ENDOCRINOLOGY
RESIDENT CURRICULUM

I. Introduction

1. The endocrinology rotation is designed to permit maximum exposure to endocrine problems. The primary emphasis is on diabetes, thyroid, and pituitary disease. Additional emphasis is given to parathyroid, adrenal, lipid, metabolic bone disease and gonadal disease as time permits. This rotation is designed so that the resident/student gains a basic understanding of endocrine problems and knowledge of diagnostic tests necessary to thoroughly evaluate a given problem. Emphasis will be given to the present controversies concerning therapy, etiology, and pathophysiology of endocrine diseases.

2. The endocrine rotation will be offered as an elective to Internal Medicine residents, non-Internal Medicine residents, and medical students in military-sponsored programs, in that order of priority. It will normally be a four week rotation, but other time frames can be arranged.

3. No more than one student or resident will be assigned at a time without special approval by one of the staff endocrinologists to ensure a satisfactory learning experience.

4. Normally, the resident/student will have no responsibilities to the endocrine service on weekends and holidays.

II. Curriculum:

1. Outpatient Clinic.

a. Endocrinology is primarily an outpatient specialty. Therefore, participation in outpatient clinics will provide the trainee the largest and broadest exposure to endocrinologic problems. Whenever possible, residents with required continuity clinics in their primary specialty should arrange their clinic(s) to allow maximum participation in endocrine clinic. The resident/student is required to attend a minimum of five half day clinics per week. The resident should contact the department at least 30 days before starting the rotation to finalize clinic schedules.

b. The resident/student will normally see the scheduled new patients and follow-up patients with the best teaching value. Residents and senior medical students will see these patients independently before staffing. Junior students may be asked initially to see the patients with staff until the students' proficiency at basic history taking and physical exam skills can be evaluated. All patients will be staffed by the endocrinologist overseeing that clinic.

2. Inpatient Consultations

a. The resident/student will see all inpatient endocrinology consults and follow the patient throughout their hospital stay. In addition to accomplishing the initial consultation, the trainee will see inpatients daily and write progress notes for the inpatient record at appropriate intervals. The attending must sign all progress notes written by medical students.

b. Each written consultation should function not only to direct the work-up or therapy of the patient, but to teach the consulting physician. Since DGMC is a teaching hospital, trainees on other services should benefit from your efforts. Therefore, the resident/student is expected to present a brief analysis and discussion of the case, diagnostic tests and treatment recommended rather than simply listing these recommendations. In addition, the resident/student is required to furnish an article from the current literature regarding the topic of the consultation for inclusion with the completed consult.

3. Required Conferences

a. Internal medicine morning report (0800-0900 hr.) and noon conference (1200-1300 hrs) are required conferences. Every effort will be made to assure that clinic does not interfere with trainees ability to attend them.

b. Nuclear medicine conference is held at 1330 hrs on Fridays in the nuclear medicine reading room. The resident/student should be prepared to briefly present patient's history they have seen in clinic who are now being considered for a nuclear medicine study. The trainee should also be prepared to participate in the interpretation of these studies.

4. **Other Requirements**

a. Participate in fine needle thyroid aspiration biopsies and scheduled endocrine suppression and stimulation tests (when available).

b. Attempt to attend endocrine surgeries on patients followed by the inpatient or outpatient endocrine services.

c. Prepare a presentation on an endocrine subject of choice but preferably based on a patient seen in clinic or on the wards. This will be an informal presentation, but should be adequately researched to serve as the basis for a formal lecture in the future. It should be written at the level of the junior Internal Medicine Resident, approximately 20-30 minutes in length. It is hoped this will expand the resident/student's knowledge base, provide the basis for a future lecture to other physicians, and give the endocrine staff the opportunity to critique the resident/student's teaching style and format.

III. **Guidelines for the Endocrinology Resident/Student**:

This list of guidelines is meant to inform you of the academic and administrative requirements during the endocrinology rotation. Most of these points will be used in evaluating your performance, as well. Therefore, if you use this list as a guideline for your daily work, you should have a successful learning experience as well as a good evaluation report.

1. Demonstrate good working knowledge of basic endocrine physiology and pathophysiology, to include the following topics: thyroid disease, disorders of calcium balance and metabolic bone disease, glucose metabolism, obesity, hyperlipidemia, adrenal dysfunction, pituitary disease, and testicular and ovarian hormonal abnormalities.

2. Be able to accurately and completely elicit an endocrinologic history and be able to describe and perform pertinent endocrine examinations

3. Understand and be able to interpret diagnostic laboratory tests, including but not limited to the following: thyroid function tests, thyroid antibodies, thyroid scans, radioactive iodine uptake, TRH stimulation test, serum calcium, serum phosphorus, serum alkaline phosphatase, X-rays (in case of metabolic bone disease), bone densitometry studies, serum PTH levels, vitamin D levels, serum calcitonin levels, serum lipid studies, serum cortisol (baseline and stimulated), serum aldosterone, plasma renin activity, serum testosterone, serum FSH and LH, serum ACTH, serum prolactin, serum growth hormone, serum glucose (including glucose tolerance testing), glycosylated hemoglobins, insulin tolerance testing, metyrapone testing, serum insulin, serum C-peptide studies and CT and MRI scans of the endocrine organs.

4. Be able to prescribe, as diagnostic measures or for therapy, the following medications: levothyroxine, triiodothyroinine, PTU, methimazole, organic iodine, radioactive iodine, calcium preparations, bisphosphonates, calcitonin, bromocriptine, octreotide, vitamin D, estrogens, testosterone, glucocorticoids, mineralocorticoids, insulin, sulfonylurea drugs, metformin, metyrapone, vasopressin, and cortrosyn.

5. Be able to palpate a thyroid gland and describe the findings; and be able to suggest possible etiologies of the abnormal findings.

6. Understand and prescribe multifaceted treatment plans for patients with diabetes mellitus. Integrate long-term diabetes care plans with general medical health care screening.

7. Make sure that the medical records and consultations are concise and completed within 24 hours after staffing. Assure that you obtain staff approval on all medical records and consultations.

IV. **Staff Responsibility**:

1. Provide a reading list of up to date endocrine articles covering the major areas of endocrinology. The staff's personal library is available at all times.

2. Hear and critique the resident/student's prepared presentation.

3. Be available at all times to answer questions and discuss endocrine topics of interest to the resident /student.

4. Evaluate the resident/student informally mid-rotation and formally at the end of the rotation, utilizing the form provided by the resident's department or the student's medical school. The staff and trainee must jointly review the final evaluation and sign the document.

V. We hope that your rotation on the endocrinology service will be an enjoyable and meaningful experience. Please be sure you complete and turn in the critique sheet at the end of the rotation. We need your input so that we can continuously improve the experience on the endocrinology service.

VI. Please address any questions or inquiries to:

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May 03