

**ACGME International** 

Advanced Specialty Program Requirements for Graduate Medical Education in Infectious Disease (Internal Medicine)

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### ACGME International Specialty Program Requirements for Graduate Medical Education in Infectious Disease (Internal Medicine)

#### Int. Introduction

Background and Intent: Programs must achieve and maintain Foundational Accreditation according to the ACGME-I Foundational Requirements prior to receiving Advanced Specialty Accreditation. The Advanced Specialty Requirements noted below complement the ACGME-I Foundational Requirements. For each section, the Advanced Specialty Requirements should be considered together with the Foundational Requirements.

# Int. I. Definition and Scope of the Specialty

The medicine based specialty of infectious disease concerns the interfacebetween humans and the microbial world, and the associated consequences of infection, including the development and employment of strategies to prevent and treat infectious diseases. Infectious disease is the subspecialty of internal medicine that focuses on the epidemiology, etiology, diagnosis, prevention, and treatment of infectious diseases and syndromes. Infectious disease fellowships provide advanced education to allow fellows to acquire competence in these domains with sufficient expertise to act as independent consultants, both for individual patients and on a population level.

### Int. II. Duration of Education

Int. II.A. The educational program in infectious disease must be 24 or 36 months in length.

# I. Institution

# I.A. Sponsoring Institution

I.A.1. A fellowship in infectious disease must function as an integral part of ACGME-I-accredited residency in internal medicine.

# I.B. Participating Sites

I.B.1. <u>Clinical education should be conducted at participating sites that, in</u> <u>aggregate, have ACGME-I- accredited programs in general surgery,</u> <u>obstetrics and gynecology and other medical and surgical subspecialties.</u>

# II. Program Personnel and Resources

#### II.A. Program Director

See International Foundational Requirements, Section II.A.

#### II.B. Faculty

See International Foundational Requirements, Section II.A.

# II.C. Other Program Personnel

See International Foundational Requirements, Section II.C.

### II.D. Resources

- II.D.1. A laboratory for clinical microbiology must be conveniently located for routine fellow access to laboratory personnel.
- II.D.2. Facilities for the isolation of patients with infectious diseases must should be available.

### III. Fellow Appointment

### III.A. Eligibility Criteria

III.A.2. Prior to appointment in the program, fellows should have completed an ACGME-I-accredited residency program in internal medicine, or an internal medicine residency program acceptable to the Sponsoring Institution's Graduate Medical Education Committee.

# III.B. Number of Fellows

See International Foundational Requirements, Section III.B.

### IV. Specialty-Specific Educational Program

# IV.A. ACGME-I Competencies

IV.A.1.	The program must integrate the following ACGME-I Competencies into the curriculum.
IV.A.1.a)	Professionalism
IV.A.1.a).(1)	Fellows must demonstrate a commitment to professionalism and an adherence to ethical principles.
IV.A.1 b)	Patient Care and Procedural Skills
IV.A.1.b).(1)	Fellows must provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. Fellows must demonstrate competence in managing the care of patients:
IV.A.1.b).(1).(a)	in a variety of health care settings, including inpatient and various ambulatory settings; the practice of health promotion, disease- prevention, diagnosis, care, and treatment of- patients of each gender from adolescence to old- age, during health and all stages of infectious- disease illness; and,
IV.A.1.b).(1).(b)	using critical thinking and evidence-based tools;
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IV.A.1.b).(1).(c)	using population-based data; and,
IV.A.1.b).(1).(d)	with whom they have limited or no physical contact through the use of telemedicine.
IV.A.1.b).(2)	Fellows must demonstrate competence in the diagnosis and management of the following <u>areas of both possible</u> <u>and proven</u> infectious disease <u>s</u> <del>areas</del> :
IV.A.1.b).(2).(a)	bacterial infections;
IV.A.1.b).(2).(b)	emerging infectious diseases;
IV.A.1.b).(2).(c)	fungal infections;
IV.A.1.b).(2).(d)	health care-associated infections;
IV.A.1.b).(2).(e)	human immunodeficiency virus (HIV)/acquired immune deficiency syndrome (AIDS);
IV.A.1.b).(2).(f)	infections in patients in intensive care units;
IV.A.1.b).(2).(g)	infections in patients with impaired host defenses;
IV.A.1.b).(2).(h)	infections in pregnancy and post-partum states;
IV.A.1.b).(2).(i)	infections in surgical patients;
IV.A.1.b).(2).(j)	infections in travelers;
IV.A.1.b).(2).(k)	mycobacterial infections;
IV.A.1.b).(2).(I)	parasitic infections;
IV.A.1.b).(2).(m)	prosthetic device infections;
IV.A.1.b).(2).(n)	sepsis syndromes;
IV.A.1.b).(2).(o)	sexually transmitted infections; and,
IV.A.1.b).(2).(p)	viral infections.
IV.A.1.b).(3).	Fellows must be able to perform all medical, diagnostic, and surgical procedures considered essential for the area of practice including
IV.A.1.b).(3).(a)	performing diagnostic and therapeutic procedures relevant to their specific career path;
IV.A.1.b).(3).(b)	treating their patient's conditions with practices that are patient-centered, safe, scientifically based, effective, timely and cost-effective; and,

IV.A.1.b).(3).(b).(i)	Fellows must demonstrate competence in the appropriate use and management of antimicrobial agents in a variety of clinical settings, including the hospital, ambulatory practice, non-acute-care units, and the home.
IV.A.1. b).(3).(c)	using diagnostic and/or imaging studies relevant to the care of the patient.
IV.A.1.c)	Medical Knowledge
IV.A.1.c).(1)	Fellows must demonstrate knowledge of established and evolving biomedical clinical, epidemiological, and social- behavioral sciences, as well as the application of this knowledge to patient care. Fellows must demonstrate knowledge of:
IV.A.1.c).(1).(a)	anti-infectives, immunoprophylaxis, and adjunctive therapies, including resistance mechanisms, drug interactions, dosing, monitoring, adverse effects, and relative effectiveness;
IV.A.1.c).(1).(b)	the appropriate procedures for specimen collection relevant to infectious disease, including bronchoscopy, thoracentesis, arthrocentesis, lumbar puncture, and aspiration of abscess cavities;
IV.A.1.c).(1).(c)	the characteristics, use, and complications of antiretroviral agents, mechanisms and clinical significance of viral resistance to antiretroviral agents, and recognition and management of opportunistic infections in patients with HIV/AIDS;
IV.A.1.c).(1).(d)	the development of appropriate antibiotic utilizations and restriction policies;
IV.A.1.c).(1).(e)	diagnostic evaluation, including the indications for diagnostic evaluation of uncommon pathogens, antimicrobial resistance, and therapeutic drug monitoring; and interpretation of diagnostic evaluations for pathogens and clinical syndromes, considering performance characteristics, limitations, and nuances;
IV.A.1.c).(1).(f)	diagnostic reasoning, including the ability to formulate a prioritized differential diagnosis, to include atypical presentations; the ability to modify a diagnosis based on a patient's clinical course; and the ability to recognize sources of diagnostic error;
IV.A.1.c).(1).(g)	the fundamentals of host defense and mechanisms of microorganism pathogenesis;
IV.A.1.c).(1).(h)	infection control and hospital epidemiology

IV.A.1.c).(1).(i)	infection prevention, antimicrobial stewardship, and the epidemiological impact of infectious diseases on population health;
IV.A.1.c).(1).(j)	the mechanisms of action and adverse reactions of antimicrobial agents, antimicrobial and antiviral resistance, and drug-drug interactions between antimicrobial agents and other compounds;
IV.A.1.c).(1).(k)	pathophysiological and foundational science concepts pertaining to infectious diseases and host response; and,
IV.A.1.c).(1).(I)	the principles of prophylaxis and immunoprophylaxis to enhance resistance to infection.
<del>IV.A.1.c).(1).(h)</del>	the appropriate use and management of antimicrobial agents in a variety of clinical settings, including the hospital, ambulatory practice, non- acute care units, and the home;
IV.A.1.c).(2).	Fellows must demonstrate sufficient knowledge specific to the subspecialty of infectious diseases including application of technology appropriate for the clinical context, including evolving technologies.
IV.A.1.d)	Practice-based Learning and Improvement
IV.A.1.d).(1)	Fellows must demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and lifelong learning.
IV.D.1.e)	Interpersonal and Communication Skills
IV.D.1.e).(1)	Fellows must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals.
IV.D.1.f)	Systems-based Practice
IV.A.1.f).(1)	Fellows must demonstrate an awareness of and responsiveness to the larger context and system of health care, including the social determinates of health, as well as the ability to call effectively on other resources in the system to produce optimal care.
IV.B. Re	gularly Scheduled Educational Activities
IV.B.1.	The educational program must include didactic instruction based upon the core knowledge content in the subspecialty area.

IV.B.1.a)	The program must ensure that fellows have an opportunity to review all knowledge content from conferences that they could not attend.
IV.B.2.	Fellows must have a sufficient number of didactic sessions to ensure fellow-fellow and fellow-and-faculty interaction.
IV.C.	Clinical Experiences
IV.C.1.	Assignment of rotations must be structured to minimize the frequency of rotational transitions, and rotations must be of sufficient length to provide a guality educational experience, defined by continuity of patient care, ongoing supervision, longitudinal relationships with faculty members, and meaningful assessment and feedback.
IV.C.2.	Rotations must be structured to allow fellows to function as a part of an effective interprofessional team that works together toward the shared goals of patient safety and quality improvement.
IV.C.3.	Rotations must be structured to minimize conflicting inpatient and outpatient responsibilities.
IV.C.4.	At least 12 months of education must be devoted to clinical experiences.
IV.C.5.	Fellows must participate in the management of <del>outpatient antibiotic</del> <u>anti-infective</u> therapy <u>across a range of clinical settings,</u> including interaction with pharmacy, nursing, and other <u>the</u> home <del>care services</del> .
<del>IV.C.6.</del>	Each fellow must provide patient care consultations or directly oversee students or residents performing consultations.
<del>IV.C.6.a)</del>	Each fellow must have at least 250 new patient consults with infectious disease problems.
<del>IV.C.6.b)</del>	Fellows should have experience with pediatric infectious diseases.
<del>IV.C.7.</del>	Fellows should have direct and frequent interaction with microbiology laboratory personnel.
IV.C.6.	The program must provide educational experiences in team-based care that allow fellows to interact with and learn from other health care professionals.
IV.C.7.	The educational program must provide fellows with elective experiences relevant to their future practice or to further skill/competence development.
IV.C.8.	Fellows must have experience in the role of an infectious disease consultant in the outpatient and inpatient setting.
IV.C.8.	Fellows should participate in training using simulation.
IV.C.9.	Fellows should have a structured continuity ambulatory clinic experience <u>for the duration of the program</u> that exposes them to the breadth and depth of infectious disease.

<del>IV.C.9</del> .	<del>a)</del>	This should include an appropriate distribution of patients of each- gender and a diversity of ages.
IV.C.9.	a)	This experience should average one half-day each week throughout the education program.
IV.C.9	.a).(1)	Each fellow should, on average, be responsible for four to eight patients during each half-day session.
<del>IV.C.9</del>	. <del>a).(1).(a)</del>	Each fellow should, on average, be responsible for no more than eight to 12 patients during each half- day ambulatory session.
IV.C.9.	b)	Fellows should have a structured ambulatory experience in the longitudinal care of patients with HIV infection under the supervision of a physician experienced in the management of HIV infection.
IV.C.9	.b).(1)	Fellows should be assigned to an HIV clinic for a period of at least 12 months.
IV.C.9.	c)	The continuing patient care experience should not be interrupted by more than one month, excluding a fellow's vacation.
IV.D.	Schola	arly Activity
IV.D.1		Fellows' Scholarly Activity
IV.D.1.a)		While in the program all fellows must engage in at least one of the following scholarly activities: participation in grand rounds, posters, workshops, quality improvement presentations, podium presentations, grant leadership, non-peer-reviewed print/electronic resources, articles or publications, book chapters, textbooks,
		<u>webinars, service on professional committees, or serving as a</u> journal reviewer, journal editorial board member, or editor.
IV.D.2		Faculty Scholarly Activity
		See International Foundational Requirements, Section IV.D.2.
IV.	Evaluation	
	See Internation	nal Foundational Requirements, Section V.
V.	The Learning	and Working Environment

See International Foundational Requirements, Section VI.