

CURRICULUM

Emory Fellowship Training Program in Endocrinology, Metabolism, & Lipids Purpose

Training in Endocrinology and Metabolism is designed to allow fellows to acquire expertise as a consultant in the subspecialty. To achieve this goal, the educational activities of the program include outpatient and inpatient care, didactic case reviews covering pathophysiology, clinical presentation, diagnosis using static and dynamic hormonal testing, clinical biochemical analysis, radiographic evaluation and pathologic investigation, and treatment. A mentored research experience is provided with protected time and is considered mandatory and critical to develop the investigative and analytical skills of a superb clinical endocrinologist. Participants are incorporated into research conference schedules, as both presenters and evaluators, and participate in clinical and research literature review conferences.

Fellows gain experience with thyroid biopsy, and expand teaching experience through instruction of internal medicine residents. All activities in the program are under the supervision of attending faculty and the Program Director. Additional information regarding program policies can be obtained from the Division web site www.medicine.emory.edu/endo.

Educational Program

The goals and objectives are similar for all outpatient and inpatient clinical rotations, and are included in subsequent sections of this document. Goals and objectives are reviewed with the Fellow by the responsible attending at the initiation of each learning experience. The Fellow assigned to each rotation is responsible for maintaining a log of patients evaluated during the month, and identifying current, pertinent articles from the medical literature relating to the pathophysiology or treatment of these patients in the log. The Fellow is also responsible for providing these articles to the consulting ward team. The clinical log will be reviewed by the Program Director with the trainee during semi-annual evaluations.

Assignment to Clinical and Research Rotations

Fellows rotate between four facilities, Emory University Hospital and The Emory Clinic, EUHM, Grady Memorial Hospital, and the Atlanta VA Medical Center. Initial year training typically consists of 6-8 months of purely clinical exposure. Clinical months consist mainly of managing the in-patient consultative service for one of the four teaching facilities, but may include months with more intensive out-patient responsibilities. Rotation at each facility includes participation in site specific out-patient clinics. Examples of facility specific schedules are appended to this section. The remaining 4-6 months of the initial year are reserved for the Fellow to begin a mentored research experience. During the second year of Fellowship training, the number of research months is typically expanded, encompassing from 4-8 months depending on the level of engagement, success, and career goals of the Fellow. During in-patient months, the schedule for rounding will depend on the assigned faculty attending. Fellows should confirm rounding times with the rotation attending prior to starting the rotation. Both 1st and 2nd year fellows will gain experience in the interpretation of bone densitometry, thyroid ultrasound, and thyroid biopsy procedure and cytology interpretation.

Consistent an increased capacity, responsibilities for 2nd year Endocrinology Fellows with advanced training will be greater than for 1st year Fellows. 2nd year Fellows are expected to (a) carry more responsibility for teaching of the medical resident on service (b) participate in rotations in Pediatric Endocrinology, Reproductive Endocrinology, and Nutrition, and (c) participate in the design and administration conference schedules.

Continuous Out-patient Responsibilities

All Fellows, irrespective of participation on clinical or research rotations, will continue their participation in the Grady, EUHM, Endocrinology continuity clinics throughout their fellowship. During the second fellowship year, these Emory clinics are either continued, or curtailed to accommodate protected research time. During clinical months, all Fellows also maintain a Diabetes Continuity Clinic. This clinic meets twice monthly at the Atlanta VA Medical Center, and consists primarily of patients with Type 1 diabetes mellitus. During the initial two years of training, Fellows average at least between 2 and 3 half-day outpatient clinics per week.

Conferences

During all phases of their training, Fellows participate in five weekly conferences, both as presenters, and participant attendees. The weekly journal club reviews recent articles in clinical Endocrinology. In the weekly Endocrine Grand Rounds researchers from Emory or elsewhere present original research in endocrinology related fields. During the Endocrine Board Review Course Fellows prepare and present concise reviews of topics in clinical endocrinology to each other and an attending. The Grady Noon conference is a highly structured didactic lecture series completing a survey of clinical endocrinology every two years, and is presented by a broad range of both endocrine and non-endocrine faculty, and the Fellows. Finally, the Endocrine Case of the Week, is a weekly clinical case presentation conference during which Fellows strive to reconstruct a complete pathophysiologic, presentation, diagnostic, and treatment, picture of recent interesting cases, utilizing accessory services, such as surgery, pathology, and radiology. Fellows present at monthly multidisciplinary thyroid tumor board.

General Description of Inpatient and Outpatient Experience:

All trainees, regardless of hospital rotation, attend The Grady Healthcare or EUHM weekly. This clinic is supervised by Grady or Emory Clinic faculty. In addition to new consultations and follow-up of inpatient consultation, this clinic serves as a continuity of care for patients assigned to each trainee. Trainees develop a cadre of patients with a diversity of disorders that cover the spectrum of endocrinology experience.

The clinic enrolls approximately 60% female, 40% male patients. Trainees are responsible for initial evaluation of assigned patients, including a written work-up, outlining treatment and follow-up plans, and presentation to the attending physician for approval. The execution of responsibilities extends to ordering laboratory tests and imaging (when appropriate), at attaining advise consultation from other subspecialty services, and performing testing protocols and thyroid fine needle aspirations when indicated. In follow-up, trainees review the internal history and data, interpret the results of their



investigations and evaluate responses to therapy. Patients are examined for signs and symptoms of disease progression and complication. They are responsible for maintaining contact with the referring/primary physician by letter, telephone, and/or email. All activities occur under attending physician supervision. Although Grady Endocrine Clinic is a major focus of continuity of care, trainees also provide continuity of care at EUHM (discussed below). Trainees on the Grady in-patient rotation also attend clinic at the Diabetes Unit 4 half-days/month. This experience incorporates the care of types 1 and 2 diabetes in adults (18 years - geriatric), steroid induced diabetes, and diabetes of pancreatic insufficiency. The responsibilities and supervision are identical to the Endocrinology Clinic. Trainees interact with the retinal screening technician, podiatrist, and diabetes educator in this clinic. One Grady faculty attending supervises this clinic.

The VA Medical Center has 5 clinics, Monday AM diabetes, Tuesday AM diabetes, and Tuesday PM Endocrine. Clinics, Wednesday AM Lipids, Friday morning thyroid biopsy clinic. Clinics are supervised by Drs. Nanes, Rhee, Olson, and Thule. Drs. Sweeney and Burgess are also present with the supervising faculty to teach. The Tuesday AM diabetes clinic is attended semi-monthly by all trainees regardless of hospital rotation. 3 trainees share the 1st and 3rd Tuesday and 3 trainees share the 2nd and 4th Tuesday of each month. This clinic provides an opportunity to see an enriched population of patients with type 1 diabetes, steroid induced diabetes, and diabetes of pancreatic insufficiency. In addition, trainees follow the approximately 30-35 insulin pump patients at the center. Patients with type 1 diabetes and some difficult type 2 diabetics are followed continuously by the trainee (50% of visits seen by a trainee at each clinic). Thus, this clinic supplements the continuity experience at Grady and Emory. VA Endocrinology and Diabetes clinics are 20% female, 80% male. The Endocrinology resident provides all aspects of patient care in a supervised setting with the VA attending physicians. As at Grady, Fellows do the initial and follow-up evaluations, order appropriate laboratory tests, imaging, and additional consultations with the diabetes educator, nutritionist, podiatrist (on site) or subspecialty services. Fellows must become facile in the use of home blood glucose monitoring devices and their computer interface in the clinic. These are used for graphical evaluation of glycemia and the response to therapy and as a teaching aid for patients. A completely electronic medical record system, including viewing of X-rays and CAT Scans was pioneered by the Endocrine Section at the VA and is now in routine use hospital-wide. Thus, Fellows have an opportunity to quickly evaluate their own progress by instant graphic display of patient's HBA1C, lipid profiles, renal function, blood pressure, and other parameters. This information contributes toward Fellow self-assessment. The trainee on the Atlanta VA rotation also attends a Monday Diabetes Clinic a Tuesday Endocrine Clinic, and a Wednesday Lipid Clinic. As at Grady, these clinics offer an experience that covers the spectrum of Endocrinology with the exception of adolescent and pediatric endocrinology and female fertility (but it includes hirsutism, PCOS, and menopause). A strength of the training program is the three-hospital experience, which, in total, covers all required areas. A full time Pharmacist/PhD also contributes to patient care and education at the VA. The PharmD reviews patient medication profiles and trainee prescribing practice for discussion with the trainees during sign-out with the attending faculty). While on VA rotation, trainees attend one of the 4 hour diabetes patient education classes administered by a diabetes nurse educator (RN, NP, CDE). In this way, trainees have the opportunity to learn patient education techniques in areas of general nutrition goals, teaching for initiation of insulin therapy, advice for sick days, hyper- and hypoglycemia, and use of carbohydrate counting. These areas were noted in the description of the Grady experience (above).

The Grady Healthcare Inpatient Service responds to inpatient consultations at Grady Hospital. Endocrinology Fellows respond to medical, surgical, and OB/GYN consults for all areas of diabetes and endocrinology. These patients are often at a more advanced stage of disease and its complications.

The VA Inpatient Service responds to inpatient consultations at the VA Medical Center. Endocrinology residents respond to medical and surgical consults for all areas of diabetes and endocrinology. The Emory Healthcare Inpatient Service is limited to advanced 1st and 2nd year Endocrinology Fellows. This service responds to inpatient consultations at Emory Hospital. The service has its own attending from the Emory faculty, distinct from the outpatient rotation. Endocrinology Fellows respond to medical and surgical consults for all areas of diabetes and endocrinology.

Thyroid fine needle aspiration biopsies and provocative endocrine testing are done in the outpatient setting at all three hospitals under the direct supervision of the attending faculty.

Level of fellow supervision

All outpatients and inpatients seen in the rotations must be signed out to the attending faculty, who also see the patient. All notes on patients must be reviewed and co-signed by the attending. There are no service components to the rotations in which Fellows see patients without attending oversight. According to Emory University policy, Fellows are not required, and do not care for non-teaching patients during any of their rotations, except under emergent circumstances.

Health promotion

Fellows are expected to focus on preventive issues in diabetes care and other endocrinology disorders and include this in their treatment plan, notes, and sign-out to the attending.

Cross cultural and socioeconomic issues

Fellows will be given an opportunity to attend a seminar on cross cultural and socioeconomic issues as they affect patient care. The Emory office of GME gives this seminar.

Ethical considerations

Fellows are expected to attend the office of GME program of ethics in medicine. Ethical issues will be included in the sign-out and case conferences in the rotation.

Occupational, environmental, and behavioral issues: Fellows are expected to include reading related to these areas and particular focus on the effect of diabetes on occupational and behavioral outcomes.

Humanistic Qualities of the Resident



Note that fellows are evaluated for a high level of expected humanistic qualities based on observation, patient and family evaluations, and staff assessment.



Program Content

Fellows should refer to the following program content as they prepare for the Friday Morning Endocrine Board Review conference. Fellows are expected to take turns systematically presenting this list of specific Endocrinology and Metabolism topics over a two-year period in the program. A faculty member will supervise this conference. This list is excerpted from the ACGME.

1. Thyroid disorders, including
 - a. hyperthyroidism and hypothyroidism
 - b. nodular thyroid diseases
 - c. thyroid cancer
 - d. goiter
 - e. thyroiditis, including chronic, silent, subacute, and autoimmune
 - f. thyroid function test abnormalities
2. Hypothalamic and pituitary disorders, including
 - a. pituitary tumors of all types, with particular experience in the diagnosis and management of prolactinoma, acromegaly, Cushing's disease, and clinically nonfunctioning tumors
 - b. craniopharyngeoma and other space occupying and infiltrative disorders of the pituitary and hypothalamic region
 - c. hypopituitarism
 - d. growth hormone disorders
 - e. hypothalamic insufficiency
 - f. SIADH
 - g. diabetes insipidus (primary and nephrogenic)
 - h. galactorrhea
3. Type 1 and Type 2 diabetes mellitus, including
 - a. patient monitoring and treatment objectives in adolescents and adults
 - b. acute and chronic complications, including
 - i. diabetic ketoacidosis
 - ii. hyperosmolar non-ketotic syndromes
 - iii. hypoglycemia
 - iv. microvascular and macrovascular disease including
 1. diabetic retinopathy
 2. diabetic nephropathy
 3. diabetic neuropathy
 - v. dermatologic aspects of diabetes
 - vi. coronary heart disease
 - vii. peripheral vascular disease
 - viii. cerebral vascular disease
 - ix. infections in the diabetic patient
 - x. gestational diabetes mellitus
 - c. diabetes mellitus in the pregnant patient 20
 - d. the surgical patient with diabetes mellitus
 - e. patient education



- f. psychosocial issues
 - g. dietary principles
4. Hypoglycemic syndromes, including the spectrum of insulinoma and other causes
 5. The diagnosis and management of lipid and lipoprotein disorders
 6. Genetics and genetic counseling as it relates to patients with endocrine and metabolism disorders
 7. The diagnosis and management of primary and secondary hypertension
 8. Disorders of bone and mineral metabolism, including
 - a. hyperparathyroidism and other causes of hypercalcemia
 - b. hypoparathyroidism and other causes of hypocalcemia
 - c. metabolic bone diseases, with particular emphasis on the diagnosis and management of osteoporosis
 - d. evaluation and prevention of kidney stones
 - e. Paget's disease
 - f. osteomalacia and disorders of vitamin D and phosphorus metabolism
 9. Disorders of the adrenal cortex and medulla including:
 - a. benign and malignant adrenal tumors
 - b. adrenogenital syndromes
 - c. Cushing's syndrome, including drug-induced
 - d. adrenal cortex hypofunction- cause and therapy
 - e. pheochromocytoma
 - f. primary aldosteronism
 10. Disorders of fluid, electrolyte, and acid-base metabolism, including
 - a. hypernatremia and hyponatremia
 - b. hyperkalemia and hypokalemia
 - c. metabolic acidosis
 - d. metabolic alkalosis
 - e. Disorders of magnesium and phosphorous metabolism
 11. Endocrine aspects of psychiatric diseases
 12. Endocrine aspects of aging, with particular emphasis on the care of geriatric patients with endocrine disease and diabetes and the endocrine changes associated with aging
 13. Autoimmune polyglandular failure syndrome
 14. Endocrine emergencies, including
 - a. hypercalcemia and hypocalcemia
 - b. severe hypo- and hyperthyroidism
 - c. adrenal insufficiency
 - d. pituitary apoplexy
 15. Parenteral nutritional support
 16. Nutritional disorders
 - a. obesity - pathophysiology, diagnosis and management
 - b. anorexia nervosa and bulimia
 17. Hormone-producing neoplasms, particularly carcinoid syndromes, ectopic hormone production, islet cell tumors and multiple endocrine neoplasia syndromes



18. Female and male reproduction, including
 - a. primary and secondary amenorrhea
 - b. hirsutism/virilization
 - c. dysfunctional uterine bleeding

 - d. infertility
 - e. menopause
 - f. testicular tumors
 - g. erectile dysfunction
 - h. gynecomastia
 - i. hypogonadism
19. Endocrine adaptations and maladaptations to systemic diseases, including effects on the thyroidal, adrenal, and gonadal axes.

Technical and Other Skills

Fellows should have experience in the performance of endocrine clinical laboratory and radionuclide studies and basic laboratory techniques, including quality control, quality assurance, and proficiency standards. Attending supervised learning is directed so that the Fellow acquires experience and skill in the following areas:

1. The interpretation of laboratory tests; immunoassays; and radionuclide, ultrasound, radiologic, and other imaging studies for the diagnosis and treatment of endocrine and metabolic disease,
2. The effects of a variety of non-endocrine disorders on laboratory and imaging studies and performance and interpretation of stimulation and suppression tests.
3. Performance and cytologic interpretation of fine needle aspiration of the thyroid.
4. Indication and interpretation of quantitative digital radiography and other tests used in the management of osteoporosis and other metabolic bone diseases.
5. Management of adolescent and adult patients of all ages with diabetes mellitus, including but not limited to the following aspects of the disease:
 - a. The utilization and interpretation of autoimmune markers of Type 1 diabetes in patient management and counseling
 - b. Prescription of exercise programs
 - c. Rationale for and calculation of diabetic diets
 - d. Oral antidiabetic therapy and non insulin injectables
 - e. The use of intravenous insulin in acute decompensated diabetes mellitus
 - f. Chronic insulin administration, including the use of all varieties of insulin delivery systems
 - g. Glucose monitoring devices
 - h. Funduscopic examination, recognition, and appropriate referral of patients with diabetic retinopathy
 - i. Foot care
 - j. Psychosocial effects of diabetes mellitus on patients and their families
 - k. Patient and community education Formal Instruction

The formal curriculum of the program provides specific instruction in the following:

1. Pathogenesis and epidemiology of diabetes mellitus
2. Genetics as it relates to endocrine diseases
3. Developmental endocrinology, including growth and development, sexual differentiation, and pubertal maturation
4. Endocrine physiology and pathophysiology in systemic diseases and principles of hormone action
5. Biochemistry and physiology, including cell and molecular biology and immunology, as they relate to endocrinology and metabolism
6. Signal transduction pathways and biology of hormone receptors

Method of evaluation:

The Emory Fellowship Training Program in Endocrinology, Metabolism, & Lipids uses faculty evaluation of the major areas outlined by the ACGME including: Patient care, medical knowledge, practiced-based learning and improvement, interpersonal and communication skills, professionalism, and system-based practice. A blank evaluation forms will be completed by the attending in New Innovations software system at the end of each rotation. The outcomes assessment within these categories include the assessment tools of observation of direct patient encounter, 360 degree evaluation (patients, nurses, clerical staff, and program administrator or the resident performance), multiple choice question exam (annual), thyroid biopsy model practice (1st year), and chart review. Monthly and biannual summary evaluations will be done as well as a cumulative final evaluation at the end of Fellowship.

Feedback from the Fellows regarding their experiences during various rotations and the performance of individual attendings are solicited at the end of each rotation. To assure anonymity Fellows have the option of completing these forms by computer or by submitting paper evaluations.

Description of Rotations, Goals and Objectives

(please see attached schedule for all rotations)

Emory Health Care

The Emory Clinic

Emory University Hospital

Grady Health Care

VA Medical Center

EUHM

THE EMORY CLINIC, EUH & EUHM

The Emory Clinic: Endocrine Fellow Rotation

We feel confident your months of subspecialty rotation in Endocrinology, Metabolism, and Lipids at the Emory Clinic will provide you with a rich clinical experience dealing with Endocrinology. You will be asked to work in conjunction with a variety of Endocrinology faculty members with diverse areas of clinical interest and expertise. In addition, you will be exposed to current research in Endocrinology and research pursued here at Emory. At the conclusion of your rotation you will be asked to participate in an exit interview, and complete an evaluation of the rotation. Your evaluation will include input from attending physicians, patients and clinic staff with whom you have worked.

Overview:

The Out-patient Endocrinology service provides consultative support to Internal Medicine, GYN, Psychiatry and Mental Health, the Emergency Department, and General Medicine services, and all general and subspecialty surgical services within The Emory Clinic. Emory Healthcare serves as a primary, secondary, and tertiary care facility. You will see patients referred for types 1 and 2 diabetes, non-diabetes endocrine disorders, and also rare metabolic and/or inherited endocrine disorders. Fellows are supervised at all times by a physician from the Division of Endocrinology, board certified in Endocrinology, Diabetes, & Metabolism. You will attend up to 8 half-day endocrinology clinic sessions per week, examining and evaluating patients in conjunction with the supervising attending Endocrinologist.

General Educational Goals:

- .. Principles of outpatient management of type 1 and type 2 diabetes mellitus.
- .. Principles of diagnosing and treating goiter, hyper-, and hypothyroidism, and thyroid cancers.
- .. Diagnosis and treatment of adrenal disorders.
- .. Diagnosis and management of neuroendocrine problems.
- .. Diagnosis and management of disorders of calcium/bone metabolism
- .. Diagnosis and management of fertility problems in men and women.
- .. Endocrine disorders of neoplastic/paraneoplastic origin.
- .. Understanding statistical evaluation, medical literature, and considering current controversies in Endocrinology, ethics in research and medicine.
- .. Ultrasound evaluation of the thyroid gland and fine needle aspiration of the thyroid
- .. Interpretation of bone densitometry (DEXA) scans

Fellow responsibilities:

Consultation requests are forwarded to the Fellow by the attending. After initial clinical review and assessment of all available information, including, but not limited to, the history and physical examination, and the available medical record, the Fellow then presents all the data to the attending, with whom a formal assessment and treatment plan is devised. Fellows are expected to complete all dictations, and assigned correspondences in a timely manner.

During periods that a resident physician in Internal Medicine is also a member of the consultative team, the Fellow will serve as the primary supervisor of the resident. The Fellow is responsible for directing evaluation of the literature and endocrine reference works. This responsibility extends to assuring the accuracy and timeliness of clinic work product by the resident. Recognizing that Fellows just beginning their training will, in general, be less facile, and become more competent with experience, responsibilities and expectations will increase continuously for the Fellows. These increasing responsibilities and expectations are summarized in the following stepped

Goals & Objectives.

In addition to Emory Clinic Duties, Fellows are expected to continue attendance at all weekly scheduled divisional conferences and lecture series.

You should have an average of 1 day off per week free of all call, averaged over each month of this rotation. Work responsibilities on this rotation will not exceed 80 hours/week.

For questions or discussion of problems, please contact Dr. Patrick Bowen (Fellowship Program Coordinator at the Emory Clinic / Emory University Hospital site) at (404) 727-4260 or the Divisional Office at (404) 727-1391, the program director 404-727-7254

Goals & Objectives:

1st year of fellowship:

Goals:

- 1) To gain practical clinical experience in the diagnosis and detection of endocrinologic abnormalities, and their appropriate and cost effective treatment. This includes eliciting the basic critical elements of a medical history focused on endocrine diseases, performing an endocrine focused physical examination, ordering and correctly interpreting appropriate laboratory and imaging based evaluative tests, and initiating an appropriate treatment plan. (Medical Knowledge)
- 2) To advance verbal and written communication skills with other health care professionals. (Communication)
- 3) To enhance use of physical library and electronic database information retrieval. (Systems Based Practice)
- 4) To enhance fellow's ability to engage in scientific discourse among health care providers and educate with respect to clinical endocrinology. (Professionalism)

Objectives:

- 1) Accurately and effectively fulfill all requests for consultative support involving questions of endocrinology at The Emory Clinic during assigned months.

a. Metric: Fellow will maintain a clinical portfolio of all patient encounters that include the patient name, the endocrine diagnosis, and the outcome of the consultation, date and time of the consultation request, date and time of staffing by the attending, and final resolution. This list will be maintained by the fellow for yearly self review. Attending will review this portfolio at the conclusion of the month, and evaluate for timely completion of consults, exceptional cases that might be used for Case of the Week, diversity of endocrine cases, and identification of organization, administrative or communication problems. (Practice Based Learning)

2) Demonstrate facility with patient interviewing, medical history taking, and in eliciting diagnostically relevant findings on physical examination, all with a focus on endocrine diseases.

a. Metric: Attending will observe and score fellow while interviewing, obtaining a medical history, and performing a physical examination, all with a focus on endocrine diseases. (Medical Knowledge)

3) Demonstrate effective, prompt, and professional communication of all findings and evaluations to the attending.

a. Metric: Fellow will be evaluated on effectiveness in communication. (Communication)

4) Document validity of clinical decisions by demonstrating support in the medical literature.

a. Metric: Fellow will document literature support for clinical decisions pertaining to endocrinology by producing hard copies of scientific literature in support of key treatment or evaluative decisions made during the month. In general this should be on the order of at least one paper from the literature per day. These papers should be included in the fellows' clinical portfolio, and associated with the appropriate clinical case. (Medical Knowledge, Practice Based Learning)

2nd year of fellowship:

Goals:

1) All of the goals outlined for 1st year fellows, as noted above.

2) In addition to the above, the second year fellow should demonstrate advanced educational, communicative, and organizational skills, allowing him/her to arrive at appropriate treatment plans and goals mostly independently. (Professionalism)

Objectives:

1) All of the objectives for 1st year fellows, as noted above.

2) The second year fellow should demonstrate a deeper understanding of molecular principles of endocrine disease, and be able to effectively communicate these aspects to the supervising attending.



a. Metric: The Attending will assess extent of knowledge of the molecular mechanisms of an endocrine disease via verbal query.

Emory University Hospital:

Goals and Objectives

Inpatient Endocrinology Consultative Service

Emory University Fellowship Program

Endocrinology, Metabolism, & Lipids

Version: 22Jan08

First Approved by Curriculum Committee: 3/31/08

Last Reviewed by Curriculum Committee: May 28, 2013

Responsible Faculty: Patrick Bowen, MD, The Emory Clinic

Overview: The inpatient Endocrinology service provides consultative support to Internal Medicine, GYN, Psychiatry and Mental Health, the Emergency Department, and General Medicine services, intensive care units, and all general and subspecialty surgical services within Emory University Hospital. While supervised at all times by a physician from the Division of Endocrinology, board certified in Endocrinology, Diabetes, & Metabolism, the consult team also includes a Fellow in Endocrinology, and often at least one resident physician in Internal Medicine, who are assigned to the service for periods of one month. The responsible attending physicians rotate from every two weeks to monthly.

Fellow responsibilities: Consultation requests are to be forwarded to the Fellow. After initial clinical review and assessment of all available information, including, but not limited to, the history and physical examination, and the available medical record, the Fellow then presents all the data to the attending, with whom a formal assessment and treatment plan is devised. Both these actions should be completed within 24 hours of the consultation request being placed. During periods that a resident physician in Internal Medicine is also a member of the consultative team, the Fellow will serve as the primary supervisor of the resident. The Fellow is responsible for directing evaluation of the literature and endocrine reference works. This responsibility extends to assuring the accuracy and timeliness of clinic work product by the resident.

Recognizing that Fellows just beginning their training will, in general, be less facile, and become more competent with experience, responsibilities and expectations will increase continuously for the Fellows. These increasing responsibilities and expectations are summarized in the following stepped Goals & Objectives.

Goals & Objectives:

1st year of fellowship:

Goals:

5) To gain practical clinical experience in the diagnosis and detection of endocrinologic abnormalities, and their appropriate and cost effective treatment. This includes eliciting the basic critical elements of a medical history focused on endocrine diseases, performing an endocrine focused physical examination, ordering and correctly interpreting appropriate laboratory and imaging based evaluative tests, and initiating an appropriate treatment plan. (Medical Knowledge)

- 6) To advance verbal and written communication skills with other health care professionals. (Communication)
- 7) To enhance use of physical library and electronic database information retrieval. (Systems Based Practice)
- 8) To enhance fellow's ability to engage in scientific discourse among health care providers and educate with respect to clinical endocrinology. (Professionalism)

Objectives:

- 5) Accurately and effectively fulfill all requests for consultative support involving questions of endocrinology at Emory University Hospital during assigned months.
 - a. Metric: Fellow will maintain a clinical portfolio of all consult requests that include the patient, the endocrine diagnosis, and the outcome the consultation, date and time of the consultation request, date and time of staffing by the attending, and final resolution. This list will additionally be maintained by the fellow for yearly self review. Attending will review this portfolio at the conclusion of the month, and evaluate for timely completion of consults, exceptional cases that might be used for Case of the Week, diversity of endocrine cases, and identification of organization, administrative or communication problems. (Practice Based Learning)
- 6) Demonstrate facility with patient interviewing, medical history taking, and in eliciting diagnostically relevant findings on physical examination, all with a focus on endocrine diseases.
 - a. Metric: Attending will observe and score fellow while interviewing, obtaining a medical history, and performing a physical examination, all with a focus on endocrine diseases. (Medical Knowledge)
- 7) Demonstrate effective, prompt, and professional communication of all findings and evaluations to the attending.
 - a. Metric: Fellow will be evaluated on effectiveness in communication. (Communication)
- 8) Document validity of clinical decisions by demonstrating support in the medical literature.
 - a. Metric: Fellow will document literature support for clinical decisions pertaining to endocrinology by producing hard copies of scientific literature in support of key treatment or evaluative decisions made during the month. In general this should be on the order of at least one paper from the literature per day. These papers should be included in the fellows' clinical portfolio, and associated with the appropriate clinical case. (Medical Knowledge, Practice Based Learning)

2nd year of fellowship:

Goals:

- 3) All of the goals outlined for 1st year fellows, as noted above.
- 4) In addition to the above, the second year fellow should demonstrate advanced educational, communicative, and organizational skills, allowing him/her to arrive at appropriate treatment plans and goals mostly independently. (Professionalism)



Objectives:

3) All of the objectives for 1st year fellows, as noted above.

4) The second year fellow should demonstrate a deeper understanding of molecular principles of endocrine disease, and be able to effectively communicate these aspects both the participating Internal Medicine resident on the service, but also those requesting endocrine consultation.

a. Metric: Following education by the Fellow about the molecular mechanisms of an endocrine disease the Attending will query an Internal Medicine team that has consulted the endocrine service to verify educational efficacy.

Grady Memorial Hospital

Goals and Objectives

Inpatient Endocrinology Consultative Service

Emory University Fellowship Program

Endocrinology, Metabolism, & Lipids

Version: 28Jan08

First Approved by Curriculum Committee: January 2008

Last Reviewed by Curriculum Committee: May 28, 2013

Responsible Faculty: Guillermo Umpierrez, MD, Grady Memorial Hospital

Overview: The inpatient Endocrinology service provides consultative support to Internal Medicine, OB/GYN, Psychiatry and Mental Health, the Emergency Department, and General Medicine services, and all general and subspecialty surgical services within Grady Memorial Hospital. While supervised at all times by a physician from the Division of Endocrinology, board certified in Endocrinology, Diabetes, & Metabolism, the consult team also includes a Fellow in Endocrinology, often at least one resident physician in Internal Medicine, and occasionally a medical or PA student(s), who are assigned to the service for periods of one month. The responsible attending physicians rotate every 1-2 weeks.

Fellow responsibilities: Consultation requests are to be received by the Fellow. After initial clinical review and assessment of all available information, including, but not limited to, the history and physical examination, and the available medical record, the Fellow then presents all consult requests to the attending, with whom a formal assessment and treatment plan is devised.

Both these actions should be completed within 24 hours of the consultation request being placed. During periods that a resident physician in Internal Medicine or a student is also a member of the consultative team, the Fellow will serve as the primary supervisor of the resident and student. The Fellow is responsible for directing evaluation of the literature and endocrine reference works. This responsibility extends to assuring the accuracy and timeliness of clinic work product by the resident.

Recognizing that Fellows just beginning their training will, in general, be less facile, and become more competent with experience, responsibilities and expectations will increase continuously for the Fellows. These increasing responsibilities and expectations are summarized in the following stepped Goals & Objectives.

Goals & Objectives:

1st year of fellowship:

Goals:

9) To gain practical clinical experience in the diagnosis and detection of endocrinologic abnormalities, and their appropriate and cost effective treatment. This includes eliciting the basic critical elements of a medical history focused on endocrine diseases, performing an endocrine focused physical examination,

ordering and correctly interpreting appropriate laboratory and imaging based evaluative tests, and initiating an appropriate treatment plan. (Medical Knowledge)

10) To advance verbal and written communication skills with other health care professionals. (Communication)

11) To enhance use of physical library and electronic database information retrieval. (Systems Based Practice)

12) To enhance fellow's ability to engage in scientific discourse among health care providers and educate with respect to clinical endocrinology. (Professionalism)

Objectives:

9) Accurately and effectively fulfill all requests for consultative support involving questions of endocrinology at Grady Memorial Hospital during assigned months.

a. Metric: Fellow will maintain a clinical portfolio of all consult requests that include the patient, the endocrine diagnosis, and the outcome of the consultation, date and time of the consultation request, date and time of staffing by the attending, and final resolution. This list will additionally be maintained by the fellow for yearly self-review. Attending will review this portfolio at the conclusion of the month, and evaluate for timely completion of consults, exceptional cases that might be used for Case of the Week, diversity of endocrine cases, and identification of organization, administrative or communication problems. (Practice Based Learning)

10) Demonstrate facility with patient interviewing, medical history taking, and in eliciting diagnostically relevant findings on physical examination, all with a focus on endocrine diseases.

a. Metric: Attending will observe and score fellow while interviewing, obtaining a medical history, and performing a physical examination, all with a focus on endocrine diseases. (Medical Knowledge)

11) Demonstrate effective, prompt, and professional communication of all findings and evaluations to the attending.

a. Metric: Fellow will be evaluated on effectiveness in communication. (Communication)

12) Document validity of clinical decisions by demonstrating support in the medical literature.

a. Metric: Fellow will document literature support for clinical decisions pertaining to endocrinology by producing hard copies of scientific literature in support of key treatment or evaluative decisions made during the month. In general this should be on the order of at least one paper from the literature per day. These papers should be included in the fellows' clinical portfolio, and associated with the appropriate clinical case. (Medical Knowledge, Practice Based Learning)

2nd year of fellowship:

Goals:

- 5) All of the goals outlined for 1st year fellows, as noted above.
- 6) In addition to the above, the second year fellow should demonstrate advanced educational, communicative, and organizational skills, allowing him/her to arrive at appropriate treatment plans and goals mostly independently. (Professionalism)

Objectives:

- 5) All of the objectives for 1st year fellows, as noted above.
- 6) The second year fellow should demonstrate a deeper understanding of molecular principles of endocrine disease, and be able to effectively communicate these aspects both the participating Internal Medicine resident on the service, but also those requesting endocrine consultation.
 - a. Metric: Following education by the Fellow about the molecular mechanisms of an endocrine disease the Attending will query an Internal Medicine team that has consulted the endocrine service to verify educational efficacy.

Attendings are to review these goals and objectives with the Endocrinology Fellow assigned to this facility at the initiation of each monthly rotation. Fellows will receive and acknowledge receipt of Goals and objectives from New Innovations system prior to the start of their rotations.

Veterans Affairs Medical Center

Goals and Objectives

Inpatient Endocrinology Consultative Service
Emory University Fellowship Program
Endocrinology, Metabolism, & Lipids
Version: 22Jan08
First Approved by Curriculum Committee: 3/31/08
Last Reviewed by Curriculum Committee: May 28, 2013
Responsible Faculty: Peter Thulé, MD, Atlanta VAMC

Overview: The inpatient Endocrinology service provides consultative support to Internal Medicine, Psychiatry and Mental Health, the Emergency Department, and General Medicine services, and all general and subspecialty surgical services within the Atlanta VA Medical Center (VAMC). While supervised at all times by a VA Staff Physician board certified in Endocrinology, Diabetes, & Metabolism, the consult team also includes a Fellow in Endocrinology, and often at least one resident physician in Internal Medicine, who are assigned to the service for periods of one month. The responsible attending physicians rotate monthly.

Fellow responsibilities: Consultation requests are to be received electronically by the Fellow. After initial clinical review and assessment of all available information, including, but not limited to, the history and physical examination, and the available medical record, the Fellow then presents all consult requests to the attending, with whom a formal assessment and treatment plan is devised. Both these actions should be completed within 24 hours of the consultation request being placed. During periods that a resident physician in Internal Medicine is also a member of the consultative team, the Fellow will serve as the primary supervisor of the resident. The Fellow is responsible for directing evaluation of the literature and endocrine reference works. This responsibility extends to assuring the accuracy and timeliness of clinic work product by the resident.

Recognizing that Fellows just beginning their training will, in general, be less facile, and become more competent with experience, responsibilities and expectations will increase continuously for the Fellows. These increasing responsibilities and expectations are summarized in the following stepped Goals & Objectives.

Goals & Objectives:

1st year of fellowship:

Goals:

13) To gain practical clinical experience in the diagnosis and detection of endocrinologic abnormalities, and their appropriate and cost effective treatment. This includes eliciting the basic critical elements of a medical history focused on endocrine diseases, performing an endocrine focused physical examination, ordering and correctly interpreting appropriate laboratory and imaging based evaluative tests, and initiating an appropriate treatment plan. (Medical Knowledge)

14) To advance verbal and written communication skills with other health care professionals.
(Communication)

15) To enhance use of physical library and electronic database information retrieval. (Systems Based Practice)

16) To enhance fellow's ability to engage in scientific discourse among health care providers and educate with respect to clinical endocrinology. (Professionalism)

Objectives:

13) Accurately and effectively fulfill all requests for consultative support involving questions of endocrinology at the Atlanta VAMC during assigned months.

a. Metric: Fellow will maintain a clinical portfolio of all consult requests that include the patient, the endocrine diagnosis, and the outcome the consultation, date and time of the consultation request, date and time of staffing by the attending, and final resolution. This list will additionally be maintained by the fellow for yearly self review. Attending will review this portfolio at the conclusion of the month, and evaluate for timely completion of consults, exceptional cases that might be used for Case of the Week, diversity of endocrine cases, and identification of organization, administrative or communication problems. (Practice Based Learning)

14) Demonstrate facility with patient interviewing, medical history taking, and in eliciting diagnostically relevant findings on physical examination, all with a focus on endocrine diseases.

a. Metric: Attending will observe and score fellow while interviewing, obtaining a medical history, and performing a physical examination, all with a focus on endocrine diseases. (Medical Knowledge)

15) Demonstrate effective, prompt, and professional communication of all findings and evaluations to the attending.

a. Metric: Fellow will be evaluated on effectiveness in communication. (Communication)

16) Document validity of clinical decisions by demonstrating support in the medical literature.

a. Metric: Fellow will document literature support for clinical decisions pertaining to endocrinology by producing hard copies of scientific literature in support of key treatment or evaluative decisions made during the month. In general this should be on the order of at least one paper from the literature per day. These papers should be included in the fellows' clinical portfolio, and associated with the appropriate clinical case. (Medical Knowledge, Practice Based Learning)

17) Demonstrate procedural skills in the Endocrine FNA Clinic. Fellow will develop procedures and plan under the guidance of an attending VA Staff Endocrinologist. Fellow will demonstrate understanding of the cost-effective, and evidence-based evaluation of a thyroid nodule. The fellow shall be able to extract relevant information during a focused patient interview and examination, present the data accurately, clearly, and succinctly to the attending physician, educate the patient about the available options for

appropriate evaluation, when necessary order further appropriate tests, determine the utility of ultrasound guidance, perform and document indicated fine needle aspiration of the thyroid (thyroid FNA), review the results with a cytopathologist, and inform the patient of appropriate diagnostic or therapeutic steps and follow-up. (Medical Knowledge, Practice Based Learning)

- a. Metric: Generate documentation confirming completion of a consult request, complete consent documentation, demonstrate facility with bedside thyroid ultrasound, successful aspiration of thyroid cells, and document a plan with appropriate requests for further tests and treatment.
- b. Metric: Maintain a log of procedures and outcomes reviewed annually with fellowship director.

2nd year of fellowship:

Goals:

- 7) All of the goals outlined for 1st year fellows, as noted above.
- 8) In addition to the above, the second year fellow should demonstrate advanced educational, communicative, and organizational skills, allowing him/her to arrive at appropriate treatment plans and goals mostly independently. (Professionalism)

Objectives:

- 7) All of the objectives for 1st year fellows, as noted above.
- 8) The second year fellow should demonstrate a deeper understanding of molecular principles of endocrine disease, and be able to effectively communicate these aspects both the participating Internal Medicine resident on the service, but also those requesting endocrine consultation.
 - a. Metric: Following education by the Fellow about the molecular mechanisms of an endocrine disease the Attending will query an Internal Medicine team that has consulted the endocrine service to verify educational efficacy.

Attendings are to review these goals and objectives with the Endocrinology Fellow assigned to this facility at the initiation of each monthly rotation. Fellows will receive and acknowledge receipt of Goals and objectives from New Innovations system prior to the start of their rotations.

Research Rotation

All fellows are required to engage in some research experience. Fellows will undertake the curriculum described in this document. In general, this experience takes place during their 1 or 2 year of training program, but other options are possible depending on individual circumstances, including during a 3rd year of fellowship.

Goals and Objectives

This curriculum describes activities and learning experiences for first and second year fellows in the Division of Endocrinology at Emory University. The overall objective of this curriculum is to provide a research experience in the labs or different clinics of our division. We have several general objectives: 1) it will contribute to the fellow's understanding of the molecular mechanisms involved in endocrine diseases 2) it will introduce the fellow to basic concepts involved in basic and clinical research, 3) it will introduce the fellow to the research programs of a broad variety of faculty and allow the fellows to meet and interact with other personnel in each lab.

Molecular mechanisms involved in endocrinology

1. Describe cell and molecular biology related to endocrine diseases **(MK)**
2. Describe genetic abnormalities related to endocrine diseases **(MK)**
3. Describe immune function related to endocrine diseases **(MK)**

Concepts in Clinical and Basic Research

1. Describe typical details associated with clinical trials **(MK)**

Related to

- a. sample size and power
 - b. number needed to treat
 - c. relative risk
2. Distinguish incidence and prevalence **(MK)**
 3. Describes strengths and weaknesses of research designs (e.g. case-control, cohort, controlled) **(MK)**
 4. Explain the following regarding diagnostic/predictive research **(SBP)**
 - a. likelihood ratios

- b. predictive values
- c. receiver operating characteristic curve
- d. sensitivity and specificity

To provide a solid and multifaceted mentored-research experience.

- To protect the time of the fellows for research by limiting clinical activities to continuity ambulatory care clinics and didactic sessions required by the training program. **(SBP)**
- To provide access to intellectual support and resources through the mentor, mentorship/collaborator committee, and other scientists within the division and the university **(ICS)**.
- To provide instruction in key areas of endocrine research such as cellular and molecular biology, endocrinology physiology, diabetes physiology, clinical epidemiology, endocrinology clinical trials, and biostatistics. **(MK)**
- To assist the fellow in addressing clinically-relevant questions in sophisticated *in vitro*, *ex-vivo*, or *in vivo* models of endocrine disease **(MK)**.
- To provide opportunities for fellow participation in regional and national/international professional organizations. **(ICS)**
- To provide instruction in the critical assessment of medical literature **(MK)**.

Conferences

During all phases of their training, Fellows participate in weekly conferences, both as presenters, and participant attendees. The weekly journal club reviews recent articles in clinical Endocrinology. In the weekly Endocrine Grand Rounds researchers from Emory or elsewhere present original research in endocrinology related fields. During the Endocrine Board Review Course Fellows prepare and present concise reviews of topics in clinical endocrinology to each other and an attending. The Grady Noon conference is a highly structured didactic lecture series completing a survey of clinical endocrinology every two years, and is presented by a broad range of both endocrine and non-endocrine faculty, and the Fellows. Finally, the Endocrine Case of the Week, is a weekly clinical case presentation conference during which Fellows strive to reconstruct a complete pathophysiologic, presentation, diagnostic, and treatment, picture of recent interesting cases, utilizing accessory services, such as surgery, pathology, and radiology

General Description

The fellows can engage in one of two types of research experience. One experience entails *clinical/translational research* with humans as part of a clinical or epidemiological trial. The second experience combines the *basic science and clinical/translational* experiences into one rotation.

The centerpiece of the experience will be the hands-on conduct of a research project under the close supervision of a mentor. Fellows will receive training in the design and interpretation of research studies, the responsible use of informed consent, and research methodology.

The research work will be complemented with seminars and lectures. The fellow will attend the conferences of the Division of Endocrinology. He/she will also receive the schedules for weekly research conferences conducted by the Department of Medicine. The mentor and the fellow will review those schedules together to determine which conferences are most valuable to the fellow. There are weekly conferences by outside experts that take place at the WMRB and the fellow will attend those as appropriate.

In addition to the performance of the studies described in the project and other developmental activities presented above, attention will be paid to assisting fellows in developing excellent abilities to communicate, both orally and in writing, with the clarity and skill essential to success in their careers. The mentor will carefully critique written abstracts, manuscripts and other documents, and provide direct input to fellows regarding scientific writing. It is expected that fellows generate sufficient data to submit their work for presentation at national meetings (once per year) and submit for publication 1-2 original manuscripts in peer-reviewed journals before the end of their training.

The fellow will also receive practical training in the responsible conduct of research as a result of his daily interactions with experienced investigators. In addition, he/she can attend and complete the courses in the Rollins School of Public Health on Bioethics and Responsible Conduct of Research. These courses are core components of the Masters of Science in Clinical Research program, but can be taken separately by those not pursuing the MSCR degree. Our Institutional Review Board (Human Investigations Committee) requires that all investigators who are involved in research with human subjects complete a course and examination in this area. Fellows involved in this type of research will complete this course and take the established test prior to receiving their certification.

The fellow engaged in research will be able to use office space in their assigned location at WMRB. They will have access to personal computers connected to the Emory network which accesses all available library and other reference sources.

Faculty

Roberto Pacifici, MD, Vin Tangpricha, MD, PhD, Adriana Ioachimescu, MD, Lawrence Phillips, MD, Guillermo Umpierrez, MD, Sonya Haw, MD, Francisco Pasquel, MD, Mary Rhee, MD, M. Neale Weitzmann, PhD, George Beck, PhD, Peter Thule, MD, Darin Olson, MD, PhD, Mark Nanes, MD, PhD, Mary Ann Sweeney, MD, Peter Wilson, MD, Priya Vellanki, MD

Assigning a Mentor

Trainees are encouraged to meet with potential mentors during their first year of training. They need to have identified potential mentors by the end of their first year of training. A mentor will be defined for each trainee entering a research rotation at least 2 months prior to the rotation. Ultimately, the mentor will be chosen based on the trainee's interests, the mentor's expertise and time commitments, and a full understanding by both the trainee and the mentor of the objectives and expectations of the rotation. A specific research program and the assignment of the mentor to a specific trainee will be approved by the Fellowship Program Director in conjunction with the Division Director. Sometimes, a mentoring committee is considered necessary; if so, this will be assembled with input from the mentor and the trainee.

The mentor will interact daily on an informal basis with the fellow. These interactions will include laboratory conversations, meetings to review data and experimental protocols, and rehearsals of presentations that the fellow will make at institutional, regional and national meetings. In addition, the mentor will meet individually with the fellow every week to discuss research progress and plans related to career development. Also during these meetings, the relevance of new findings to existing knowledge will be reviewed, and new hypotheses formulated. The mentor will also meet with fellows as part of the weekly meetings of their research teams where data are discussed and new experiments are designed.

Because of the nature of our program, it is expected that there will be significant interactions between trainees and members of other laboratories informally, as well as through formal research and seminar series. The faculty and trainees of the training program meet during to present new research findings, discuss new research proposals, and to ensure that all trainees are exposed to each facet of the overall program.

Evaluation of Mentors

The trainee will submit a written evaluation of the mentor to the Program Director every 6 months. A mentor evaluation form will be provided to each trainee. The performance of mentors will be evaluated for the following:

- The mentor(s) will ensure that the trainees will complete the requirements of the training program.
- The mentor(s) will ensure that the trainee has sufficient time to participate in didactic courses.
- The mentor(s) will meet regularly with trainees according to the guidelines described above.
- The mentor(s) will guide and facilitate the preparation of abstracts, manuscripts, and grant applications.
- The mentor(s) will facilitate the establishment of collaborative efforts and networking.
- The mentor(s) will assist in the trainee in developing a career plan.

Research Project

The research project pursued by the trainee will be decided based on conversations between the mentor and trainee, and on ongoing projects of the mentor. The following steps will need to be followed:

- Step 1** Discuss potential project(s) with potential mentors and other investigators.
- Step 2** Write an abbreviated proposal (no more than 1-2 pages) that includes a succinct description of the problem, the hypothesis and objectives, and the methodology.
- Step 3** The abbreviated proposal will be reviewed by the mentor for recommendations.
- Step 4** Once changes are made based on all recommendations, the abbreviated proposal is submitted to Program Director for input.
- Step 5** All new projects are presented by the mentor to the faculty during Division Faculty Meetings.

Facilities

The trainee will have the laboratory and/or office space, supplies, equipment, and technical assistance to complete the planned project. A computer with internet access will be provided to all trainees. Secretarial assistance is also available. Access to library and other resources will be provided.

Expectations

Each trainee is expected to:

- Engage in a research project with realistic goals that are accomplished within the appropriate time frame;
- Engage in didactic training;
- Prepare and present research results at one regional or national meeting every year;
- Prepare and submit written evaluations of their mentors every 4-6 months,
- Prepare and submit for publication their observations in a nationally recognized peer-reviewed journal.

DIDACTIC TRAINING

The trainees will attend a series of didactic lectures that will address the following areas: 1) cell and molecular biology research, 2) clinical investigation and human subjects protection, and 3) ‘survival skills’ in academia. These conferences are provided as part of our curriculum for all trainees in the program, and are provided during scheduled conferences. Trainees will also have access to other lectures/seminars provided at Emory and affiliated institutions.

Reading List

The mentor will meet in the beginning of the rotation with his/her team and will distribute a standardized reading list that includes important topics that should be covered during the rotation.

Evaluations

Fellows will be evaluated by their mentor, verbally and in writing, at the end of each rotation. The written evaluation includes the completion of a form that reviews the trainee’s intellectual abilities, manual skills, attitudes and interpersonal relationships. Faculty will also provide oral feedback and evaluation to the fellow midway through and at the completion of the rotation. Verbal feedback, especially positive feedback, is always encouraged where appropriate. The fellow at the end of the rotation evaluates faculty by completing the appropriate evaluation form.

Teaching Methods:

1. Informal didactics
2. Case based analysis

Endocrinology Thursday Noon Grady Conference

Goals and Objectives

Emory University Fellowship Program

Endocrinology, Metabolism, & Lipids

Version: 22Jan08

First Approved by Curriculum Committee: 3/31/08

Last Reviewed by Curriculum Committee: May 28, 2013

Responsible Faculty: Mary Rhee, MD, Grady Memorial Hospital

Format:

The Grady Noon Conference (GNC) is a divisional activity that meets weekly on Thursday in the Grady Faculty Office Building, 4th floor conference room. GNC is held during the entire year, except for Thursdays which fall on national or religious holidays, or during the American Diabetes Association (ADA) or Endocrine Society meetings.

A faculty member is responsible for organizing the GNC and evaluating conference effectiveness. Presentations are made predominantly by faculty, but occasionally by fellows, both within and external to the Division of Endocrinology. The audience includes Grady endocrine faculty, fellows, and variable attendance by medical and PA students, nurses, and clinical research staff and investigators. Topics for presentation are derived from required topics to be covered during fellowship training in Endocrinology & Metabolism as set out in the ACGME guidelines (version 7/5/05). The bulk of topics, particularly at the beginning of each academic year, provide a strong clinical introduction for fellows and assist the transition from general internists to subspecialists. Faculty seminar presentation incorporates active questioning and interaction with the endocrinology fellows, and concludes with specific questions for the fellows.

Goals and Objectives:

1st year of fellowship:

Goals:

- 1) To improve in-depth knowledge of endocrinological issues in a strict didactic format.
(Medical Knowledge)
- 2) To advance verbal and audio-visual presentation skills. (Communication)
- 3) To enhance use of physical library and electronic data base information retrieval.
(Systems Based Practice)
- 4) To enhance fellow's ability to interact with providers and researchers involved with delivering and investigating endocrine care. (Systems Based Practice)
- 5) To enhance fellow's ability to engage in scientific discourse among adherents of various viewpoints.
(Professionalism)



Objectives:

- 1) To inform via a basic didactic introduction to multiple topics in clinical endocrinology.
- 2) To interact with a diverse group of professionals involved in care of endocrine patients.
- 3) To present didactic lectures on specialized endocrine topics.
 - a. Metric: Following each fellow presentation, the responsible attending will complete a written evaluation and provide this to the presenting fellow for comment.
- 4) To demonstrate understanding of presented material
 - a. Metric: Presenters are requested to provide two questions that fellows who attended the presentations should be able to answer. In addition, the present moderating faculty member contributes two questions that also probe the transfer of knowledge to the fellows. Fellows provide summary answers on the evaluation sheet provided.

2nd year of fellowship:

Goals:

- 1) All of the goals outlined for 1st year fellows, as noted above.
- 2) To further deepen the fellows' molecular understanding of endocrine disease pathogenesis and treatment.

Objectives:

- 1) All of the objectives for 1st year fellows, as noted above.
- 2) To deepen the fellows' comprehension of molecular disease processes.
- 3) Advanced fellows provide two questions that peers who attended the presentations should be able to answer. The present moderating faculty member contributes two questions that also probe the transfer of knowledge to the fellows. Fellows provide summary answers on the evaluation sheet provided.

Evaluations:

The fellows each complete an evaluation sheet querying:

- 1) the utility of the information presented in the context of an academic endocrinology training program, using a 9-point Likert scale,
- 2) the effectiveness of the presentation, using a 9 point Likert scale,
- 3) additional comments, provided in an open-answer format.

The faculty member responsible for the GNC tabulates the numerical results, summarizes written fellow comments, and provides a written report to the fellowship director.

Goals and Objectives
Outpatient VA Lipid Clinic
Veterans Affairs Medical Center:

Emory University Fellowship Program
Endocrinology, Metabolism, & Lipids
Version: July 2, 2008

First Approved by Curriculum Committee: Aug 27, 2008

Last Reviewed by Curriculum Committee: May 28, 2013

Responsible Faculty: Mary Ellen Sweeny, MD, Atlanta VAMC

Overview: The outpatient Lipid clinic at the Atlanta VA Medical Center provides consultative support for issues dealing with hyperlipidemia and/or lipid metabolism to Internal Medicine, Psychiatry and Mental Health, the Emergency Department, and General Medicine services, and all general and subspecialty surgical services within the Atlanta VA Medical Center (VAMC). In addition, it receives consultation requests from outlying clinic within VISN 7 of the VA healthcare system. The clinic meets for a single half day each week, and Fellows in Endocrinology are assigned to the clinic for periods of one month.

Fellow responsibilities: Consultation requests are to be received electronically by the Attending. In the clinic the attending will assign selected patients to the Fellow for clinical review and assessment of all available information, including, but not limited to, the history and physical examination, and the available medical record. The Fellow is then expected to present a summary of this evaluation to the attending, with whom a formal assessment and treatment plan is devised. Both these actions should be completed expeditiously. During periods that a resident physician in Internal Medicine is also assigned to participate in the clinic, the Fellow will serve as an additional supervisor and instructor of the resident. The Fellow is responsible for directing evaluation of the literature and endocrine reference works. This responsibility extends to assuring the accuracy and timeliness of clinic work product by the resident.

Recognizing that Fellows just beginning their training will, in general, be less facile, and become more competent with experience, responsibilities and expectations will increase continuously for the Fellows. These increasing responsibilities and expectations are summarized in the following stepped Goals & Objectives.

Goals & Objectives:

1st year of fellowship:

Goals:

17) To gain practical clinical experience in the diagnosis and detection of endocrinologic abnormalities manifesting in serum lipid abnormalities, and their appropriate and cost effective treatment. This includes eliciting the basic critical elements of a medical history focused on endocrine diseases, performing an endocrine and lipidology focused physical examination, ordering and correctly interpreting appropriate laboratory and imaging based evaluative tests, and initiating an appropriate treatment plan. (Medical Knowledge)

- 18) To advance verbal and written communication skills with other health care professionals. (Communication)
- 19) To enhance use of physical library and electronic database information retrieval. (Systems Based Practice)
- 20) To enhance fellow's ability to engage in scientific discourse among health care providers and educate with respect to clinical endocrinology. (Professionalism)

Objectives:

- 18) Accurately and effectively fulfill all requests for consultative support involving questions of endocrinology at the Atlanta VAMC during assigned months.
- a. Metric: Fellow will maintain a clinical portfolio of all patients seen by him/her in the clinic that include the patient, the endocrine diagnosis, and the outcome the consultation, and final resolution. This list will be maintained by the fellow for yearly self review. The Attending will review this portfolio at the conclusion of the month, and evaluate for timely completion of consults, exceptional cases that might be used for Case of the Week, diversity of lipid cases, and identification of organization, administrative or communication problems. (Practice Based Learning)
- 19) Demonstrate facility with patient interviewing, medical history taking, and in eliciting diagnostically relevant findings on physical examination, all with a focus on endocrine diseases.
- a. Metric: Attending will observe and score fellow while interviewing, obtaining a medical history, and performing a physical examination, all with a focus on endocrine diseases. (Medical Knowledge)
- 20) Demonstrate effective, prompt, and professional communication of all findings and evaluations to the attending.
- a. Metric: Fellow will be evaluated on effectiveness in communication. (Communication)
- 21) Document validity of clinical decisions by demonstrating support in the medical literature.
- a. Metric: Fellow will document literature support for clinical decisions pertaining to endocrinology by producing hard copies of scientific literature in support of key treatment or evaluative decisions made during the month. In general this should be on the order of at least one paper from the literature per clinic day. These papers should be included in the fellows' clinical portfolio, and associated with the appropriate clinical case. (Medical Knowledge, Practice Based Learning)

2nd year of fellowship:

Goals:

9) All of the goals outlined for 1st year fellows, as noted above.

10) In addition to the above, the second year fellow should demonstrate advanced educational, communicative, and organizational skills, allowing him/her to arrive at appropriate treatment plans and goals mostly independently. (Professionalism)

Objectives:

9) All of the objectives for 1st year fellows, as noted above.

10) The second year fellow should demonstrate a deeper understanding of molecular principles of endocrine disease, and be able to effectively communicate these aspects to both participating Internal Medicine residents, and also the providers requesting consultation with the lipid clinic.

a. Metric: Following evaluation, treatment, and discussion between the Fellow and the referring provider, the Attending will query the referring provider to verify educational efficacy. Attendings are to review these goals and objectives with the Endocrinology Fellow assigned to the lipid clinic at the initiation of each monthly rotation.

Attendings are to review these goals and objectives with the Endocrinology Fellow assigned to this facility at the initiation of each monthly rotation. Fellows will receive and acknowledge receipt of Goals and objectives from New Innovations system prior to the start of their rotations.

Endocrinology Case of the Week , Thyroid Tumor Board & Board Review

Goals and Objectives

Emory University Fellowship Program

Endocrinology, Metabolism, & Lipids

Version: 22Jan08

First Approved by Curriculum Committee: January, 2008

Last Reviewed by Curriculum Committee: May 28, 2013

Responsible Faculty: Sol Jacobs, MD, Emory Clinic

Overview:

Case of the Week (COW) is a divisional activity that meets weekly at 7:30AM on Friday in the Emory Clinic. COW is held during the entire year, except for Fridays on which falls national or religious holidays, or during the ADA or Endocrine Society meetings. The responsible faculty member is in charge of organizing COW and guiding the fellows. The faculty member attending on the inpatient Emory Hospital service during each week is responsible for moderating the presentations. The attending physician with whom the fellow originally encountered the presented case is responsible for ensuring that the fellow understands the diagnostic and therapeutic decisions that were made. The fellow is responsible for reviewing the case with that attending prior to presentation.

Presentations are expected to include laboratory studies, surgical and pathology results, imaging studies, as well as pertinent clinical and historical findings. When possible, input, in person if possible, from surgeons, radiologists, and pathologists is highly encouraged. The four fellows will rotate presentations, such that one fellow presents at each COW. Consequently, each fellow presents approximately 12 times per year. Fellows are responsible for a thoughtful, well prepared presentation, and for leading the discussion. Approximately once per month, the COW meeting will be replaced by the Thyroid Tumor Board. The Thyroid Tumor Board meeting is similar to COW, except that the topic is thyroid tumor, and the faculty includes ENT and general surgeons.

Goals and Objectives:

1st year of fellowship:

Goals:

- 1) To advance verbal and audio-visual presentation skills. (Communication)
- 2) To improve in-depth knowledge of endocrinologic issues. (Medical Knowledge)
- 3) To enhance use of physical library and electronic data base information retrieval. (Systems Based Practice)
- 4) To enhance fellow's ability to engage in scientific discourse among adherents of various view points. (Professionalism)

Objectives:

- 1) Presentation of an experienced clinical case to Endocrine faculty and fellows. Presentation should outline the historical basis of similar cases, and clearly illustrate what is similar and what is different or unusual about the current case.
- 2) Presentation should utilize an electronic slide presentation. Additional audiovisual aids are encouraged where appropriate but not required.
- 3) Individual electronic slides should be designed to each convey a small number of discrete points, which in sum effectively create an informational context for evaluating the case presented in #1.
- 4) Lecture content should be extracted from extant literature, with regard for quality of the reported investigations.
- 5) The presentation should include surgical, pathological, and imaging data, and where possible contributions by surgical, pathological, and imaging specialists.
- 6) Duration of talk should permit 10-15 minutes of discussion among the presenter and the audience.
 - a. Metric: The above objectives will be evaluated on a quarterly basis by the responsible attending physician.

2nd year of fellowship:

Goals:

- 1) All the goals outlined for 1st year fellows, as noted above.
- 2) To enhance fellow's ability to engage in scientific discourse among adherents of various view points. (Professionalism)

Objectives:

- 1) All of the objectives for 1st year fellows, as noted above.
- 2) The fellow should describe the limitations of the available data and present a short outline for possible future investigations.
- 3) The presenter should function as an effective moderator for discussion among the audience.
 - a. Metric: The above objectives will be evaluated on a quarterly basis by the responsible attending physician.

Format:

Case A: Literature Based (30 minutes, <30 slides)

BRIEF Case Presentation



Limited (if any) Differential Diagnosis
State 2-3 Questions
Present Literature Analysis
Answer the 2-3 Questions
References

Case B: "Zebra" (20 minutes)

Case Presentation
Differential Diagnosis (Encourage faculty involvement)
Diagnosis, Epidemiology, Management
References

Case C: Faculty (10 minutes)

Discussion of an interesting case, or results of faculty research that has bearing on patient care.