

Internal Medicine Residency Program Rotation Curriculum

I. Rotation Sites and Supervision

Rotation Name: INFECTIOUS DISEASES CONSULT SERVICE

Rotation Sites

Site 1: UCIMC Faculty Rotation Director: Donald Forthal Phone: (714) 456-3223

Site 2: VAMC Faculty Rotation Director: Robert Kaplan Phone: (562) 826-8000 x3832

II. The educational purpose or rationale for this rotation

- Observe and manage adult patients with acute infectious diseases in inpatients.
- Management of HIV/AIDS and other chronic infections in ambulatory patients.
- Experience using appropriate antibiotics and recognizing their adverse effects.
- Increase awareness of hospital infection control measures.

III. The principal teaching methods for this rotation

- Hands on experience in diagnosis and management of infections
- Interactive teaching rounds with attending physician and fellows
- Demonstrations in clinical microbiological laboratory
- Literature review of diseases encountered
- Didactic seminars

IV. Responsibilities of each of the participants on this rotation

- Medical Student: Assigned two to three in-patients per week; carry out complete history and physical exam; presents patients to fellows and then attending; follows patients and lab results daily; reviews appropriate sections in Mandel and pertinent literature; attend scheduled out-patient clinic sessions.
- Medical Resident: Assigned ³ five in-patients per 40 hour weeks; carries out complete history and physical exam; presents patients to fellows and then attending; follows patients and lab results daily; reviews appropriate sections in medical texts and pertinent literature; attend scheduled out-patient clinic sessions.

Medical Residents: PGY 1 Residents

Patient Care Responsibilities:

Residents are responsible for following a select number of patients on the consult service and in clinic. Patient selection is directed by the fellow or attending. All patient care activities of the consult resident are under direct supervision of the fellow.

Procedures:

The resident can perform procedures appropriate for their level of training on the consult service. All procedures will be performed under the direct supervision of the resident or fellow.

Education:

The residents are expected to contribute on rounds. They are expected to present their patients on rounds, and contribute to the discussion of diagnosis, management, pathophysiology, and any related basic science issues. They will present patients at conference. They are expected to review pertinent medical literature. Guidance from the fellows and senior residents will be provided. The residents will attend the scheduled residency morning and noon conferences and will participate in divisional conferences when not in conflict.

Patient Care:

The PGY1 residents will perform full consultation H&P on all new consults under their care. They will be responsible for collecting all database information, reviewing prior records, following laboratory information, and writing recommendations under direct supervision of the fellow.

Educational Objectives. The PGY1 Resident

1. Will be able to identify the physical findings for endocarditis and meningitis
2. Will be able to identify infectious disease emergencies: Sepsis, deep tissue infection, endocarditis
3. Will be able to obtain a comprehensive history with respect to infectious disease and biologic agents.
4. Will be able to state basic strategies for the selection of appropriate antibiotics.
5. Will be able to prescribe immunization for adults
6. Will be familiar with the diagnosis and management of community acquired pneumonia.
7. Will be familiar with the diagnosis and management of URI and sinusitis
8. Will be familiar with the diagnosis and management of urinary track infection.
9. Will be familiar with the diagnosis and management of infectious diarrhea and biliary track infection.

Senior Residents (PGY2 & 3)

Senior residents will be responsible for all activities noted for PGY1 residents. In addition, these residents will be responsible for contributing substantially to teaching efforts for interns and medical students. The senior residents will place emphasis on Medical Knowledge Management in the context of consultation. The senior residents will participate in divisional conferences when not in conflict with residency conferences and present appropriate cases with literature review and critical appraisal. The senior residents will be available to teach medical students physical diagnosis.

- Fellow: 24 hour call for consultation on acute patients; assigns patients to residents and students; contacts attending for emergency input.
- Attending: 24 hour call for consultation; sees all patient consultations and performs focused history and physical examination; makes final decision on diagnosis and prognosis; conducts teaching rounds daily.

Educational Objectives for Senior Residents

1. Will be able to identify the physical findings for endocarditis and meningitis
2. Will be able to identify infectious disease emergencies: Sepsis, deep tissue infection, endocarditis

3. Will be able to obtain a comprehensive history with respect to infectious disease and biologic agents.
4. Will be able to state basic strategies for the selection of appropriate antibiotics.
5. Will be able to recognize skin lesions associated with infectious diseases: Viral exanthems, meningococcus, Lyme, Rocky Mountain Spotted Fever, molluscum, syphilis
6. Will be familiar with the diagnosis and management of community acquired pneumonia.
7. Will be familiar with the diagnosis and management of URI and sinusitis
8. Will be familiar with the diagnosis and management of urinary track infection.
9. Will be familiar with the diagnosis and management of infectious diarrhea and biliary track infection.
10. Will be able to diagnose and stage HIV disease.
11. Will be able to provide prophylaxis to HIV patients at various stages of disease.
12. Will be familiar with treatment of neutropenic fever
13. Will be familiar with diagnosis and treatment of typical and atypical mycobacterial infection.
14. Will be able to diagnose and treat common sexually transmitted diseases: gonococcal infection, syphilis, chancroid, herpes simplex
15. Will be able to discuss the use of antibiotic susceptibility testing.
16. Will be able to prescribe appropriately for chronic infection such as endocarditis osteomyelitis.
17. Will recognize and treat deep tissue infections.
18. Will be familiar with common infections in immunocompromised patients.

Competency-based Objectives for the Infectious Diseases Consultation Rotation

Patient Care	PGY1	PGY2	PGY3
Complete medical data base (H&P) relevant to Infectious diseases and good patient care overall. Note the diseases and situations listed under educational objectives	Reporter & Interpreter	Manager & Educator	Competent at the level of a well-trained internist
Diagnostic decision making based upon the best evidence with a special emphasis on the utilization of antibiotics and diagnostic procedures in infectious diseases including biopsies and serologies.	Reporter & Interpreter	Manager & Educator: Consistently assures the appropriate utilization of antibiotics.	Competent at the level of a well-trained internist
Involving patients in decisions about their care	Most of the time	All of the time	
Working with other health care professionals to ensure the best care	All of the time		
Teaching patients and families	Most of the time	All of the time	
Patient triage and evaluation of severity	Reporter & Interpreter	Manager & Educator	Competent at the level of a well-trained internist
Response to emergencies	Reporter & Interpreter	Manager & Educator	Competent at the level of a well-trained internist
Commitment to wellness, screening & prevention.	Most of the time	All of the time	
Identification & intervention in psycho-social issues, including domestic violence & depression	Most of the time	All of the time	

Medical Knowledge	PGY1	PGY2	PGY3
Medical illnesses	Reporter & Interpreter	Manager & Educator	Competent to practice independently
Complete differential diagnoses	Reporter & Interpreter	Manager & Educator	Competent at the level of a well-trained internist
Epidemiology & biostatistics	Reporter & Interpreter	Manager & Educator	Competent at the level of a well-trained internist
Research design		Competent in basic issues	Competent in basic issues
Ambulatory medicine	Reporter & Interpreter	Manager & Educator	Competent at the level of a well-trained internist
ICU Medicine	Reporter & Interpreter	Manager & Educator	Competent at the level of a well-trained internist
Recognizing own limitations	All of the time		

Practice-based Learning	PGY1	PGY2	PGY3
Take advantage of patient care to read & learn	Consistently		
Use of medical information resources & search tools	Consistently		
Inspiring others to use Evidence-based resources and make EBM-based decisions	Basic understanding	Consistently	
Applying critical appraisal techniques consistently to patient resources I use for patient care	Basic understanding	Consistently	

Interpersonal & Communication Skills	PGY1	PGY2	PGY3
Create personal relationships with each patient by appropriately engaging them at each encounter	Most of the time	All of the time	
Use of verbal & non-verbal facilitation	Most of the time	All of the time	
Consistently demonstrate appropriate empathy & good listening skills	All of the time		
Respectful communication with colleagues & other professionals	All of the time		
Involve patients & families in discussions about care. Patient education.	Most of the time	All of the time	
I go out of my way to ensure the best possible care.	All of the time		
Enlist patients & families in health care decisions, including their feedback	Most of the time		
My ability to accept & integrate feedback from faculty & peers	All of the time		
I always sit down at the bedside to speak with my patients.	All of the time		

Professionalism	PGY1	PGY3	PGY3
Altruism: patients needs above their own	Most of the time	Most of the time	Most of the time
Confidentiality (including HIPAA)	All of the time		
Ethical behavior	All of the time		
Commitment to excellence	All of the time		
Sensitivity to age, gender, gender-preference, ethnicity, culture & disability	Most of the time	All of the time	
Awareness of duty hours, fatigue in myself &	All of the time		

others, & other outside stresses, including substance abuse & finances			
Commitment to education & to learning	All of the time		Accelerated
Personal insight & self-reflection	Most of the time	All of the time	
Completion of assignments	All of the time		
Timely response to pages	All of the time		
Timely completion of medical records	All of the time		
Conference attendance	Meets requirements		
Hand-offs and sign-outs	Consistently well presented	Consistently of the highest quality	
Leadership skills	Developing	Consistent	Consistent

Systems-based Practice	PGY1	PGY2	PGY3
Cost-effectiveness	Generally aware	Integrates into all plans	
Use of outside resources	Generally aware	Integrates into all plans	
Use of case-management	Generally aware	Integrates into all plans	
Attention to quality, safety, and process improvement	Generally aware	Integrates into all plans	Makes these a top priority in all areas
Identification of systems issues that affect patient care	Developing	Consistently	Consistently
Use of the incident reporting systems to identify systems issues	Developing	Consistently	Consistently
Understanding of the business of medicine, health care systems, & public policy	Developing	Generally aware	Sophisticated understanding

Teaching Skills	PGY1	PGY2	PGY3
Commitment to teaching	Generally aware; expresses importance	Strong commitment	
Use of the microskills of teaching	Developing	Skilled	Skilled
Understanding of the teachable moment	Developing	Skilled	Skilled
Patience with learners	Developing	Skilled	Skilled
Conference presentation	Developing	Basic	Skilled
Patient education & adherence	Basic	Clearly competent	

Organization Skills	PGY1	PGY2	PGY3
Patient care organization systems & practice	Uses systems	Fully integrated; multi-tasks easily	
Ability to prioritize personal issues in accord with personal values & priorities (Get my life in order)	Basic understanding	Consistent focus	
Ability to help others get organized		Advisor	Educator
Organizing for study, reading, & life-long learning	Conscious of necessity	Competent & committed	
Organizing teams to include & prioritize learning & teaching		Competent & committed	
Organizing to obtain & prepare for careers or fellowships	Aware	Competent	

V. Core Suggested Reading for this rotation

Mandell, Bennett, and Dolin. Principles and Practice of Infectious Diseases, Sixth Edition, 2005

Basic Recommended Readings for this rotation come from **Current Medical Diagnosis and Treatment**, 2009. Access these readings at

<http://www.accessmedicine.com/resourceTOC.aspx?resourceID=1>

In addition, you should be familiar with basic practice guidelines in this discipline. Access these at

<http://www.accessmedicine.com/guidelines.aspx?type=1>

Select the appropriate chapters for review. These chapters can be accessed through the Grunigen Medical Library website.

<http://www.accessmedicine.com/resourceTOC.aspx?resourceID=1>

Chapters of specific relevance for this rotation are

Chapter 30 **Common Problems in Infectious Diseases & Antimicrobial Therapy**

Chapter e1 **Anti-infective Chemotherapeutic & Antibiotic Agents**

Chapter 31 **HIV Infection & AIDS**

Chapter 32 **Viral & Rickettsial Infections**

Chapter 33 **Bacterial & Chlamydial Infections**

Chapter 34 **Spirochetal Infections**

Chapter 35 **Protozoal & Helminthic Infections**

Chapter 36 **Mycotic Infections**

VI. Key physical diagnosis skills which should be reviewed during this rotation.

Complete examination with special emphasis on ENT, heart, lung and skin.

VII. Key procedures which the resident should be able to perform.

Safely interview, examine and obtain specimens from patients with communicable and infectious diseases.

VIII. Key tests or procedures which the resident should be able to understand the indications for and to interpret.

X-rays, CAT scans & MRI.

Antibiotic sensitivity assays.

Serum concentration of antibiotics.

Stains and cultures.

Hospital antibiograms.

T-cell subsets

HIV viral loads

IX. The most important diseases or conditions which the resident should see and understand during this rotation.

Pneumonia, meningitis, endocarditis, urinary tract infection, osteomyelitis, hepatitis and HIV/AIDS.

X. Evaluation Methods

Faculty will evaluate each resident's performance using the standard "Internal Medicine Resident Evaluation Form" at the end of each block rotation. Evaluation forms will be submitted to the Residency Program for review by the Program Director and by the Residency Oversight Committee.

Residents will complete evaluations of their attending faculty, their supervising residents, and the rotation itself. These evaluations will be submitted to the Residency Program for Review by the Program Directors and the Curriculum Committee. Copies of evaluations will be submitted to the Division Chiefs for their review

XI. Core Educational Topics and Venues for this Discipline

Outlined in the attached Core Curriculum of Internal Medicine

XII. Resident: Rotation Curriculum

Guidelines for the Use of Antiretroviral Agents in HIV-1-Infected Adults and Adolescents - November 3, 2009

<http://www.aidsinfo.nih.gov/Guidelines/GuidelineDetail.aspx?MenuItem=Guidelines&Search=Off&GuidelineID=7&ClassID=1>

Targeted tuberculin testing and treatment of Latent Tuberculosis Infections.
CDC

MMWR 49 (RR-6) : 1-71, June 9,2000

Diagnosis and management of infective endocarditis and its complications.

Bayer AS, Bolger AF, Taubert KA, et al
Circulation 1998; 98: 2936-2948

King, MD, Humphrey, BJ, Wang, YF, et al. Emergence of community-acquired methicillin-resistant Staphylococcus aureus USA 300 clone as the predominant cause of skin and soft-tissue infections. Ann Intern Med 2006; 144:309.

A comparison of vancomycin and metronidazole for the treatment of Clostridium difficile-associated diarrhea, stratified by disease severity.

Zar FA; Bakkanagari SR; Moorthi KM; Davis MB Clinical Infectious Disease 2007; 45(3) 302-307.

Efficacy and safety of recombinant human activated protein C for severe sepsis.

Bernard GR, Vincent JL, Laterre PF, et al
N Eng J Med. 2001;344:699-709

<http://www.idsociety.org/Content.aspx?id=9088>

(Current Practice Guidelines from Infectious Disease Society of America for common infectious diseases)

Updated 4/10