

Progression of Training and Skills Endocrinology

Preamble

The diagnosis and treatment of endocrine diseases are guided by laboratory tests to a greater extent than for most specialties. Some diseases are investigated through excitation/stimulation or inhibition/suppression testing. Consequently, a family physician confronted with a potential endocrine problem needs knowledge of clinical chemistry and biochemistry to understand the uses and limitations of the investigations. A second important aspect of endocrinology is distinguishing human variation from disease. Atypical patterns of physical development and abnormal test results must be assessed as indicative of disease, or not, and diagnostic imaging of endocrine organs may reveal incidental findings which may or may not represent disease.

Most endocrine disorders are chronic diseases that need life-long care and are close to the heart of family medicine. Some of the most common endocrine diseases, including diabetes mellitus, hypothyroidism and the metabolic syndrome, are seen weekly, if not more frequently, in the family physician's office. Care of these chronic diseases requires understanding the patient at the personal and social level as well as the molecular, and the physician–patient relationship can be an important therapeutic process.

Goals

- Learn efficient outpatient management of patients with endocrine disorders
- Learn inpatient and outpatient management of patients with diabetes mellitus including:
 - ketoacidosis and non-ketotic hyperosmolar coma
 - simple glycemic control
 - management and prevention of diabetic complications
 - adjusting insulin and/or oral hypoglycemic therapy for procedures or surgery
- Efficiently evaluate the endocrine systems of acutely and chronically ill patients, including the role of stimulation and suppression testing and imaging studies
- Understand indications and timing of referral to endocrinology subspecialist

Objectives

- Demonstrates ability to obtain an accurate history with regard to:
 - symptoms of DM and complications
 - symptoms of hypo and hyperthyroidism, hypercalcemia and osteoporosis
 - risk factors for diabetes and osteoporosis
- Demonstrates the ability to perform a routine:
 - screening thyroid exam
 - screening diabetic foot exam using monofilament
 - neurologic exam for evidence of stocking glove neuropathy
- Recognizes, initiates management for, and outlines goals for:
 - uncontrolled DM (hyperosmolar states, DKA, asymptomatic hyperglycemia)
 - new onset DM in an outpatient with monotherapy
 - dyslipidemia
 - hypothyroidism in the young and in the elderly

- Interprets results of:
 - Fasting and post prandial glucose
 - cholesterol panel
 - TSH determinations used for screening
 - microalbumin
- Understands the indications for:
 - thyroid ultrasound
 - thyroid uptake scan

These goals and objectives are achieved through a combination of structured inpatient/ outpatient experience, together with didactic instruction. In addition to an elective endocrinology rotation, the overlap with general medicine should be apparent.

[Revised and approved at the Faculty Meeting April 3, 2012]

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Suggested reading:

Polycystic ovary syndrome - Ann Int Med in the clinic - February 1, 2011

Hyperthyroidism - Ann Int Med in the clinic - July 3, 2012

Primary hypothyroidism - The Endocrinologist 2006;16:203-207

Corticosteroid use preoperatively - Dr. Ryan

Clinical use of anion gap - Medicine 1977;56:38-54

Important formulas in DKA - Dr. Ryan