

Infectious Disease Consult Service

Location: University of Washington Medical Center

FACULTY CONTACT:

Wesley C. Van Voorhis, MD, PhD

Director, Infectious Diseases Training Program & Professor of Medicine

Address: Box 357185, Room I-104, HSB

UWMC, Seattle, WA 98195-7185

Phone: 206 543-2447

Email: wesley@u.washington.edu

OVERALL EDUCATIONAL PURPOSE

To provide trainees with experience consulting on adult patients with a broad range of acute, subacute, and chronic infectious diseases.

To enhance appropriate diagnostic and therapeutic skills in the management of patients with infectious diseases. To enhance prevention of infectious diseases. This includes improvement of clinical skills in history data collection and physical examination.

To foster communication, confidence, ethics, problem solving, and the delivery of high quality care in a supervised academic environment. Specific goals include effective presentations at ID Grand Rounds, efficient and accurate documentation in patients' records and timely and thorough additions to the electronic medical record, clear communications with other healthcare providers, and excellent teaching skills.

TEAM STRUCTURE

At this hospital, there are 3 separate ID services, one for General Infectious Diseases (Surgery, multiple surgical subspecialties including neurosurgery and cardiothoracic surgery Obstetrics/Gynecology, and General Medicine Patients), one for Solid Organ Transplantation, and one for the Seattle Cancer Care Alliance patients, which includes patients undergoing bone marrow/stem cell transplantation. There is generally a different ID fellow on each of these services.

The General ID service always consists of an ID Attending Physician and an ID Fellow, and usually also has an IM Resident, one to four medical students and one to three pharmacy students.

The Solid Organ Transplantation service consists of an ID Attending Physician (sometimes the same Attending as on General ID) and an ID Fellow.

The Seattle Cancer Care Alliance/FHCRC service consists of an ID Attending Physician, an ID Fellow, an ID Physician's Assistant, and sometimes a visiting resident or fellow and/or Pediatric ID fellow.

PRINCIPAL TEACHING METHODS

Case discussion and review

Last Revised October 8, 2006 by Wes Van Voorhis & Reviewed by Wes Van Voorhis, Paul Pottinger, Walter Stamm, Emily Darby, John Lynch, Ajit Limaye.

Consultations should generally be seen the same day and should be presented within 24 hours to the Attending Physician. Each consultation should culminate in a note in the patient's chart outlining the pertinent findings and recommendations. The note can be written by a student, Resident, or Fellow, but must be read and approved by the Fellow. The Attending Physician should also write a separate note and review the case with the ID team.

Rounds

Work Rounds: The team sees patients followed by the service and reviews patient progress, radiology, lab tests, changes in therapy, etc.

Teaching Rounds: Review and discussion of individual cases seen in consultation in the hospital. This occurs principally in two settings. First, daily work rounds in which the team visits and reviews information about each patient. These rounds are generally supervised by the infectious disease fellow, who teaches residents and students. Second, attending rounds are held on a daily basis, when cases are reviewed by the entire team under the direction of the attending physician. The attending physician teaches all members of the team in these sessions. Important decisions regarding patient management are reviewed and finalized as well.

Microbiology Plate Rounds: Three days a week, the Infectious Disease consult team meets with selected staff in the Clinical Microbiology Laboratory to review relevant microbiological evaluations on patients being followed by the team. Instruction is provided regarding the microbiological methods being used and their appropriate interpretation in the clinical setting. Although microbiology plate rounds are presented formally only three times each week, the Infectious Disease consult fellow is responsible for working with the Clinical Microbiology staff every day.

Didactics

Attending physicians and senior fellows frequently provide didactic lectures on subjects of interest to the team based on recent case evaluations.

Infectious Diseases Clinical Conference is held weekly by the Infectious Disease Division.

Here, problematic and instructive cases are reviewed. Cases and literature reviews are presented by the attending physician and Infectious Disease fellow and resident for discussion among all faculty, residents, students, and fellows. The Powerpoint Files are placed on the ID Division Website for reference.

Hospital Epidemiology

The Solid Organ Transplant fellow attends the monthly UWMC Infection Control committee meeting and selected other sessions with the Hospital Epidemiologist to learn the techniques of hospital infection control and to be aware of current active problems in the hospital.

EDUCATIONAL CONTENT

Mix of Diseases

Patients referred for evaluation by the Infectious Disease consult team encompass a full range of acute, subacute and chronic infections seen in hospitalized adults. These patients often have complex underlying medical problems. Patients are referred from the Medical Service as well as a broad range of other services, including general surgery, surgical subspecialty services (e.g., cardiothoracic surgery, neurosurgery, orthopedic surgery, etc.), neurology, and psychiatry. Patients undergoing hematopoietic stem cell or solid organ transplantation, or those receiving chemotherapy for cancer, are at particularly high risk of infection and are frequently referred for

evaluation by the Infectious Disease service. Patients with HIV infection and AIDS are frequently seen by the service. The mix of diseases seen on the service thus ranges from acute, subacute or chronic community-acquired infections to complicated patients with nosocomial infections, including infections in immunocompromised hosts. Many patients are referred from outlying hospitals or physicians in the Northwest region of the country.

Patient Characteristics

Patients at UWMC are drawn from the complete spectrum of socio-economic status. Patients include both those whose primary care physician is at UWMC and those who are referred from elsewhere, either in Seattle or from outside of Seattle, including Wyoming, Alaska, Montana, Idaho, and Oregon. While many patients have common infections, a high proportion of patients have complex underlying medical or surgical problems that contribute to their susceptibility to infection. The diversity of racial and ethnic groups seen at the hospital reflects that of the surrounding community.

Types of Clinical Encounters

Patients are seen in both the inpatient and outpatient settings. Most commonly, consultations are obtained from both medicine and non-medicine services caring for inpatients. Occasionally, consultations are obtained because patients are being seen in subspecialty outpatient clinics. Patients are also seen in several clinics under the direction of the Infectious Disease division. These include: the Infectious Disease/Tropical Medicine/Travel Medicine clinic at UWMC, which sees many patients with diseases related to travel or parasitic infection; and The Virology Clinic at UWMC, which sees patients with HIV infection as well as patients with viral hepatitis and other viral illnesses. Residents, fellows, and attendings provide consultative services and, in some cases, continuing primary care for these patients.

The UW ID service provides 24hr/365day telephone ID medical consultation through the MEDCON system, as a service to the WWAMI community (Washington, Wyoming, Alaska, Montana, and Idaho). Health care providers in the WWAMI region are routed to the ID fellow on call, who provides telephone consultation regarding ID cases and questions. The questions/cases posed by outside clinicians are discussed with the ID attending and provide an opportunity for discussion/education at ID attending rounds. This activity provides excellent opportunities for the ID fellow to learn about common outpatient ID problems and interact with primary providers in a consultative role. As with all patients who are seen, these telephone consults happen under the supervision of the attending physician.

Procedures

Procedures are rarely performed by the Infectious Disease consult service, but rather are undertaken by the primary care physician or other specialists. Procedures such as joint aspiration, skin biopsy, lumbar puncture, or lymph node aspiration are occasionally performed on outpatients being seen by the Infectious Disease team in HIV/AIDS or other clinic settings.

Services

The Infectious Disease consult service provides round-the-clock on-call evaluation of patients with known or suspected infectious diseases. Opinions are rendered regarding recommendations for diagnosis and therapeutic intervention, as well as for issues related to infection control. These decisions are made in conjunction with the Hospital Epidemiology team. A full range of

laboratory, radiological and microbiologic support services are available, as is an on-site pharmacy.

Rotation Specific Schedule

On Monday-Friday there will be: Work Rounds (8:30-10am) and Attending Rounds (time to be set by attending and fellow but generally in the afternoon).

Monday

11:00- 11:30 AM: Microbiology Plate Rounds (Room NW177, Clinical Micro Lab, attendance required).

11:30 – 12 noon: SCCA Radiology Rounds (attended by SCCA clinicians as well as Pulmonary Critical Care clinicians; very useful interaction)

12-1 PM: IM Resident's conference

1-5 PM: Fellows, Residents, and students are encouraged to attend and see patients at Tropical Medicine & ID Clinic, Medical Specialties Clinic on the 3rd floor of UWMC. This can allow follow up for discharged patients.

Tuesday

11:30 – 12 noon: SCCA Radiology Rounds

12-1 PM: Department of Medicine Chairperson's rounds: D207 (Cases discussed)

Wednesday

11:00- 11:30 AM: Microbiology Plate Rounds (Room NW177, Clinical Micro Lab, attendance required).

11:30 – 12 noon: SCCA Radiology Rounds

12-1 PM: IM Resident's conference

4:30-5:30: Infectious Diseases Clinical Conference, Harborview Medical Center, R&T Bldg, room 109 (attendance required)

Thursday

8-9 AM: Medical Grand Rounds, 6th floor T wing

11.30 – 12 noon: SCCA Radiology Rounds

12-1 PM: IM Resident's conference

Friday

11:00- 11:30 AM: Microbiology Plate Rounds (Room NW177, Clinical Micro Lab, attendance required).

11:30 – 12 noon: SCCA Radiology Rounds

12-1 PM: IM Resident's conference

Call and Weekend Responsibilities

There is no in-hospital night call but there is a responsibility to provide consultative service 24 hours a day. Generally the ID Fellow is responsible for after-hours consultations, although the Fellow is to have at least four 24-hour periods off each month. Generally during the time when the Fellow is off, the Resident will cover the ID service in close consultation with the ID Attending Physician. If a resident or another Fellow is not available, the Attending Physician will provide coverage. Sometimes the ID Fellows and Residents will share after-hours consultation duties, in agreement with the ID Attending Physician.

Principle Educational Materials Used

Recommended Readings

Selected references are maintained by attending physicians and provided as needed to fellows and residents. All members of the team have access to literature searching via computer terminals on the wards and in the libraries. Photocopying is provided for residents and fellows on the Infectious Disease service. Residents have access to libraries both at Harborview Medical Center and UWMC that encompass most relevant texts and journals. The Infectious Disease service maintains a library of relevant subspecialty journals and books that are available to the housestaff team. Recommended textbooks include: Mandell's Principles and Practice of Infectious Diseases and Root's Clinical Infectious Diseases: A Practical Approach.

Pathologic materials

Microbiology plate rounds provides a time to review the microbiology of the patients that are followed. In addition, Fellows and Residents are encouraged to consult the Microbiology Lab Technologists, Clinical Microbiology Attendings, and Laboratory Medicine Resident on weekends and between rounds. The Residents, Fellows, and Attendings frequently review the pathological specimens from their patients with a Pathologist in the Pathology Department.

METHODS USED IN EVALUATING RESIDENT AND PROGRAM PERFORMANCE

At the end of the rotation, the Resident and the Fellow are evaluated in writing and their performance reviewed with them verbally by every Attending with whom he or she has interacted for a significant amount of time. The evaluator rates the Fellows and Resident on a nine-point scale in each component of clinical competence (i.e. patient care, medical knowledge, practice based learning improvement, interpersonal and communication skills, professionalism, system based learning, educational attitudes, leadership, overall clinical competence).

The Fellows and Residents are given the opportunity to evaluate in writing the quality of the curriculum and the extent to which the educational goals and objectives of the rotation have been met. The Fellows and Residents also evaluate the teaching competence of each attending with whom they have interacted for a significant amount of time.

EXPLICIT LINES OF RESPONSIBILITY FOR CARE OF PATIENTS ON THIS SERVICE

Fellows and Residents rotating on Infectious Diseases are expected to assume responsibility for the evaluation and recommendations made by the consult service on their patients. In order to insure optimal patient care, residents evaluate the patients, and discuss them with the supervising Infectious Disease Fellow and Attending within 24 hours. Patients with acute illnesses are discussed immediately upon evaluation. Attending physicians see all patients referred for consultation within 24 hours. Attending physicians are always available to Residents and Fellows through paging and either round with or confer daily with Residents and Fellows. Attending physicians document their involvement with patients by providing a detailed written note on the chart within 24 hours of consultation.