SAINT LOUIS UNIVERSITY DEPARTMENT OF PATHOLOGY

MICROBIOLOGY RESIDENT ROTATION

JOHN COCHRAN V.A. MEDICAL CENTER

I. GOALS AND OBJECTIVES

Results obtained from the clinical microbiology laboratory often influence clinical evaluation affecting patient diagnosis and treatment. In addition to development of laboratory skills, the pathologist realizes that correct interpretation of these laboratory tests depends upon integration of laboratory results with clinical practice. The OBJECTIVE of this rotation is to provide opportunities for the pathologist to enhance these skills. Additionally, opportunity for continued bench training in microbiology, immunology and serology is provided. Integration of clinical judgment with microbiology lab results may be realized from multiple sources such as shared information with medical staff during laboratory plate rounds, attendance and participation in Infectious Disease conferences and Tuesday Clinical Pathology conferences, problem solving experiences and alternative textbook/literature review. Another excellent method for developing clinical interpretative skills is by teaching others - specifically teaching other residents and medical students.

II. DURATION OF THE EXPERIENCE

Core rotation of at least one month of basic bench training in Saint. Louis University Microbiology Laboratory is required prior to VA rotation. The resident rotates in the microbiology lab at the VA Hospital for 1-2 months.

III. DUTIES AND RESPONSIBILITIES

Some of the individual tasks are integrated into the first two months of the microbiology rotation. The sequences may vary depending upon resident and/or director discretion. The goal is to accomplish these sometime during the first rotation (2 months) or second rotation (1 month).

* Kodachrome and glass slide unknowns. Discussion with Dr. Gibson.
* Mycology review of positive cultures.
* Continuing education presentation (15-30 minutes) for medical technologists.
* Daily reading and reporting of fungifluor stains. Quality assurance checks and review of evening shift Gram Stains and India Ink preparations.
* Attend Infection Control Committee and appropriate subcommittee meetings.
* Participation in Quality Assurance program.
* Parasitology unknowns. Discussion with Dr. Gibson.
Opportunity to participate in a laboratory-based research project is available.

During the microbiology rotation, the VA Hospital residents also cover the autopsy service at the VA (see separate autopsy rotation objectives).

C. CONFERENCES

1. **V.A. Hospital Conferences:**
   - Infection Control Committee meeting: 2nd Wednesday, 9:30 AM

2. **Saint Louis University Hospital Conferences:**
   - Directors meeting, University Hospital Wednesday 9:15
   - Clinical Pathology Conference, Tuesday Noon
   - Autopsy conference, Wednesday Noon
   - Infectious Diseases Conference, Thursday Noon
   - (First Thursday of each month I.D. Conference is at VA Hospital Conference Rooms, lower level [basement] of the hospital).

IV. TEACHING STAFF

Sandra Gibson, MD, John Cochran VA Medical Center, phone 289-6342 (Microbiology Lab) or 652-4100, Ext. 4032 (office).

V. EDUCATIONAL MATERIALS

Current reference textbooks and Kodachrome study sets are available (see attached list). Additionally, current journal articles and newsletters are available.

VI. MANNER OF SUPERVISION AND EVALUATION

Residents are supervised throughout their rotation by the attending pathologists on service in the Microbiology Laboratory. Residents are evaluated based on their diagnostic and technical ability, their problem solving skills and participation in laboratory activities. Residents are evaluated according to the recommended guidelines of the Microbiology Council of the ASCP Commission on Continuing Education. The evaluation will be completed and discussed with the resident at the end of the rotation.
VII. OUTCOME ASSESSMENT METHODS

Residents are given written examination in parasitology covering proper specimen handling, specimen collection, processing and identification of parasites (17 page examination). Forty-five short history paragraphs and accompanying glass slides covering bacteriology, parasitology, mycology, mycobacteriology and virology are reviewed in oral examination with the pathologist.
MICROBIOLOGY

READING AND REFERENCE MATERIAL

Armed Forces Institute of Pathology, 222 Slides of Infectious and Parasitic Diseases


Ball, Color Guide Infectious Diseases, 1993

*Bailey and Scott, Diagnostic Microbiology, 11th Ed, 2002

Binford (Ed), Pathology of Tropical & Extraordinary Diseases: An Atlas, Vol I & II, 1976

Chandler, Pathologic Diagnosis of Fungal Infections, 1987

Chandler, Diagnosis of Fungal Infections, Teaching Slide Set


Conner, Pathology of Infectious Diseases, 1997


Evans, Medical Mycology: A Practical Approach, 1989

Farrar, Infections Diseases, Text & Color Atlas, 2nd Ed, 1992

Fitzpatrick, Color Atlas and Synopsis of Clinical Dermatology, 2nd Ed, 1992

Garcia, Diagnostic Medical Parasitology, 2nd Ed, 1993

Gibson, Case Studies in Microbiology/Infectious Diseases (Text and Kodachromes of SLU cases)

Gorbach, Infectious Diseases, 1992

Koneman, Diagnostic Microbiology, 5th Ed, 1997


Leventhal, Medical Parasitology – A Self-Instructional Text, 3rd Ed., 1989

*Mandell, Principles and Practices of Infectious Diseases, 6th Ed, 2005


Nakamura, Autoantibodies to Nuclear Antigen (ANA), 2nd Ed, 1985

Orihel, Parasites in Human Tissue, 1995
Rippon, Medical Mycology, 3rd Ed, 1988
Schaechter, Mechanisms of Microbial Disease, 2nd Ed, 1993
Schmidt, Foundations of Parasitology, 1977
Von Lichleng, Pathology of Infectious Diseases, 1991

* Basic texts for good overview of diagnostic microbiology and infectious diseases.

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