

Infectious Disease Outpatient (IDOP) Service

The Infectious Disease outpatient service provides evaluation and consultative management of those patients with various infectious diseases on an outpatient basis. This includes experiences at the Immune Health Services (IHS), Infectious Disease Outpatient Clinic and the County STD clinic. The Infectious Disease Division faculty is the following:

Timothy Endy, MD, MPH – Chief and Program Director, Division of Infectious Diseases
Donald Blair, MD
Ambika Eranki MD
Mark Polhemus, MD
Elizabeth Reddy, MD
Tasaduq Fazili, MD, FACP
Mitchell Brodey, MD

I. Educational Purpose

The resident in internal medicine should:

- Be competent to evaluate and treat those patients with an infectious disease process as well as understand when a referral to an infectious disease specialist is appropriate.
- Be well-trained in the choice of antimicrobial agents as well as the techniques of infectious disease prevention (i.e. handwashing).
- Be exposed to the various causes of infectious disease (bacteria, fungi, viruses, and protozoa) and the bodily manifestations that result.
 - o Examples of the latter include meningitis/encephalitis, pneumonia/empyema, tuberculosis, infectious endocarditis, infectious colitis, urinary infections, bacteremia/septicemia, cellulitis, abscesses, soft-tissue infections, osteomyelitis, and sexually transmitted diseases.
- Receive training in:
 - o the care of patients with HIV/AIDS.
 - o general infectious diseases
 - o the evaluation and management of fever of unknown origin.
 - o the prevention techniques including handwashing, gowning/masking, instrument cleaning, as well as immunization schedules.
 - o antimicrobial decision-making including cost and pharmacodynamics / pharmacokinetics.
 - o immunology and its importance in infectious disease.

II. Learning Venue

A. Rotation description - The Infectious Disease outpatient service provides care to the community through the IHS, ID Associates and the county STD clinic where housestaff treat patients ages 18 and older, of male and female gender, and of varying ethnicities/cultures. The service sees patients scheduled for routine visits as well as those patients needing same day appointments with problems managed in an outpatient environment. The team consists of the attending, a fellow, a senior resident and/or intern, and mid level practitioners.

****Please Contact Michelle Scott, LPN via email at scottmic@upstate.edu or phone 464-9366 regarding access to the reading list on our website: www.upstate.edu/id and forms for STD Clinic at least 1 week prior to your rotation.****

CURRENT SCHEDULE

DAY	TIME	LOCATION	ACTIVITY	NOTE
MONDAY	815am-12pm	CPOB Suite 211	DAC	Dr. Reddy (467-2573) Dr. Polhemus (467-1445)
TUESDAY	815am-12pm 4pm-5pm	CPOB Suite 311 CPOB Suite 304	VAMC ID Clinic ID Grand Rounds	Dr. Javaid (467-4529) Optional
WEDNESDAY	815am-12pm 330pm-4pm 4pm-5pm	CPOB Suite 311 CPOB Suite 304 CPOB Suite 304	IDA Clinic (ID Assoc) Journal Club Management Conference	Dr. Fazili (441-0643) Optional Optional
THURSDAY	815am-12pm	CPOB Suite 211	DAC Clinic	Dr. Fazili (441-0643)
FRIDAY	9am-12pm	421 Montgomery St	STD Clinic	Dr. Reddy (467-2573)

- 1. *** Please note conferences are ADHOC from 7/1 thru 8/31. Because this rotation is an morning rotation the conferences are listed as optional, however Residents are always welcome and encouraged to attend ID Conferences independent of any rotation schedule based on interest and availability. *****

CPOB: Crouse Physicians Office Building, directly across from Crouse Hospital.

STD Clinic is in the basement of the Syracuse Civic Center, Room 80, 421 Montgomery St.

DAC (Designated AIDS Center) Clinic: Suite 211, CPOB

IDA (Infectious Disease Associates) Clinic Suite 311, CPOB

Expectations of the PGY-1/PGY-2: The resident will

- 1) Complete detailed history and physicals on all patients and complete progress notes for each office visit.
- 2) Have detailed knowledge of every patient evaluated at a particular clinic.
- 3) Be expected to interpret basic laboratory and radiographic tests including gram stains and cultures.
- 4) Demonstrate intellectual curiosity and evidence-based patient care approaches.
- 5) Display professionalism and good communication skills with the team, nurses, patients and families.
- 6) Work efficiently with nursing, social workers and case managers on quality and timely patient care.

Expectations of the Senior Resident: In addition to the above, the senior resident will

- 1) Demonstrate leadership and model professionalism and good communication skills.
- 2) Serve as a resource for team learning.
- 3) Continue to expand their knowledge of infectious diseases with the aid of the reading materials outlined below. (Active mentoring of evidence based pt care should be demonstrated thru the use of PICO's, online searches and interpretation of newer studies)
- 4) Model systems-based practice competencies by working efficiently with nursing, social workers and case managers on quality and timely patient care.

B. Teaching Methods:

1. Daily Patient appointments. The resident who has seen the patient will present the case to the attending and discuss patient issues in order to formulate management plans. The resident will be expected to know each of his patients well, to have collected all relevant data, and to present in a concise, logical format.

2. Recommended Reading:

- Mandell, Douglas, Bennett; Principles and Practices of Infectious Diseases; 8th Edition; Churchill Livingstone 2014
- Bailey & Scott's Diagnostic Microbiology; 12th Edition; Mosby 2007
- Keceas, Crowe, Grayson, Hoy; The Use of Antibiotics; Latest Edition; Butterworth Heinmann
- Sande and Volberding; The Medical Management of AIDS; Latest Edition
- Mayo Clinic Proceeding Review of Antimicrobial Agents
- MKSAP for Infectious Diseases and AIDS
- Armstrong and Cohen; Infectious Diseases; Latest Edition Mosby
- Goodman & Gilman's; The Pharmacological Basis of Therapeutics; Latest Edition; McGraw Hill
- Yu, Merigan, Barriers; Antimicrobial Therapy and Vaccines; Latest Edition Williams & Wilkins
- Dolin, Masur, Saas; AIDS Therapy; Latest Edition Churchill Livingstone
- For recent studies and peer reviewed scientific literature visit the ACP online PIER site <http://pier.acponline.org/index.html?hp>

3. Unique Learning Opportunities:

ID Conference (Tuesdays from 4-5PM) – pre-determined topics are presented here by faculty and fellows.

Case Conference (Wednesdays from 4-5PM) – the faculty and fellows present infectious disease cases to the division.

Journal Club (Wednesday 3:30-4:00 pm) – the faculty and fellows review and critique articles relevant to their specialty.

Microbiology Rounds Wed and Friday at 1:30 – the team will meet with the clinical microbiologists to review material/studies relevant to the team's patients.

Daily Pharmacology Rounds – the team will meet with a clinical pharmacologist to discuss the pharmacokinetics/pharmacodynamics and cost of antimicrobial agents being currently used on the service.

C. Mix of Diseases and Patient Characteristics

1. Common Clinical Presentations and Diseases:

Central Nervous System

- meningitis
- encephalitis
- brain/spinal cord abscess

Respiratory

- pneumonia (bacterial, fungal, viral)
- Tuberculosis
- empyema
- sinusitis
- bronchitis

Skin/Soft Tissue

- cellulitis/erysipelas
- diabetic infections
- abscesses

Bone

- osteomyelitis

Cardiovascular

- infective endocarditis
- aortitis/vasculitis

Genitourinary

- pyelonephritis
- cystitis
- urinary infections

Sexually Transmitted Diseases

- Chlamydia
- Herpes Simplex
- Gonorrhea
- Syphilis
- pelvic inflammatory disease

Reproductive

- orchitis
- epididymitis

Gastrointestinal

- gastroenteritis
- colitis
- infectious diarrhea

Sepsis

Solid Organ Transplantation

- temporal occurrence of infections

Cancer Chemotherapy

- neutropenic fevers

Bioprosthesis Infections

Fever of Unknown Origin

Adult Immunization

Travel-Related Illness

Ophthalmologic Infections

Nosocomial Infections

HIV/AIDS

Illicit Drug-Related Infections

2. Procedures:

- Gram staining and interpretation
- Culturing and interpretation

- PPD testing and interpretation

III. Educational Content

Central nervous system

Brain abscess
Encephalitis
Meningitis
Conjunctivitis
Endocarditis
Fever of unknown origin
Fungal (histoplasmosis, coccidioidomycosis, cryptococcosis)

Gastrointestinal

Biliary tract infection
Gastroenteritis
Infectious diarrhea
Liver abscess
Peritonitis
Viral hepatitis

Genitourinary

Cervical cancer (HPV)
Cervicitis, vaginitis
Common sexually transmitted diseases (gonorrhea, chlamydia, trichomonas, herpes simplex, syphilis)
Pelvic inflammatory disease
Prostatitis, epididymitis
Urethritis
Urinary tract infection
HIV disease (*see* HIV Infection)
Infection in the immunosuppressed patient

Lyme disease

Malaria

Pericarditis

Otitis

Respiratory

Acute epiglottitis, pharyngitis

Empyema

Pneumonia (community and nosocomial), bronchitis

Sinusitis

Upper respiratory infection

Rheumatologic/musculoskeletal

Osteomyelitis

Septic arthritis

Rocky Mountain Spotted Fever

Sepsis, septic shock syndrome

Skin Infections

Cellulitis

Follirulitis

Ulcers

Viral exanthems

Tuberculosis

Active infection

Positive tuberculin skin test

Viral

Cytomegalovirus

Herpes simplex infection

Influenza

Mononucleosis

Varicella zoster infection

AIDS-defining malignancies

Kaposi's sarcoma

Non-Hodgkin's lymphoma

Squamous cell carcinoma (cervix or anus)

Cardiovascular Complications

Cardiomyopathy

Myocarditis

Pericarditis

Dermatologic complications

Bacillary angiomatosis

H. zoster

Kaposi's sarcoma

Molluscum contagiosum

Scabies

Seborrheic dermatitis

Endocrine Complications

Hypoadrenalism

Hypogonadism

Hypothyroidism

Lipodystrophy

Gastrointestinal complications

Diarrhea

Esophageal candidiasis

Esophageal ulcer disease

Hepatomegaly, hepatitis, jaundice

Wasting syndrome

General management

Evaluation and management of early disease

Advance directives evaluation

Assessment of alternative health practices

Assessment of social support systems

Monitoring progression to AIDS

Ongoing staging

Diagnosing AIDS-defining opportunistic infections

Functional assessment

Mental status evaluation

Nutritional assessment

Referral to case-management agencies

Palliative and terminal care

Pregnancy counseling (pretest, post-test, risk factors)

Gynecologic complications

Cervical dysplasia/neoplasia

Pelvic inflammatory disease

Vaginal candidiasis

Hematologic Complications

Anemia

Antiphospholipid antibody
Immune thrombocytopenic purpura
Thrombotic thrombocytopenia purpura
Infectious diseases (see also *Preventive measures* and specific organ-based complications)
Cytomegalovirus disease
Mycobacterial disease
Pneumocystis carinii pneumonia
Syphilis (diagnosis, treatment)
Neurologic complications
Central nervous system mass lesions
Cryptococcal meningitis
Dementia
Myelopathy
Myopathy
Neurosyphilis
Peripheral neuropathy
Polyneuropathy
Wasting syndrome
Ocular Complications
Conjunctivitis
Iritis
Keratitis
Retinitis
Oral complications
Pregnancy counseling (pretest, post-test, risk factors)
Ongoing staging
Diagnosing AIDS-defining opportunistic infections
Functional assessment
Mental status evaluation
Nutritional assessment
Referral to case management agencies
Palliative and terminal care
Preventive measures
Antibiotic prophylaxis
Pneumocystis carinii pneumonia
Tuberculosis
Antiretroviral drug therapy
Immunizations
Mycobacterium avium complex
Protease inhibitor therapy
Toxoplasmosis
Transmission of HIV
Psychiatric Complications
Anxiety-panic disorders
Pain management
Depression
Renal
Lactic acidosis
Renal tubular acidosis

IV. Method of Evaluation

Evaluations are based on the six core competencies. All team members are expected to complete formal evaluations at the end of each rotation using the web-based MedHub evaluation software. Mid rotation verbal feedback should be sought by residents. Residents at all levels of training are evaluated by their attending, peers and students.

V. Rotation-specific Competency Objectives – link to Competency based Learning Objectives

- A. Patient Care/Medical knowledge – this rotation offers concentrated learning in the areas of ID and HIV care. It allows residents to care for patients in the outpatient setting at the DAC, ID Associates and county STD clinic.
- B. Professionalism-Has professional and respectful interactions with patients, caregivers, and members of the inter professional team.
- C. Interpersonal and communication skills – often this rotation will expose residents to diseases related to a person’s private sexual life. Residents will conduct themselves professionally and learn how to effectively elicit sexual history.
- D. Practice based learning -Monitors practice with a goal for improvement, learns and improves via performance audit / feedback, learns and improves at the point of care.
- E. Systems based practice – Residents have the opportunity to learn about coordinating long term care for HIV patients and also the use of OPAT (outpatient antibiotic therapy), indwelling catheters and their complications in the outpatient setting.

Reviewed and revised 02/26/16 Timothy P. Endy, MD