



Infectious Disease Clinical Rotation Curriculum

Infectious Disease Physicians, Inc.
Inova Medical Center
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I. Objectives: Infectious diseases are seen commonly in the practice of primary care. The Infectious Disease rotation will provide the resident with an opportunity to manage a number of common infectious diseases.

A. The goal of the rotation is to give the resident an understanding of the broad systemic manifestations of infectious diseases and an opportunity to explore the microbiology, prevention, and management of diseases caused by a wide variety of viral, bacterial, fungal and parasitic pathogens as well as HIV.

B. Focus will be on the following issues: identification of those factors that predispose to infection, epidemiology and transmission, clinical manifestations of disease, cost-effective diagnostic evaluation, and focused treatment, with attention to such issues as resistance and antibiotic stewardship.

II. Expectations: residents will demonstrate the ability to take a pertinent history and perform a focused physical exam.

A. The following historical details are important:

1. Risk factors that predispose patients to particular infections, including recent
2. Contacts, pets, travel and family history, sexual history, occupational and environmental exposures, recent surgery/dental procedures or hospitalization, and drug and alcohol use
3. Vaccination history
4. History of symptoms, such as fever curve
5. Timing of symptoms, exposures, and recent antibiotics

B. Residents will become comfortable with conditions requiring urgent identification and treatment, including:

1. Adverse reactions to antibiotics
2. Endocarditis
3. Epidural and brain abscess
4. Meningitis/Encephalitis
5. Necrotizing fasciitis
6. Opportunistic infections in immunosuppressed hosts
7. Perforation and peritonitis
8. Periorbital cellulitis
9. Sepsis, severe sepsis and septic shock
10. Septic joint
11. Toxin-mediated illness

C. Residents should learn to coordinate patient care as part of a larger team, including the primary team, nurse, pharmacist, and social worker to optimize patient care, with R3s taking a leadership role. Residents are responsible for relaying final recommendations to the primary team.

III. Rotation Structure: residents should contact the infectious diseases attending the day prior to determine start time and location.

A. Residents will mainly spend their time in the hospital

B. This will be a “hands-on” learning experience. Each resident will be responsible for at least 1 new consult a day along with 3-4 follow up patients

C. We will do case-based learning and as time allows, ID chalk talk topics:

D. Residents should complete the following Hopkins modules during their elective: HIV part I and II, Immunizations part I and II

IV. Evaluations: feedback will be provided to each resident through out and at the end of the rotation. We will also complete an evaluation on Med Hub. Residents will evaluate faculty in the rotation in an anonymous fashion (summarized annually in composite form). A nurse or case-manager from the clinic may be chosen to evaluate the resident where applicable (360 degree or multi-rater component)

V. Resources:

A. IDSA Clinical Practice Guidelines

1. Desktop version: https://www.idsociety.org/practice-guideline/practice-guidelines/#/+0/date_na_dt/desc/

2. Mobile version: Download IDSA Practice Guidelines on Play store or Apple store. Once downloaded, the apps are listed alphabetically and can connect you to the IDSA website

B. Partners ID Images: <https://www.idimages.org/>

1. Fun 5-10 minute cases from IDWeek that focus on common presentations of uncommon diseases and uncommon presentations of common diseases

C. Sanford Guide: <https://www.sanfordguide.com/>

1. Provided by Inova Medical Center to each resident

2. The guide is best used for looking up details about common infections and antimicrobial treatment. It is especially useful for dosing antimicrobial agents and reviewing their spectrum of activity

D. UW HIV National Curriculum: <https://www.hiv.uw.edu/>

1. There are 6 interactive self-study modules in each of the areas listed above.

E. Gorgas Case of the Week: <https://www.uab.edu/medicine/gorgas/cases-blog>

1. Quick 5-10 minute exercises to walk through interesting Tropical Medicine Cases

2. Transplant ID:

https://ast.digitellinc.com/ast/conferences/6/view?keyword_filter=&tag_filter=93

3. These short whiteboard talks focus on a broad spectrum of transplant topics presented by experts in the field. Transplant in 10 focuses on easy-to-understand explanations of complex topics, simple visuals and quick access.

F. Podcasts: free educational podcasts to discuss current literature and case-based learning

1. <https://sidp.org/podcasts>

2. <https://febrilepodcast.com/consult-notes/>

Learning Venues

1. Supervised patient care/Attending rounds/Attending review of cases in clinic.
2. Small group and Didactic sessions
3. Hospital Committee Attendance
4. Independent reading
5. Pre and post test on the Hopkins modules

Methods of Evaluation

- A. Attending evaluation
- B. Nurse or multi-rater evaluation

C. Direct observation with feedback

D. Internal Medicine In-training exam scores for self-improvement as well as program assessment

Competency: PATIENT CARE	Learning Venues	Evaluation Methods
Demonstrate the ability to perform history & physical exam, interpret ancillary tests to make diagnostic and therapeutic decisions.	1,2,5,6	AC
Provide patient care that is compassionate and effective for the treatment of health problems and promotion of health	1,2,5,6	ABC

Competency: MEDICAL KNOWLEDGE	Learning Venues	Evaluation Methods
Understand the pathophysiology, evaluation, and management of microbiological diseases (bacterial, viral, mycobacterial, parasitic, fungal, and rickettsial).	1,2,4,5	ACD
Understand the pathophysiology, evaluation, and management of HIV and AIDS related infections.	1,2,4,5	AC
Understand the pathophysiology, evaluation, and management catheter related infections, endocarditis, and pneumonia,	1,2,4,5	ACD
Understand the pathophysiology, evaluation, and management central nervous system infections.	1,2,4,5	ACD
Understand the pathophysiology, evaluation, and management GI related infectious illnesses.	1,2,4,5	ACD
Understand the pathophysiology, evaluation, and management of surgical infections.	1,2,4,5	ACD
Understand the pathophysiology, evaluation, and management septic and critically ill patients.	1,2,4,5	ACD
Understand the pathophysiology, evaluation, and management immunocompromised patients such as transplant patients.	1,2,4,5	ACD
Understand the pathophysiology, evaluation, and management febrile neutropenia and other hematological/oncological infections.	1,2,4,5	ACD
Understand the pharmacodynamics and pharmacokinetics of antimicrobial agents.	1,2,4,5	ACD
Understand the pathophysiology, evaluation, and management of sexually transmitted diseases.	1,2,4,5	ACD
Understand the pathophysiology, evaluation, and management of travel related diseases.	1,2,4,5	ACD
Understand the differential diagnosis and a pragmatic approach to fever of unknown origin	1,2,4,5	ACD
Competency: PROFESSIONALISM	Learning Venues	Evaluation Methods
Treats patients, team members, and primary caregivers with respect.	1	ABC
Shows compassion to patients, families, and colleagues.	1	1
Actively participates in consultations and rounds.	1	1
Attends and participates in all scheduled conferences.	1	1
Competency: PRACTICE-BASED LEARNING	Learning Venues	Evaluation Methods
Identify limitations of medical knowledge in evaluation and management of patients with ID disorders and use medical literature, colleagues, ancillary staff, and attendings to address these gaps in medical knowledge	1,2,5,6	ACD
Incorporates feedback into improvement activities.	1,2,5,6	ACD
Competency: SYSTEMS-BASED PRACTICE	Learning Venues	Evaluation Methods
Understands the barriers to optimal care of patients with HIV.	1	ABC

Understands the need for teamwork with multiple caregivers, social work, and case management.	1	ABC
Understand the methods to prevent nosocomial infections on a hospital system level	3,5	AC
Competency: Interpersonal and Communication Skills	Learning Venues	Evaluation Methods
Interact in an effective way with physicians and nurses participating in the care of patients requiring ID consultation or care	1	ABC
Show understanding of differing patient preferences in diagnostic evaluation and management of ID problems	1	AC

All of the above competencies and evaluation methods are applicable to all levels of training, PGY-1, PGY-2 and PGY-3. However, we do expect progressive responsibility as residents progress from PGY-1 to PGY-3 based on the overall progression outlined in the residency curriculum. With regards to Infectious diseases elective, following also are applicable.

Progressive Responsibilities based on level of training:

PGY-1 Residents:

Interns should be experts in gathering information about the patients assigned to them and reporting it to the team. They should be able to obtain a history and physical in a comprehensive manner with a special focus on causes, risk factors for infectious diseases and be able to provide care in a compassionate manner. They should demonstrate competence in interpreting basic labs (urinalysis, cultures, complete blood counts, etc) and radiology (chest X-ray, etc). They should demonstrate understanding of the initial management of common infectious diseases.

PGY-2 Residents:

Second year residents should be proficient in all the responsibilities listed above for interns. Additionally, they should be experts in interpreting basic labs and radiology. They should demonstrate understanding the interpretation of more advanced medical testing (antigen testing, serologies, PCR, CT scan, etc). They should demonstrate understanding of both the initial and ongoing management of common infectious diseases, and begin to understand initial management of more complex and rare infectious diseases. PGY-2 residents must be comfortable in demonstrating knowledge of established and evolving biomedical, clinical, epidemiological, and socio-behavioral sciences and application of this knowledge to patient care as it pertains to infectious diseases.

PGY-3 Residents:

Third year residents should be proficient in all the responsibilities listed above for second year residents. Additionally, they should be experts in interpreting more advanced medical testing (antigen testing, serologies, PCR, CT scan, etc). They should demonstrate understanding of both the initial and ongoing management of more complex and rare infectious diseases. They should be able to educate and guide junior members and students on the team with infectious diseases topics, work-up and management. They should be advocates for their patients with regards to their access to resources, cost-containment, cost-conscious use of medications. They should also advocate for antibiotic stewardship and get involved in quality improvement under the guidance of supervising physicians.