatric Endocrinology to become more familiar with the day to day manifestations, problems, and intensity of management for patients with type 1 diabetes mellitus.

Objectives:

Following this rotation, the Fellow in Pediatric Endocrinology will be able to:

1. Describe the daily nutritional requirements for type 1 diabetes mellitus.
2. Describe the difficulties involved with providing adequate meals, snacks, and blood sugar management for patients with type 1 diabetes.
3. Utilize their skills in carbohydrate counting to select insulin doses.
4. Insert and wear an insulin pump (saline loaded) to develop an understanding of the issues in pump use.
5. Insert and wear a continuous glucose sensor to develop an understanding of the issues in intensive insulin
therapy.

Structure:
This will be a one week rotation sponsored by adult and pediatric endocrinology at VCUHS.

Night call is not required.

Supervision will be provided by Gary Francis, MD, PhD, CDE, John Clore, MD, Melinda Penn, MD, Suzanne Bona, RN, CDE and Alyssa Wehrmeister, RD, CDE. The Fellow in Pediatric Endocrinology will participate in all aspects of the program, pretending to have type 1 diabetes, measuring his/her blood sugar, calculating carbohydrate doses, providing “insulin” (actually saline) by pump, responding to alarms of pump and sensor, interrupting daily life to go check blood sugar levels and respond to low or high levels. The program is designed to increase awareness of the difficulties in diabetes self management and threats to self esteem.

Attendance will be required for one day to insert the pump and sensor and these will be worn the entire week (24 hr / day).

1. Fellow will attend his/her continuity clinic in Pediatric Endocrinology

2. Fellow will attend mandatory conferences:
Pediatric Grand Rounds (TUES 0800-0900)
Pediatric Endocrine Core Conference (THUR 0730-0830)
Endocrine Grand Rounds (WED 430-530)
Journal Club (WED 0730-0830)

3. Vacation will not be allowed.

4. Evaluations will be performed by Melinda Penn, MD compiled and reviewed with the Fellow by the Program Director in Pediatric Endocrinology for permanent retention in the Fellow Academic File.
Reading Assignments:
The Fellow in Pediatric Endocrinology is expected to complete any assigned reading for this rotation including relevant basic nutrition text chapters, recommended articles, and syllabus (as used by RD, CDE).

Clinical Focus:
This is primarily an experiential rotation in which the fellow will develop an appreciation for the complexity of diabetes management in day to day life and to develop a better understanding of why patients and parents are often unable to adhere to prescribed methods of monitoring and treatment.

Gary L. Francis, MD, PhD, CDE  Alyssa Wehrmeister, RD, CDE
Program Director    Director
Pediatric Endocrine Fellowship, VCU
Pediatric Endocrine Camp Wannacure and Diabetes Education Program at VCU

Date       Date

Fellow Electing This Rotation:

My signature attests that I have read these goals, objectives and expectations and agree to abide by the conditions outlined above along with all relevant GME policies and procedures. I understand that I will be
evaluated on my performance by the faculty in Pediatric Endocrinology and that these evaluations will become a part of my permanent GME file. Any remedial or disciplinary actions or grievances will be forwarded through my program director to the GME Committee at VCU (if necessary) according to VCU Office of GME Policies.

_________________________  ________________
Fellow, Pediatric Endocrinology  Date
Goals:

The goals of this rotation are:

For the Fellow in Pediatric Endocrinology to become more familiar with the day to day manifestations, problems, and intensity of management for children with type 1 diabetes mellitus.

Objectives:

Following this rotation, the Fellow in Pediatric Endocrinology will be able to:

1. Describe the daily nutritional requirements for type 1 diabetes mellitus.
2. Describe the difficulties involved with providing adequate meals, snacks, and blood sugar management for children who are active in camp.
3. Utilize their skills in carbohydrate counting to assist in insulin dose selection.
4. Learn to recognize the subtle manifestations of hypoglycemia.
5. Participate in the multidisciplinary mental health aspects of living with type 1 diabetes mellitus.
Structure:

This will be a one week rotation in Camp Wannacure, sponsored by VCUHS.

Night call is not required.

Supervision will be provided by Gary Francis, MD, PhD, CDE, Melinda Penn, MD, Suzanne Bona, RN, CDE and Alyssa Wehrmeister, RD, CDE. The Fellow in Pediatric Endocrinology will participate in all aspects of the camp from planning to implementation. (S)He will be available during camp hours to assist patients in blood sugar management and will participate in group activities designed to increase diabetes self management education and self esteem.

Attendance will be required on a MON-FRI basis including all conferences held by Pediatric Endocrinology:

1. Fellow will be released from camp to attend his/her continuity clinic in Pediatric Endocrinology
2. Fellow will be released from camp to attend mandatory conferences:
   Pediatric Grand Rounds (TUES 0800-0900)
   Pediatric Endocrine Core Conference (THUR 0730-0830)
   Endocrine Grand Rounds (WED 430-530)
   Journal Club (WED 0730-0830)
3. Vacation will not be allowed.
4. Evaluations will be performed by Melinda Penn, MD compiled and reviewed with the Fellow by the Program Director in Pediatric Endocrinology for permanent retention in the Fellow Academic File.

Reading Assignments:
The Fellow in Pediatric Endocrinology is expected to complete any assigned reading for this rotation including
relevant basic nutrition text chapters, recommended articles, and syllabus (as used by RD, CDE).

Clinical Focus:
This is primarily an experiential rotation in which the fellow will develop an appreciation for the complexity of diabetes management in day to day life and to develop a better understanding of why patients and parents are often unable to adhere to prescribed methods of monitoring and treatment.

Gary L. Francis, MD, PhD, CDE  Alyssa Wehrmeister, RD, CDE
Program Director  Director
Pediatric Endocrine Fellowship, VCUPediatric Endocrine Camp Wannacure and Diabetes Education Program at VCU

Date       Date

Fellow Electing This Rotation:

My signature attests that I have read these goals, objectives and expectations and agree to abide by the conditions outlined above along with all relevant GME policies and procedures. I understand that I will be evaluated on my performance by the faculty in Pediatric Endocrinology and that these evaluations will become a part of my permanent GME file. Any remedial or disciplinary actions or grievances will be forwarded through
my program director to the GME Committee at VCU (if necessary) according to VCU Office of GME Policies.

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Fellow, Pediatric Endocrinology  Date

Fellowship in Pediatric Endocrinology 2011

Curriculum for Elective Rotation:

Genetics

Goals:

The goals of this rotation are:

For the Fellow in Pediatric Endocrinology to become familiar with the manifestations, progression and evolution of genetic disorders that commonly present to the pediatric endocrine clinic specifically the differential diagnosis, techniques for evaluation, and treatment.

For the Fellow in Pediatric Endocrinology to become better prepared to discuss these issues with patients and families in order to assist them in understanding the current and future implications of genetic disorders in children.

Objectives:

Following this rotation, the Fellow in Pediatric Endocrinology will be able to:

1. Describe the more common genetic disorders involving sex chromosome abnormalities (Turner Syndrome, Klinefelter Syndrome, Intersex Disorders).
2. Describe the more common genetic disorders involving carbohydrate metabolism (Glycogen storage disease, MSUD, MMA, etc).
3. Describe the most common genetic disorders involving fat metabolism (fatty acid oxidation disorders).
4. Describe the clinical and radiographic features of the more common skeletal dysplasias
5. Describe the techniques and limitations for routine karyotype, copy number variant analysis, FISH, and polymerase chain reaction (PCR).

Structure:

a. This will be a one month rotation in Clinical Genetics.

b. Clinical duties will be centered around the genetics clinic, inpatient wards, and the clinical genetics laboratory.

c. Night call is not required.

d. Supervision will be provided by the genetics Faculty assigned to clinic that day. The Fellow in Pediatric Endocrinology will be assigned patients in the genetics Clinic by the genetics Attending and is expected to obtain a specific history, physical examination, differential diagnosis, and plan for evaluation and/or treatment. These will be reviewed with the genetics Attending who will independently perform all relevant history and physical examination as required, discuss the case with the fellow, and review pertinent teaching points, errors, and omissions as appropriate. Patients admitted to the VCUHS requiring genetics consultation will be evaluated on admission and followed through their hospital stay by the Fellow in Pediatric Endocrinology.

e. Attendance will be required on a MON-FRI basis (SAT and SUN if in-patient consults are required) including all conferences attended by genetics with the following exceptions:

f. Fellow will be released from genetics clinic to attend his/her continuity clinic in Pediatric Endocrinology

g. Fellow will be released from genetics clinic to attend mandatory conferences:

a. Pediatric Grand Rounds (TUES 0800-0900)

b. Pediatric Endocrine Core Conference (WED 330-430)

c. Endocrine Grand Rounds (WED 430-530)

d. Journal Club (WED 0730-0830)

e. Endocrine Case Conference (WED NOON-100)

h. Vacation will be allowed if prior approval obtained from both the Program Director in Pediatric Endocrinology and genetics

i. Evaluations will be performed by the faculty in genetics, compiled and reviewed with the Fellow by the
faculty in genetics, and submitted to the Program Director in Pediatric Endocrinology for permanent retention in the Fellow Academic File.

Reading Assignments:
The Fellow in Pediatric Endocrinology is expected to complete any assigned reading for this rotation including relevant basic text chapters (Becker, Williams, DeGroot, Heritable Patterns of Human Malformation, etc), recommended articles, and syllabus (as used by genetics).

Case Presentation:
The Fellow in Pediatric Endocrinology is required to select a highly informative case from amongst the patients seen during this rotation and to prepare a case conference on this topic which will be presented to the Pediatric Endocrine Core Conference during the following month.

Clinical Focus:
Although it is not possible to list all the patients a Fellow might evaluate during this rotation, it is expected that the scope of patients evaluated will be representative of the field, will complement the knowledge base acquired from the study of pediatric endocrinology and will include:

- Turner Syndrome
- Klinefelter Syndrome
- Disorders of Sexual Differentiation
- Glycogen storage disease
- Defects in gluconeogenesis
- Fatty Acid Oxidation Disorders
- Skeletal Dysplasias
Fellow Electing This Rotation:

My signature attests that I have read these goals, objectives and expectations and agree to abide by the conditions outlined above along with all relevant GME policies and procedures. I understand that I will be evaluated on my performance by the faculty in genetics and that these evaluations will become a part of my permanent GME file. Any remedial or disciplinary actions or grievances will be forwarded through my program director to the GME Committee at VCU (if necessary) according to VCU Office of GME Policies.

_________________________  ________________
Fellow, Pediatric Endocrinology  Date
Fellowship in Pediatric Endocrinology 2011

Curriculum for Elective Rotation:

Imaging, Laboratory and RIA

Goals:

The goals of this rotation are:

For the Fellow in Pediatric Endocrinology to develop a more in-depth understanding of imaging modalities used in Pediatric Endocrinology and the measurement of serum hormones by RIA, ELISA, GC-MS, HPLC, etc.

For the Fellow in Pediatric Endocrinology to better understand the advantages and disadvantages of each, the reasons to select an imaging or testing methodology, and the limitations of these procedures.

Objectives:

Following this rotation, the Fellow in Pediatric Endocrinology will be able to:

1. Correctly interpret a pediatric bone age radiograph
2. Understand the rationale and limitations of the various techniques used to interpret bone age
3. Understand the differences in application, selection and interpretation of MRI, CT, US, and PET in children with endocrine disorders.
4. Understand the rationale and limitations of the various techniques used to measure hormones
5. Understand the differences in application, selection and interpretation of RIA, ELISA, GC-MS, MS-MS, HPLC and Bioplex.
Structure:

a. This will be a one month rotation divided between imaging (50%) and laboratory / RIA (50%).
b. Clinical duties will be centered around pediatric radiology department and the clinical pathology laboratory.
c. Night call is not required.
d. Supervision will be provided by the pediatric radiology or pathology faculty assigned that day. The Fellow in Pediatric Endocrinology will be assigned to the pediatric radiologist and will assist in the interpretation of all imaging performed by that radiologist. The Fellow is expected to attend the imaging sessions and to develop a differential diagnosis, and plan for evaluation as appropriate. These will be reviewed with the pediatric radiology. The Fellow will be assigned to the clinical pathology RIA laboratory where he/she will observe the specimen processing, handling, measurement of hormones and metabolites using the techniques of RIA, ELISA, GC-MS, MS-MS, HPLC and Bioplex. The pathologist will independently perform all examinations as required, discuss the results with the fellow, and review pertinent teaching points, errors, and omissions as appropriate.

e. Attendance will be required on a MON-FRI basis including all conferences attended by the imaging and laboratory faculty with the following exceptions:

f. Fellow will be released from clinic duties to attend his/her continuity clinic in Pediatric Endocrinology
g. Fellow will be released from clinic duties to attend mandatory conferences:
   a. Pediatric Grand Rounds (TUES 0800-0900)
   b. Pediatric Endocrine Core Conference (WED 330-430)
   c. Endocrine Grand Rounds (WED 430-530)
   d. Journal Club (WED 0730-0830)
   e. Endocrine Case Conference (WED NOON-100)

h. Vacation will be allowed if prior approval obtained from both the Program Director in Pediatric Endocrinology and the faculty in pediatric radiology and pathology

i. Evaluations will be performed by the faculty in radiology and pathology, compiled and reviewed with
the Fellow by the faculty, and submitted to the Program Director in Pediatric Endocrinology for permanent retention in the Fellow Academic File.

Reading Assignments:

The Fellow in Pediatric Endocrinology is expected to complete any assigned reading for this rotation including relevant basic text chapters (Becker, Williams, DeGroot, Heritable Patterns of Human Malformation, etc), recommended articles, and syllabus (as used by radiology or pathology).

Case Presentation:

The Fellow in Pediatric Endocrinology is required to select a highly informative case from amongst those seen during this rotation and to prepare a case conference on this topic which will be presented to the Pediatric Endocrine Core Conference during the following month.

Clinical Focus:

Although it is not possible to list all the patients a Fellow might evaluate during this rotation, it is expected that the scope of patients evaluated will be representative of the field, will complement the knowledge base acquired from the study of pediatric endocrinology and will include:

Bone age radiographs
US
CT
MRI
PET, PET-CT, SPECT
RIA, ELISA, GC-MS, MS-MS, HPLC and Bioplex
Fellow Electing This Rotation:

My signature attests that I have read these goals, objectives and expectations and agree to abide by the conditions outlined above along with all relevant GME policies and procedures. I understand that I will be evaluated on my performance by the faculty in radiology and pathology and that these evaluations will become
a part of my permanent GME file. Any remedial or disciplinary actions or grievances will be forwarded through my program director to the GME Committee at VCU (if necessary) according to VCU Office of GME Policies.

_________________________  ________________  
Fellow, Pediatric Endocrinology  Date  

Didactic Activities Calendar

**WEEKLY**

<table>
<thead>
<tr>
<th>Day</th>
<th>Time</th>
<th>Activity</th>
<th>Location</th>
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<tbody>
<tr>
<td>MON</td>
<td>0800</td>
<td>Morning Report</td>
<td>7th Floor Main Hosp</td>
</tr>
<tr>
<td>TUES</td>
<td>0800</td>
<td>Pediatric Grand Rounds</td>
<td>Sanger 1st Floor</td>
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<tr>
<td>WED</td>
<td>0730</td>
<td>Journal Club (Adult/Ped Endo)</td>
<td>Sanger 7th Floor</td>
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<tr>
<td>WED</td>
<td>1200</td>
<td>Case Conference (Adult/Ped Endo)</td>
<td>ACC 6</td>
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<tr>
<td>WED</td>
<td>1630</td>
<td>Endocrine Grand Rounds</td>
<td>North Hosp 9</td>
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<td>THUR</td>
<td>0730</td>
<td>Ped Endocrine Didactic</td>
<td>Pembroke</td>
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<td>THUR</td>
<td>0730</td>
<td>4th THUR Ped Endo Journal Club</td>
<td>Pembroke</td>
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<tr>
<td>FRI</td>
<td>0730</td>
<td>Morning Report</td>
<td>7th Floor Main Hosp</td>
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**BI-WEEKLY**

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<tr>
<td>1630</td>
<td>1st WED</td>
<td>Ped Endo Rad Rounds</td>
<td>Main 3 Rad Ped Reading Rm</td>
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**MONTHLY**

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<td>3rd WED</td>
<td>Pediatric Research Conf</td>
<td>Main Hosp Fac Conf Rm</td>
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**QUARTERLY**

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<tr>
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<td></td>
<td>Thursday Ped Endo Staff Meeting</td>
<td>Pembroke</td>
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<tr>
<td>1630</td>
<td>WED</td>
<td>WED Thyroid MultiDisciplinary</td>
<td>TBA</td>
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<td>1630</td>
<td>WED</td>
<td>WED Neuro-Surg Multidisciplinary</td>
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<tr>
<td>0730</td>
<td></td>
<td>Thursday Ped Endo CQI</td>
<td>Pembroke</td>
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SEMI-ANNUAL

0730 Thursday Eval-ILP Pembroke

ANNUAL

0730 Thursday Program Evaluation Pembroke
0730 Thursday 360 Evaluation Pembroke