Interpretation of Laboratory Data Course, University of Minnesota Medical School

The major purpose of this course is to globally cover in detail all areas of laboratory medicine, including hematology, coagulation, diagnostic immunology, clinical chemistry, metabolic/endocrine disease, enzymology, renal disease, urinalysis, body fluids, use of blood products, mycology, virology, and bacteriology. Each topic is presented in physiologic and pathophysiologic terms; each discussion is designed to culminate in a clearly outlined approach to clinical laboratory diagnosis and management. A small cadre of experienced pathologists conduct the didactic and Socratic sessions.

Institutional Site Director
Anthony Killeen, M.D., Ph.D.

Training Site:
University of Minnesota Medical School

Duration of Rotation:
Six weeks

Post Graduate Level of Residents Involved
PGY level 2-5

Overview of Daily Duties and Responsibilities

The course is a composition of didactic lectures devoted to pathophysiology and problem solving using hundreds of well-worked up example clinical cases. The resident is expected to attend and actively participate in all lectures and discussion sessions.

The course meets from 8:30 a.m. to 3:00 p.m. The residents are expected to complete considerable reading and studying when the class is not meeting. The course meets Monday through Friday for six weeks.

Goals and Objectives

1. Review in detail the principles and significance of the common laboratory tests.
2. Master the judicious use and selection of laboratory tests for a given clinical situation.
3. Master the interpretation of laboratory tests with a detailed understanding of the pitfalls in their interpretation.
4. Develop an appreciation of the cost factors related to the various test profiles.

On-call Duties

No on-call duties are assigned to the resident during this rotation.
Required Conference/Seminars

In addition to the lectures given as part of this course, a resident must also attend the following conferences:

Clinical Pathology Conference, weekly, residents and faculty present and discuss interesting clinical pathology cases, recent advancements in clinical pathology, and the interpretation of laboratory values in terms of a clinical setting.

Surgical Pathology Unknown weekly conference, residents present their interpretation of unknown cases. Conference is held in the Division of Surgical Pathology at University of Minnesota Medical Center. Residents are responsible for reviewing the cases prior to the conference. Slides are put out for review one week in advance.

Rosai/Sinard Conference, Friday, weekly, residents present a variety of real cases on a theme related to a recent or up-coming faculty residents’ conference.

Basis and Method of Resident Evaluation

The resident’s performance in this course will be evaluated based upon their performance on a multiple choice examination, given at the end of the course. In order to pass this rotation course, a resident must obtain a score of at least 70% of the top score on the examination. If a resident does not pass this examination, he/she will be given a six question essay examination and must satisfactorily answer five of the six questions. If a resident does not pass either examination, he/she will not get credit towards graduation from the residency training program.

Educational Resources Available

An extensive detailed series of lecture notes is provided to the residents during the course lectures. These hand-out comprise a major component of the course. Additional reading can be done from the relevant sections in Henry's Clinical Diagnosis and Management by Laboratory Methods textbook.

Computer Information Systems for Resident Education and Service Duties

The Biomedical Library Computer Center and the residents’ room provide access to computers for literature searching.