

Program Curriculum

**Washington University School of Medicine
Infectious Disease Fellowship Training Program
Division of Infectious Disease
Department of Medicine**

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I. Introduction and Overview:

A. Education Program

The Washington University School of Medicine Division of Infectious Diseases Fellowship training program is organized to provide training and supervised experience at a sufficient level for the ID fellow to acquire the competency of a specialist in the field of infectious diseases. The Washington University School of Medicine ID training program is a minimum of 2 years in duration. All RRC and ABIM requirements are met in the first two years of training. A third year of ID subspecialty training (primarily for research training) is encouraged for those ID fellows pursuing a career in academic medicine, clinical investigation, or public health. During their training, the ID fellows participate in a formal didactic experience, a wide variety of direct patient care rotations and learning experiences designed to teach all six competencies.

B. Facilities and Resources

Barnes-Jewish Hospital and Veterans Administration Medical Center (John Cochran Division) are sites where the first year fellow provides clinical care and consultation on inpatient services. Outpatient care is provided at Washington University Medical Center and at the Veterans Administration Medical Center. The School of Medicine provides a unique environment for the fellow interested in either clinical or laboratory investigations of infectious diseases. The hospitals in the training program operate nearly 1,500 acute care beds, with more than 50,000 hospital admissions annually. These hospitals act as tertiary care referral centers for many patients throughout the Midwest. The incorporation of the medical center hospitals into the BJC HealthCare network, a corporation of 13 hospitals throughout Missouri and southern Illinois, has insured a continued robust referral base in the era of managed care.

C. Program Components

1. Clinical Experience

Fellows receive clinical training in inpatient and outpatient settings at Barnes-Jewish Hospital and the VA Hospital.

- They see inpatient consults at Barnes-Jewish Hospital, a very busy consultative service that sees surgical infections, nosocomial infectious, osteomyelitis, endocarditis, fungal infections, tuberculosis and a variety of other infections that are admitted to this tertiary referral center.
- Transplant Infectious Disease Service. Fellows see a variety of bacterial, fungal and viral infections in these immunocompromised hosts. Consults

on bone marrow, kidney, heart, heart-lung and liver transplant recipients are seen by this service.

- VA Infectious Diseases Service. Here the fellow sees patients in a chronic care setting, including osteomyelitis, pulmonary infection, endocarditis, nosocomial infection, and surgical infection.
- Washington University Outpatient Clinic. Fellows see both HIV infected and general ID patients in continuity in these clinics. They manage a large number of HIV infected patients in these multidisciplinary clinics, and follow up patients that are discharged from the hospital.
- VA Infectious Diseases Clinic. Fellows see HIV infected and general ID patients in this clinic while they are doing a rotation at the VA Hospital. This is in addition to their continuity clinic listed above.
- Elective rotations – First year fellows can do electives in Hepatology, Infection Prevention, Patient Safety and on the Bone and Joint service, and in Pediatric Infectious Diseases at St. Louis Children’s Hospital.

2. Specific Program Content

a. Medical Knowledge

ID subspecialty residents (ID fellows) have clinical experiences or formal instruction (e.g., didactic course, clinical and research conferences) in the prevention, evaluation, and management of the following disorders:

- The febrile patient; specifically presenting in association with rash or as fever of unknown origin
- Upper respiratory tract infections
- Pleuropulmonary and bronchial infections
- Urinary tract infections
- Peritonitis and other intra-abdominal infections
- Cardiovascular infections
- Central nervous system infections
- Skin and soft tissue infections
- Infections related to trauma, including burns and animal and human bites
- Gastrointestinal infections and food poisoning
- Bone and joint infections
- Infections of the reproductive organs
- Sexually transmitted diseases
- Infections of the eye
- Viral hepatitis
- Sepsis syndromes
- Nosocomial infections

- HIV infection and acquired immunodeficiency syndrome
- Infections in the immunocompromised or neutropenic host
- Infections in patients with acute leukemia and lymphomas
- Infections in transplant recipients
- Infections in solid organ transplant recipients
- Infections in geriatric patients
- Infections in travelers
- Infections in parenteral drug abusers

3. Conference, Educational Programs and Teaching Experiences

- Core Curriculum Conference is held once per week. This is a didactic lecture series over a two year cycle covering relevant topics in Infectious Diseases.
- ID Grand Rounds (multidisciplinary conference) held weekly. For this conference the fellows select (in consultation with the ID attending) the cases and present them to all faculty and other attendees. They show photographs, slides and x-rays relevant to the case, and present a review of the literature.
- Basic Science Conference held once per month.
- HIV Clinical Conference which is a weekly one hour session discussing interesting problems among HIV outpatients under the care of the ID residents/attendings. Occasionally, there might be an invited speaker to this conference.
- Research Conference held 3 times per month.
- ID Journal Club is held once per month. The fellows critically review journal articles and present current information about the topic. Each fellow prepares two journal clubs per year, and participates in all of them.
- CPC/Morbidity & Mortality Conference held four times per month through the Department of Internal Medicine.
- Internal Medicine Ground Rounds. Fellows have the opportunity to attend Internal Medicine Grand Rounds and numerous subspecialty conferences.

4. Research

Hospital epidemiology training is offered to all fellows, and further specialization in this area as a clinical investigator is available. Through computer programs developed by Division faculty in association with others in the Department of Medicine and the Division of Biostatistics, investigators in the Division are able to track all positive cultures, antibiotic therapy and patient outcome. This is a powerful tool for investigations of hospital epidemiology and is now planned for

extension to all hospitals in the extended BJC referral network. The Division operates an NIH-supported AIDS Clinical Trials Unit (ACTU), with more than 200 new patients enrolled in clinical trials annually. The presence of the ACTU, coupled with an active HIV clinic that follows approximately 875 HIV-positive patients, offers many clinical research opportunities in HIV disease and AIDS (including training in the design and conduct of clinical trials) as well as the opportunity for training in state-of-the-art care for HIV positive patients. Collaborative research opportunities with investigators conducting clinical and laboratory research in HIV-related virology, neurology hepatology and malignancy are also available, as are active clinical research and training programs in sexually transmitted diseases and tuberculosis. The research laboratories of the fellowship training program operate with the philosophy that investigations into the pathogenesis of infectious diseases are carried out at the highest possible molecular resolution. Laboratories are focused on investigations into the pathogenesis of bacterial, fungal, parasitic, viral and mycobacterial diseases. Research is ongoing on malaria, global helminth eradication, filariasis, West Nile Virus, Neuroimmunology, Human Immunodeficiency Virus, Clostridium difficile and many other infections. In 2013, the research faculty of the Division were principal investigators on NIH grants totaling more than \$25 million. Fellows in research training are supported by an NIH-sponsored Infectious Diseases/Basic Microbial Pathogenesis Training Grant, now in its 32nd year.

5. Evaluation of Infectious Disease Fellows

At the end of each rotation the attending reviews the fellow's performance electronically and provides verbal feedback. Evaluations include patient care, medical knowledge, practice-based learning improvement, professionalism, system based learning, medical record keeping and attendance/presentation at conferences. In addition, the program director meets with each fellow at least twice per year to review their performance and provide any necessary counseling. If an ID fellow has a rotation at another hospital (i.e. Veteran's Administration Medical Center) the attendings also fill out an evaluation form and send it to the program director. Their outpatient clinic performance is evaluated by their attending twice a year. Clinic staff nurses, nurse practitioners and office staff fill out a 360 evaluation of fellows.

II. Clinical Experiences: Goals and Objectives

A. Inpatient Rotations

1. General ID Consult Service

This rotation is an elective rotation designed to increase exposure to in-patient infectious disease problems. Generally a four week rotation, the fellow will spend time on the ID consult service which sees a wide range of in-patient infectious diseases on medicine wards as well as the surgical subspecialties, including HIV-infected in-patients.

- a. Patient Care Goal: Fellows will provide patient care that is competent, compassionate, appropriate and effective for the treatment of health problems and the promotion of health.

Objectives:

- Gather accurate information about patients, including an appropriate ID-related history and physical examination with particular attention given to travel history, pet or animal exposure, prior infections, immunization, sexual history,; interpret physical findings such as rashes, adenopathy, wound signs of infection, joint swellings, etc.
- Synthesize data into a prioritized problem list and differential diagnosis, then formulate diagnostic and therapeutic plans
- Appropriate monitoring and follow up of patients

- b. Medical Knowledge Goal: Fellows will demonstrate knowledge about established and evolving pathophysiological, biomedical, clinical, and cognate (e.g. epidemiological and social behavioral) sciences and the application of this knowledge to patient care.

Objectives:

- Demonstrate an increasing fund of knowledge in the range of common problems encountered in the practice of infectious diseases and utilize this knowledge in clinical reasoning. The fellow will become familiar with the diagnostic and therapeutic approach to patients with common infectious syndromes, including (but not limited to)
- Septic shock
- Fever of unknown origin
- Fever in nosocomial settings and in, immunosuppressed hosts

- Choice and cost-effective use of major antibiotic groups; incorporating understanding of their indications, contraindications, complications and limitations
 - Use of empirical antibiotic therapy, understand the significance and be able to interpret antibiotic sensitivity testing
 - Understand the etiology, pathogenesis, clinical presentation, natural history, diagnosis and management of the following diseases:
 - Pneumonia, including community-acquired and health-care acquired
 - Tuberculosis and other mycobacterial diseases
 - HIV/AIDS
 - Meningitis & other common CNS infections
 - Urinary tract infections
 - Skin, soft tissue infections
 - Bone and joint infections
 - Bloodstream infections including infective endocarditis and catheter-related infections
 - Fungal infections
 - Trance – associated infections
 - Learn about the diagnosis and management of infections in HIV-infected patients who are hospitalized
- c. Practice-based Learning and Improvement Goal: Fellows must be able to investigate and evaluate their patient care practices, appraise and assimilate scientific evidence, and improve their patient care practices based on constant self-evaluation and lifelong learning.

Objectives:

- Fellow will utilize an evidence-based approach to patient care when deciding on optimal treatment plans including appropriate and timely access to the medical literature.
- Use information technology including the resources available through the library system online to provide pertinent literature to the ID team and the patient's requesting team.
- Educate the patient and patient's family about the diagnosis or the approach to reach the diagnosis, the management plan and the expected clinical outcome in a way that is both culturally appropriate and accessible to the patient and his/her family.
- Teach the students, residents and other health care professionals about the infectious disease issues including isolation procedures and will provide literature to the health care providers and the team regarding infectious disease issues that are relevant to the cases seen.

- d. Interpersonal and Communication Skills Goal: Fellows must demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, patients' families, and professional associates and trainees.

Objectives:

- Work with the requesting physician to appropriately formulate a focused question for the basis of an infectious disease consult
- Effectively interview the patient, family members and staff to obtain a comprehensive assessment of the important clinical issues to be addressed
- Communicate concisely with team members in formal and informal daily follow-up of the patients
- Update patients on the status of their health and their test results in a compassionate and clear manner that is appropriate to the patient's level of medical understanding
- Written and verbal communication with the requesting physician and team will include subjective and objective information pertinent to the ID problems being addressed

- e. System-Based Practice Goal: Fellows must demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value.

Objectives:

- Work effectively with others (such as nurses, secretaries, nutritionist, interpreters, technicians) as a member of a health care team
- Advocate for quality patient care and assist patients in dealing with system complexities
- Understand and appreciate the importance of contacting the patient's primary care provider at the time of admission or soon thereafter
- Residents should develop proficiency in leading the health care team, organizing and managing medical care
- Learn the cost-effective use of diagnostic and therapeutic technology

- f. Professionalism Goal: Fellows will demonstrate a commitment to carrying professional responsibilities, adherence to ethical principles, and sensitivity diverse patient population and staff.

Objectives:

- Demonstrate respect, compassion, and integrity
- Demonstrate a commitment to excellence and on-going professional development
- Demonstrate a commitment to ethical principles pertaining to provision or withholding of clinical care, confidentiality of patient information, informed consent, and other aspects of clinical care
- Develop an appreciation for the ethical, cultural and socioeconomic dimensions of illness, demonstrating sensitivity and responsiveness to patients' culture, age, gender and disabilities

g. Teaching Methods

- Progressive, graduated responsibility for the evaluation of patients, formulation of diagnostic and therapeutic plans, writing of order, and performance of procedures, all under that supervision of attending physicians
- Daily Teaching Bedside Rounds
- Weekly conference
- A weekly ID Grand Rounds will expose housestaff to interesting clinical cases, complete with literature review and faculty discussion
- A weekly Core Curriculum lecture will provide didactic teaching on a variety of ID topics
- A weekly HIV Conference will provide didactic teaching on topics specific to the care of HIV positive patients
- A weekly microbiology conference in infectious diseases will lead to adequate exposure to microscopic samples
- A monthly Journal Club will expose the house staff to recent clinical and laboratory investigation
- A reading list of pertinent review articles will be provided on the ID website
- House Staff library of textbooks, available 24 hrs/day
- Washington University (Becker) Library of Medicine

2. Transplant ID Consult Service: Goals and Objectives

The Transplant Infectious Disease Clinic offers the infectious disease fellow the opportunity to observe the outpatient management of post-solid organ transplant patients with infectious disease complications. In addition, the clinic evaluates patients pre-transplant and emphasizes the appropriate screening evaluations, prophylaxis including pre-transplant vaccination and risk reduction.

- a. Patient Care Goal: Fellows will provide patient care that is competent, compassionate, appropriate and effective for the treatment of health problems and the promotion of health.

Objectives:

- The ID fellow will be able to formulate a comprehensive approach to the evaluation of pre-transplant patients including obtaining a complete and accurate medical history with appropriate details about infectious disease exposures and other screening considerations.
- The ID fellow will be able to obtain a comprehensive and accurate medical and travel history on patients after solid organ transplantation.
- The ID fellow will be able to perform a comprehensive and accurate physical examination with added elements pertinent to the individual's differential diagnosis.

- b. Medical Knowledge Goal: Fellows will demonstrate knowledge about established and evolving pathophysiological, biomedical, clinical, and cognate (e.g. epidemiological and social-behavioral) sciences and the application of this knowledge to patient care.

Objectives:

- The ID fellow will gain an understanding of those issues unique to transplantation and transplant infectious disease including but not limited to:
 - Graft rejection
 - Graft vs. Host Disease
 - Immunosuppressive medications and toxicities
 - Diagnosis of Opportunistic Infections
 - CMV
 - Invasive fungal disease
 - Respiratory viruses
 - EBV and PTLD
 - Other Herpesviruses
 - Polyoma virus
 - Bacterial infections common to the transplant recipient
 - Other Opportunistic infections
 - Treatment of Opportunistic Infections as mentioned above
 - Prevention and prophylaxis of Opportunistic Infections mentioned above
 - Pre-transplantation evaluation

- c. Professionalism Goal: Fellows demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population and staff.

Objectives:

- The ID fellow will demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients, their families and society that supercedes self-interest; accountability to patients, society, and the profession; and a commitment to excellence and on-going professional development.
- The ID fellow will demonstrate sensitivity and responsiveness to patients' culture, age, gender, sexual orientation and disabilities both in their interactions with patients and in discussions with members of the multidisciplinary team caring for the patient. The ID fellow will respect the patient's privacy by adhering to HIPAA rules.
- The ID fellow will respect patient autonomy and will discuss potential diagnostic and therapeutic approaches with the patient before recommending a definitive approach to care.
- The ID fellow will gain an understanding of the ethical issues which arise in patients who have undergone organ transplantation or those considering organ transplantation.

- d. Interpersonal and Communication Skills Goal: Fellows must demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, patients' families, and professional associates and trainees.

Objectives:

- The ID fellow will update patients on the status of their health and their test results in a compassionate and clear manner that is appropriate to the patient's level of medical understanding.

- e. System-Bases Practice Goal: Fellows must demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value.

Objectives:

- The ID fellow will demonstrate competence in interacting with multidisciplinary team members including travel nurses and physicians.

- The ID fellow will interact with home health services and health departments in the management of specific infectious diseases including but not limited to outpatient antibiotic therapy.
 - The ID fellow will gain an understanding of the organ procurement system in the United States including considerations of listing for transplantation and donor organ selection.
- f. Practice-Based Learning and Improvement: Fellows must be able to investigate and evaluate their patient care practices, appraise and assimilate scientific evidence, and improve their patient care practices based on constant self-evaluation and life long learning.

Objectives:

- The ID fellow will utilize an evidence-based approach to patient care when deciding on optimal treatment plans including appropriate and timely access to the medical literature. This will include evaluating the scientific evidence regarding transplantation prophylaxis and treatment protocols.
- The ID fellow will use information technology including internet-based resources and national guidelines to maintain current knowledge in patient management.

2. VA Inpatient Consult Service: Goals and Objectives

The main objective for the Infectious Diseases Inpatient Consultation Service are to understand the basic principles of the etiology, pathophysiology, clinical manifestations, epidemiology, diagnosis, complications, and therapy of infectious diseases in the context of the inpatient Veterans Administration patient population and environment.

a. Patient Care Goals and Objectives:

- Gather accurate information about patients, including performing a thorough history and physical examination
- Synthesize data into a prioritized problem list and differential diagnosis, then formulate diagnostic and therapeutic plans
- Monitor and follow up patients appropriately
- Prioritize each day's work (for self and entire team)
- Communicate plan to referring physicians

b. Medical Knowledge Goals and Objectives:

General Infectious Diseases

- Know the common etiologies, clinical manifestations, complications, diagnosis and therapy of infections of bone and

joint, skin and soft tissue, respiratory tract, central nervous system, cardiovascular system, gastrointestinal tract, and genitourinary tract, particularly in the setting of the VA population

- Be aware of the pathogenesis, etiologies and workup of fever of unknown origin (FUO) in the VA setting
- Understand the common etiologies, clinical manifestations, diagnostic approach and treatment principles of infection in the immunocompromised host
- Appreciate the ways in which multiple chronic diseases influence the host response to infectious disease processes
- Know how to recognize, diagnose and manage endovascular infection, endemic and opportunistic mycoses, and infection in the immunocompromised host
- Become familiar with the use of antimicrobials and aware of their adverse effects and complications
- Understand the development of resistance to antimicrobial agents
- Appreciate the principles of infection control and hospital epidemiology
- Be familiar with the presentation and be able to recognize bioterrorism-related diseases
- Learn to evaluate the primary clinical infectious diseases literature and utilize this literature to implement effective therapeutic measures

HIV/AIDS Care

- Understand the pathogenesis of HIV and its relation to the principles of antiretroviral therapy and long-term outcomes
- Know the currently approved antiretroviral drugs and how we use them. Be able to recognize and manage antiretroviral adverse effects
- Learn the most frequent forms of presentation of opportunistic infections and neoplasia that affect HIV positive patients
- Understand the principles of antiretroviral prophylaxis after exposure to needle stick injuries
- Assess and encourage adherence to antiretroviral therapy

c. Practice-Based Learning and Improvement: Goals and Objectives

- Understand the limitations of one's knowledge and judgment; ask for help when needed; be self-motivated to acquire knowledge
- Accept feedback, learn from own errors and develop self-improvement plans
- Use information technology to manage information and access on-line medical information

- Learn how to apply knowledge of study designs and statistical methods to the critical appraisal of clinical studies and to the care of patients
 - Learn how to effectively find and incorporate up-to-date literature for the management of patients
- d. Interpersonal and Communication Skills: Goals and Objectives
- Demonstrate caring and respectful behaviors with patients, families, including those who are angry and frustrated; and all members of the health care team
 - Counsel and educate patients and their families
 - Sensitively discuss new HIV diagnoses, encourage partner notification, and respect patient wishes about disclosure of their diagnosis
 - Facilitate the learning of students and other health care professionals in oral presentation and in CPRS notes
 - Communicate with referring physicians regularly
- e. Professionalism: Goals and Objectives
- Demonstrate respect, compassion, and integrity
 - Demonstrate a commitment to excellence and on-going professional development
 - Demonstrate a commitment to ethical principles pertaining to provision or withholding of clinical care, confidentiality of patient information, informed consent, and other aspects of clinical care
 - Develop an appreciation for the ethical, cultural and socioeconomic dimensions of illness, demonstrating sensitivity and responsiveness to patients' culture, age, gender, and disabilities
 - Display initiative and leadership; be able to delegate responsibility appropriately
- f. System-Based Practice: Goals and Objectives
- Work effectively with other (such as nurses, secretaries, social workers, nutritionist, physical and occupational therapists, technicians) as a member of health care team
 - Work closely with the microbiology laboratory, pathology and pharmacy to facilitate consultations
 - Advocate for quality patient care and assist patient in dealing with system complexities
 - Understand and appreciate the importance of contacting the patient's referring physician as soon as possible
 - Develop proficiency in organizing and managing consultative care

- Learn the cost-effective use of diagnostic and therapeutic technology

B. Outpatient Rotation

1. Ambulatory ID

This rotation provides an opportunity to gain experience in diagnosis and management of patients who have been referred for subspecialty consultation and follow-up care in the infectious diseases clinic with a special emphasis on HIV/AIDS.

- a. Patient Care Goal: Fellows will provide care that is competent, compassionate, appropriate and effective for the treatment of health problems and the promotion of health.

Objectives:

- Gather accurate information about patients, including performing a thorough history and physical examination
- Synthesize data into a prioritized problem list and differential diagnosis, and then formulate diagnostic and therapeutic plans.
- Monitor and follow up patients appropriately
- Communicate plan to referring physicians

- b. Medical Knowledge Goal: Fellows will demonstrate knowledge about established and evolving pathophysiological, biomedical, clinical, and cognate sciences and the application of this knowledge to patient care.

Objectives: HIV/AIDS Care

- Understand and appreciate the impact of HIV and AIDS on human health.
- Know the principles of primary care of the HIV infected patient
- Understand the pathogenesis of the HIV infection and its relation to the principles of antiretroviral therapy.
- Know the currently approved antiretroviral drugs and how we use them.
- Learn the most frequent forms of presentation of opportunistic infections and neoplasias that affect HIV positive patients. Learn their treatment and prophylaxis.
- Understand the importance of adherence to antiretroviral treatment and how to improve it
- Specific problems of HIV infected women. Pregnancy in the HIV infected patient.

- Understand the principles of antiretroviral prophylaxis after exposure to needle sticks.

General Infectious Diseases

- Know the clinical manifestations, complications and therapy of bone and joint infection.
- Be aware of the pathogenesis, etiologies and workup of fever of unknown origin in the community setting.
- Become familiar with outpatient use of antimicrobials and aware of their adverse effects and complications.
- Know how to diagnose and manage endovascular infection, endemic and opportunistic mycoses, and infection in the immunocompromised host.

- c. Practice-based Learning and Improvement Goal: Fellows must be able to investigate and evaluate their patient care practices, appraise and assimilate scientific evidence, and improve their patient care practices based on constant self-evaluation and life long learning.

Objectives:

- Understand the limitations of one's knowledge and judgment, ask for help when needed, and be self-motivated to acquire knowledge.
- Accept feedback, learn from own errors and develop self-improvement plans.
- Use information technology to manage information and access on-line medical information.
- Learn how to use knowledge of study designs and statistical methods to the critical appraisal of clinical studies and apply to the care of patients.
- Learn how to effectively find and incorporate up-to-date literature for the management of the patients.

- d. Interpersonal and Communication Skills Goal: Fellows must demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, patients' families, and professional associates and trainees.

Objectives:

- Demonstrate caring and respectful behaviors with patients, families, including those who are angry and frustrated, and all members of the health care team.
- Counsel and educate patients and their families

- Sensitively discuss new HIV diagnoses, encourage partner notification, and respect patient wishes about disclosure of their diagnosis.
 - Conduct supportive and respectful discussions of code status and advance directives for patients for whom they are primary care givers.
 - Demonstrate ability to convey clinical information accurately and concisely in oral presentation and in chart notes.
 - Communicate with referring physicians regularly.
 - Dictate consult summaries promptly.
- e. Professionalism Goal: Fellows will demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population and staff.

Objectives:

- Demonstrate respect, compassion, and integrity.
 - Demonstrate a commitment to excellence and on-going professional development.
 - Demonstrate a commitment to ethical principles pertaining to provision or withholding of clinical care, confidentiality of patient information, informed consent, and other aspects of clinical care.
 - Develop an appreciation for the ethical, cultural and socioeconomic dimensions of illness, demonstrating sensitivity and responsiveness to patients' culture, age, gender, and disabilities.
 - Display initiative and leadership.
 - Be able to delegate responsibility appropriately.
- f. System-Based Practice: Fellows must demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value.

Objectives:

- Work effectively with others (such as nurses, secretaries, social workers, nutritionist, interpreters, physical and occupational therapists, technicians) as a member of a health care team.
- Work closely with the microbiology laboratory, pathology and pharmacy to facilitate consultations.
- Advocate for quality patient care and assist patients in dealing with system complexities.

- Understand and appreciate the importance of contacting the patients referring physician as soon as possible.
- Develop proficiency in organizing and managing consultative care.
- Learn the cost-effective use of diagnostic and therapeutic technology.

Teaching Methods:

- Fellows presentation to the attending infectious disease physician with immediate feedback and examination room/bedside teaching.
- ID Grand Rounds
- ID Fellow Core Curriculum
- ID Journal Club
- HIV Conference
- Clinic Pearls

3. VA Infectious Disease Clinic

This rotation provides an opportunity to gain experience in diagnosis and management of patients who have been referred for subspecialty consultation and follow-up care in the VA infectious diseases clinic with a special emphasis on HIV/AIDS.

a. Patient Care: Goals and Objectives

- Gather accurate information about patients, including performing a thorough history and physical examination
- Synthesize data into a prioritized problem list and differential diagnosis, and then formulate diagnostic and therapeutic plans.
- Monitor and follow up patients appropriately
- Communicate plan to referring physicians

b. Medical Knowledge: Goals and Objectives (HIV/AIDS Care)

- Understand and appreciate the impact of HIV and AIDS on human health.
- Know the principles of primary care of the HIV infected patient in the VA setting.
- Understand the pathogenesis of the HIV infection and its relation to the principles of antiretroviral therapy.
- Know the currently approved antiretroviral drugs and how we use them.

- Learn the most frequent forms of presentation of opportunistic infections and neoplasia that affect HIV positive patients in the VA settings. Learn their treatment and prophylaxis.
 - Understand the importance of adherence to antiretroviral treatment and how to improve it.
 - Understand the principles of antiretroviral prophylaxis after the exposure to needle sticks.
- c. Practice-based learning and improvement: Goals and Objectives
- Understand the limitations of one's knowledge and judgment, ask for help when needed, and be self-motivated to acquire knowledge.
 - Accept feedback, learn from own errors and develop self-improvement plans.
 - Use information technology to manage information and access on-line medical information.
 - Learn how to use knowledge of study designs and statistical methods to the critical appraisal of clinical studies and apply to the care of patients.
 - Learn how to effectively find and incorporate up-to-date literature for the management of the patients.
- d. Interpersonal and Communication Skills: Goals and Objectives
- Demonstrate caring and respectful behaviors with patients, families, including those who are angry and frustrated, and all members of the health care team.
 - Counsel and educate patients and their families.
 - Sensitively discuss new HIV diagnoses, encourage partner notification, and respect patient wishes about disclosure of their diagnosis.
 - Conduct supportive and respectful discussions of code status and advance directives for patients for whom they are primary care givers.
 - Demonstrate ability to convey clinical information accurately and concisely in oral presentation and in chart notes.
 - Communicate with referring physicians regularly.
- e. Professionalism
- Demonstrate respect, compassion, and integrity
 - Demonstrate a commitment to excellence and on-going professional development.
 - Demonstrate a commitment to ethical principles pertaining to provision or withholding of clinical care, confidentiality of

patient information, informed consent, and other aspects of clinical care.

- Develop an appreciation for the ethical, cultural and socioeconomic dimensions of illness, demonstrating sensitivity and responsiveness to patients' culture, age, gender, and disabilities.
- Display initiative and leadership.
- Be able to delegate responsibility appropriately.

f. System-based practice

- Work effectively with others (such as nurses, secretaries, social workers, nutritionist, physical and occupational therapists, technicians) as a member of a health care team.
- Work closely with the microbiology laboratory, pathology and pharmacy to facilitate consultations.
- Advocate for quality patient care and assist patients in dealing with system complexities.
- Understand and appreciate the importance of contacting the patient's referring physician as soon as possible.
- Develop proficiency in organizing and managing consultative care.
- Learn the cost-effective use of diagnostic and therapeutic technology.

g. Teaching Methods:

- Resident presentation to the attending infectious disease physician with immediate feedback and examination room/bedside teaching.
- ID Grand Rounds
- ID Fellows Curriculum
- ID Journal Club
- Research Conference
- VA ID-Microbiology Conference
- VA HIV Case Discussion