Infectious Disease Outpatient (IDOP) Service Curriculum

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 Designated Aids Center (DAC) 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
Waleed Javaid, MD
Mark Polhemus, MD
Avrille George, MD
Tasaduq Fazili, MD, FACP
David Paar, MD
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 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 DAC 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.

**CURRENT SCHEDULE**

<table>
<thead>
<tr>
<th>DAY</th>
<th>TIME</th>
<th>LOCATION</th>
<th>ACTIVITY</th>
<th>NOTE</th>
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<tbody>
<tr>
<td>MONDAY</td>
<td>1pm-4pm</td>
<td>CGH POB 4K</td>
<td>Travel Health / Practice Managemt</td>
<td>Dr. Brodey (441-1070)</td>
</tr>
<tr>
<td>TUESDAY</td>
<td>8am-12pm</td>
<td>CPOB Suite 211</td>
<td>DAC Clinic</td>
<td>Dr. Blair (247-2057)</td>
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<tr>
<td></td>
<td>12pm-1pm</td>
<td>CPOB Suite 304</td>
<td>HIV Mngt Conference</td>
<td>Dr. George (467-2573)</td>
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<tr>
<td></td>
<td>1pm-4pm</td>
<td>CPOB Suite 211</td>
<td>DAC Clinic</td>
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<tr>
<td></td>
<td>4pm-5pm</td>
<td>CPOB Suite 304</td>
<td>ID Grand Rounds</td>
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<tr>
<td>WEDNESDAY</td>
<td>8am-12pm</td>
<td>CPOB Suite 211</td>
<td>DAC Clinic</td>
<td>Dr. Endy (467-1134)</td>
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<tr>
<td></td>
<td>1pm-4pm</td>
<td>CPOB Suite 211</td>
<td>DAC Clinic</td>
<td>Dr. Fazili (441-0643)</td>
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<tr>
<td></td>
<td>4pm-5pm</td>
<td>CPOB Suite 304</td>
<td>Management Conference</td>
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<td>5pm-530pm</td>
<td>CPOB Suite 304</td>
<td>Journal Club</td>
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<tr>
<td>THURSDAY</td>
<td>8am-12pm</td>
<td>CPOB Suite 211</td>
<td>DAC Clinic</td>
<td>Dr. Javaid (467-4529)</td>
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<td></td>
<td>1pm-4pm</td>
<td>CPOB Suite 211</td>
<td>HCV –DAC Clinic</td>
<td>Dr. Paar (213-0432)</td>
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<tr>
<td>FRIDAY</td>
<td>9am-12pm</td>
<td>421 Montgomery St</td>
<td>STD Clinic</td>
<td>Dr. George (467-2573)</td>
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<td></td>
<td>8am-12pm</td>
<td>CPOB Suite 211. CGH POB 4K</td>
<td>DAC Clinic Travel Health/ Practice Management</td>
<td><strong>(if no STD Clinic please go to DAC Clinic)</strong></td>
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<tr>
<td></td>
<td>1pm-4pm</td>
<td>CGH POB 4K</td>
<td>Travel Health/ Practice Managemt</td>
<td>Dr. Paar (213-0432)</td>
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<td>Dr. Brodey (441-1070)</td>
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**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.**

CPOB: Crouse Physicians Office Building, (directly across from Crouse Hospital) 725 Irving Ave, Syracuse, NY 13210. STD Clinic is in the basement of the Syracuse Civic Center, Room 80, 421 Montgomery St. Syracuse, NY 13210. DAC (Designated AIDS Center) Clinic: Suite 211, CPOB, 725 Irving Ave., Syracuse, NY 13210. CGH POB (Community General Hospital) POB 4K, 4900 Broad Rd, Syracuse NY 13215.

Expectations of the PGY-1: The intern 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; 7th edition; Churchill Livingstone 2000
   - 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](http://pier.acponline.org/index.html?hp)

3. Unique Learning Opportunities:
   a. HIV/AIDS Conference (Mondays 8:30-9:30 a.m.) – didactic sessions covering all aspects HIV/AIDS, but primarily devoted to care of the HIV/AIDS patient.
   b. ID Conference (Tuesdays 4-5 p.m.) – pre-determined topics presented by faculty and fellows.
   c. Case Conference (Wednesdays 4-5 a.m.) – the faculty and fellows present infectious disease cases to the division.
   d. Journal Club (once per month on Fridays 12-1 p.m.) – the faculty and fellows review and critique articles relevant to their specialty.

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
Folliculitis
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
- Polynephropathy
- 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 E-Value evaluation software. Mid rotation verbal feedback should be sought by residents. Residents at all levels of training are evaluated by their attendings, 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, Travel Health and Practice Management. It allows residents to care for patients in the outpatient setting at the DAC, Travel Health Clinic and County STD clinic.

B. Professionalism – Fellow should demonstrate the ability to interact professionally toward patients, colleagues, and all members of the health care team demonstrating the ability to provide care as a member of an interdisciplinary team. Fellow should demonstrate acceptance of professional responsibility as the physician for patients under his/her care at the clinic. Fellow should demonstrate an appreciation of the social context of sexually transmitted diseases. Fellow should demonstrate an understanding of the ethical concepts of confidentiality, consent, and autonomy

C. Interpersonal and communication skills – often this rotation will expose residents to diseases related to a person’s private sexual life or travel history. Residents will conduct themselves professionally and learn how to effectively elicit a comprehensive history.

D. Practice based learning – Fellow should demonstrate the ability to identify and acknowledge gaps in personal knowledge and skills. Fellow should demonstrate the ability to develop and implement strategies for filling gaps in knowledge and skills. Fellow should demonstrate a commitment to professional scholarship, including systematic and critical review of literature, with emphasis on integration of basic science with clinical medicine and the principles of evidence-based medicine

E. Systems based practice – Residents have the opportunity to learn about coordinating long term care for HIV patients and also the use of indwelling catheters and their complications in the outpatient setting.

Reviewed & Revised by: T. Endy, MD
Date Revised: 6/20/12