Department of Medicine

UPSTATE MEDICAL UNIVERSITY
COLLEGE OF MEDICINE

Consult Endocrinology Team

The Endocrine consult service includes the inpatient management of patients with various Endocrine disorders including diabetes mellitus and its complications. The service provides consultative service to University Hospital and the VA Hospital. The Endocrinology clinical faculty include the following individuals:

Ruth S. Weinstock, M.D., Ph.D.
Distinguished Service Professor of Medicine and Research Professor of Physiology, Chief, Division of Endocrinology, Diabetes and Metabolism at SUNY Upstate Medical University and Medical Director, Clinical Research Unit and Joslin Diabetes Center at SUNY Upstate Medical University

Runa Acharya, M.D.
Assistant Professor of Medicine

Tuncay Delibasi, M.D.
Assistant Professor of Medicine

Barbara L Feuerstein, M.D.
Associate Professor of Medicine.

Rachel L. Hopkins, M.D.
Assistant Professor of Medicine

Roberto E. Izquierdo, M.D.
Professor of Medicine and Pediatrics, Director, Thyroid Center of Excellence and Division of Pediatric Endocrinology at SUNY Upstate Medical University

Jason Sloane, M.D.
Assistant Professor of Medicine

I. Educational Purpose

The general internist should be competent to evaluate and treat common endocrine disorders including diabetes, thyroid disorders, adrenal and pituitary disease and metabolic bone disease. Intrinsic to good training is the appropriate understanding of when referral to an endocrinologist is indicated. He/she also needs to develop expertise in initial consultations and the management of glucose control and diabetes-related complications of hospitalized patients.

II. Learning Venue

A. Rotation Description:

The Endocrinology consult service provides care to patients at the University Hospital and the VA Hospital. Residents rotating on the service will see medical and surgical patients ages 18 and older with a wide variety of endocrine disorders. The inpatient service averages 15-20 patients (90% University, 10% VA) and consists of the attending, fellow/s, 1-2 house staff officers, and 0-2 medical students.

Expectations of PGY-1: The intern will complete detailed history and physical examinations of referred patients and complete progress notes on a daily basis. He or she will follow an average of three patients on the inpatient service. Patient evaluations at the Joslin Center will be under the direct supervision of a Joslin attending. The intern will be expected to recognize and treat the basic clinical and laboratory abnormalities of common endocrinological disorders seen in ambulatory and hospitalized patients including issues related to glycemic control, diabetic ketoacidosis, thyroid disorders, adrenal insufficiency and excess, osteoporosis and the emergencies related to all other hormonal abnormalities. Interns will also be expected to teach the medical students on the service as well as further his/her own learning through the use of reading materials outlined below. Interns are expected to aggressively improve their own knowledge by reading and seeking evidence based solutions for clinical problems encountered. Interns may be asked to present formal topics.

Expectations of the Senior Resident: Same as intern expectations, plus the senior resident will follow up to 6 patients on the inpatient service. The senior resident should master the basic clinical and laboratory interpretation of major endocrine diseases as well as fulfill teaching responsibilities to the intern and medical students. The senior resident will continue to expand his or her knowledge of endocrine disease with the aid of the reading materials outlined below. It is expected that residents will model practice based learning and exhibit exemplary communications skills as a consultant.

B. Teaching Methods:

1. Daily Attending Rounds

   The inpatient consult team (students, house staff, fellow, and attending) will discuss patient issues and formulate daily plans. The house staff will be expected to have seen each of their assigned patients, collected all relevant data, and present in a concise, logical format to the attending.

   Teaching Rounds

Here the attending will lead the team in various exercises to expand their knowledge of Endocrinology. Various formats, including bedside teaching, didactic sessions, focused presentations, will often be incorporated during work rounds.

2. Recommended Reading:

- www.endotext.com (excellent free online reference).
- Williams Textbook of Endocrinology: ed. Shlomo Melmed, Kenneth S. Polonsky, P. Reed Larsen, Henry M. Kronenberg.
- Primer on the Metabolic Bone Diseases and Disorders of Mineral Metabolism: ed. Clifford J. Rosen, Roger Bouillon, Juliet E. Compston, Vicki Rosen
- Endocrinology (textbook) ed. DeGroot, Jameson
- Basic Medical Endocrinology: H Maurice Goodman
- Joslin Diabetes Mellitus (textbook): C. Ronald Kahn, Robert J. Smith, Gordon C. Weir, George L. King, Alan C. Moses
- The Washington Manual Endocrinology Subspecialty Consult: Katherine E .Henderson, Katherine Handerson
- Manual of Endocrinology and Metabolism: Norman Lavin
- Up-to-date online
- PIER at www.acponline.org for relevant peer reviewed discussions

3. Unique Learning Opportunities:

Conferences: - residents are encouraged to attend and participate in weekly endocrinology case conference.

-Weekly (Thursdays) Case Conferences at noon at the Joslin Diabetes Center, which includes discussions on general endocrine disorders, diabetes and metabolism, thyroid disorders and disorders related to calcium/bone, adrenal and pituitary glands.
-Advances in Endocrinology, Diabetes & Metabolism every Friday.
-Weekly fellow board review/core curriculum teaching sessions.

C. Mix of Diseases and Patient Characteristics

1. Common Clinical Presentations and Diseases:
   - Diabetes mellitus
   - Obesity
   - Thyroid disorders
   - Parathyroid disorders
   - Pituitary disorders
   - Hypothalamic disorders
   - Gonadal disorders
   - Genetic diseases
   - Metabolic bone disease
   - Hyponatremia
   - Lipoprotein disorders
   - Adrenal disorders
   - Transgender hormone care

2. Endocrine Emergencies:
   - Diabetic ketoacidosis
   - Hyponatremia
   - Hypernatremia
   - Hyperosmolar coma
   - Adrenal crisis
   - Thyroid storm
   - Hypoglycemia.

III. Educational Content

1. Endocrinology

Principles of Endocrinology

Disorders of the Anterior Pituitary and Hypothalamus
Disorders of the Neurohypophysis
Disorders of the Thyroid Gland
Disorders of the Adrenal Cortex
Pheochromocytoma
Diabetes Mellitus
Hypoglycemia
Disorders of the Testes and Male Reproductive System
Disorders of the Ovary and Female Reproductive Tract
The Menopause Transition and Postmenopausal Hormone Therapy
Disorders of Sexual Differentiation
Endocrine Tumors of the Gastrointestinal Tract and Pancreas Disorders Affecting Multiple Endocrine Systems
Obesity
Gender Affirming Hormone Therapy

2. Disorders of Bone and Mineral Metabolism

Bone and Mineral Metabolism in Health and Disease
Diseases of the Parathyroid Gland and Other Hyper- and Hypocalcemic Disorders
Osteoporosis
Paget Disease and Other Dysplasias of Bone

3. Disorders of Intermediary Metabolism

Disorders of Lipoprotein Metabolism
Other Inherited Disorders of Carbohydrate Metabolism

IV. Method of Evaluation

Evaluations are based on internal medicine and subspecialty milestones. Interim evaluations will be provided to each member of the team. All team members are expected to complete formal evaluations at the end of each rotation using Medhub.

V. Rotation Specific Competency Objectives

A. **Patient care –** This rotation offers residents the opportunity to participate in care of patients with endocrine disorders including diabetes, thyroid disorders, adrenal disease, pituitary disease and metabolic bone disease, who are being seen by the inpatient endocrine consult service.

B. **Medical knowledge –** This rotation offers training in skills necessary for the diagnosis and management of endocrine disorders including diabetes, thyroid diseases, osteoporosis and other metabolic bone diseases. Residents will also learn about the use of insulin pump therapy, continuous glucose monitoring devices, thyroid sonography, FNA of thyroid nodules, nutrition services, radiographic imaging of pituitary and adrenal glands, and podiatry. Residents also have the opportunity to attend various endocrine conferences to enhance their learning.

C. **Professionalism -** Residents should demonstrate the ability to interact professionally with patients, colleagues, and all members of the health care team demonstrating the ability to provide care as a member of an interdisciplinary team. They should demonstrate acceptance of professional responsibility as the physician for patients under his/her care at the clinic. Residents should demonstrate an understanding of the ethical concepts of confidentiality, consent, and autonomy.

D. **Interpersonal and Communication skills –** Residents will conduct themselves professionally and learn how to effectively elicit a comprehensive history. Evaluations will be based on clarity of written and verbal communications of consultative advice to patient and their families, referring physicians and other health team members.

E. **Practice Based Learning –** Resident should demonstrate the ability to identify and acknowledge gaps in personal knowledge and skills. Resident should demonstrate the ability to develop and implement strategies for filling gaps in knowledge and skills. Resident should demonstrate a commitment to professional scholarship, including systematic and critical review of literature, with emphasis on integration of basic science with clinical medicine and the principles of evidence-based medicine.

F. **Systems Based Practice –** Residents have the opportunity to learn about coordinating long term care for patients with diabetes and other endocrine disorders and coordination with primary care, other subspecialists as needed, and with the diabetes education team.

Reviewed & Revised by: Dr. Barbara Feuerstein and Dr. Rachel Hopkins
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