Lipid Clinic Goals and Objectives

Center for Advanced Medicine, 5th floor
Tuesdays, 8:00 a.m. - 12:00 p.m.
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Educational goal and description of the rotation: Fellows will attend the Lipid Clinic one half-day per week for 2 months. The educational goal of the rotation is to foster a more in-depth understanding of lipid disorders, how they present and the intricacies of treatment. Fellows in endocrinology, diabetes and metabolism will see patients with dyslipemias – chiefly hyperlipemias – typically during their first year. Patients referred for consultation and those receiving ongoing care are included. Fellows seeing patients in the Lipid clinic are supervised by Dr. Goldberg.

Educational Purpose: The specific goals (educational purposes) of this rotation are to permit the fellow to understand the pathophysiology of lipid disorders and to develop clinical expertise in the diagnosis and management of both common and uncommon lipid disorders. The fellow will develop an understanding of the cost-effective use and interpretation of laboratory tests for lipid disorders, including measurements of standard lipid profiles and more sophisticated measurements of lipoproteins, Lp(a) and apolipoproteins and performance of apoE genotyping. Fellows will understand the relevance of treating lipid disorders to prevent new or recurrence of cardiovascular disease. Fellows will learn to provide diet and exercise advice to patients with lipid disorders, learn the guidelines of the National Cholesterol Education Program, learn to diagnose and treat common lipid disorders including polygenic hypercholesterolemia, familial combined hyperlipidemia and mixed dyslipidemia and to learn to diagnose and treat uncommon lipid disorders including familial hypercholesterolemia, dysbetalipoproteinemia and the chylomicronemia syndrome.

Patient care: Fellows will develop and demonstrate the ability to gather accurate information about patients, with emphasis on cardiovascular risk and past events, family history, relevant concomitant medical conditions and prior treatments. Fellows will be able to perform a thorough physical examination to identify evidence of vascular disease and to identify specific signs of hyperlipidemia such as arcus senilis, tendon xanthomas, eruptive xanthomas, lipemia retinalis and others. Fellows will be able to incorporate this information into a diagnostic and treatment strategy, taking into consideration of past effective, non-effective and poorly tolerated treatments for hyperlipidemia. Fellows will gain a thorough understanding of lipid lowering therapies, including the indications, contraindications, metabolism, interactions, and appropriate combinations in order to achieve the best possible lipid lowering for patients with lipid disorders. Fellows will gain an understanding of inherited lipid disorders and the potential importance of testing family members, either with standard or genetic tests.
**Medical knowledge:** Fellows will demonstrate a fund of knowledge that includes: basic lipoprotein metabolism, the pathogenesis of different types of lipid disorders, the impact of dyslipidemia in the context of the patient’s other risk factors and family history for vascular events and mortality. Fellows will learn and demonstrate an excellent knowledge base about lipid lowering therapies, including both dietary therapy and pharmaceutical interventions.

**Practice-based learning and improvement:** Fellows will understand the limitations of their prior knowledge and seek to improve their level of expertise in the diagnosis and treatment of complex lipid disorders. Fellows should be self-motivated to gain knowledge during the rotation by incorporating self study with patient care and discussions with the faculty attending physician. Fellows should learn to ask pertinent questions to accomplish diagnostic and therapeutic goals for each patient effectively and efficiently. Fellows should learn about the disease of atherosclerosis, its clinical manifestations and risk of recurrence in individual patients.

**Interpersonal and communication skills:** Fellows should become proficient in the care of both adults and children on this rotation, being sensitive to family history, serious past illness and concern about future events. Fellows should be able to approach problems with lifestyle as well as medication acceptance and adherence with equal facility. Fellows should demonstrate the ability to convey clinical information accurately and concisely in oral presentations and chart notes.

**Professionalism:** Fellows should demonstrate respect, compassion and integrity along with a commitment to optimal patient care and professional learning and development. Fellows should learn behaviors that respect the practice of other clinicians, since this is a clinic with a high degree of collaborative care.

**Systems-based practice:** Fellows should become familiar with the current charting methods and the ability of these methods to interact with other hospital systems. Fellows should understand how to order specialized lipid tests, the type of samples required, the length of time to get results, the cost, etc. Fellows should learn to utilize the NIH risk score to develop appropriate treatment goals for patients.

**Teaching methods:** Teaching is based on clinical cases with discussions of pathophysiology and treatment tailored to individual patient’s needs. Case discussions and interactions with the attending physician, laboratory physicians and consulting physicians will provide excellent, memorable teaching experiences. Additionally, several conferences are scheduled each year dealing with lipid disorders and atherosclerosis (see conference schedules).

**Mix of diseases:** The vast majority of patients will have hyperlipidemia, though some will have dyslipidemia that includes low HDL or other risk factors for vascular disease. Some patients may be unaffected family members of patients with familial dyslipidemias. Many patients will have concomitant risk conditions such as diabetes, hypertension, smoking histories, etc. Many patients will have had one or more vascular events. Patients may be seen because of intolerance to standard therapies and in need of a more tailored approach.
**Reading lists and other educational materials:** Since these are somewhat common disorders for fellows trained in internal medicine, the fellows will be encouraged to read background information from textbooks and basic science reviews. They will also be expected to read or have read the most recent ATP guidelines and consensus statements for the management of hyperlipidemia and the hyperlipidemia chapter in: