



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 interface between 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 an ACGME-I-accredited residency in internal medicine.

I.B. Participating Sites

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

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 be available.~~

II. Fellow Appointment

II.D. Eligibility Criteria

II.D.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.

II.E. Number of Fellows

See International Foundational Requirements, Section III.B.

III. 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 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,

101	IV.A.1.b).(1).(b)	<u>using critical thinking and evidence-based tools;</u>
102	IV.A.1.b).(1).(c)	<u>using population-based data; and,</u>
103	IV.A.1.b).(1).(d)	<u>with whom they have limited or no physical contact,</u>
104		<u>through the use of telemedicine.</u>
105		
106	IV.A.1.b).(2)	Fellows must demonstrate competence in the diagnosis
107		and management of the following <u>areas of both possible</u>
108		<u>and proven</u> infectious disease <u>areas</u> :
109	IV.A.1.b).(2).(a)	<u>bacterial infections;</u>
110	IV.A.1.b).(2).(b)	<u>emerging infectious diseases;</u>
111		
112	IV.A.1.b).(2).(c)	fungal infections;
113		
114	IV.A.1.b).(2).(d)	health care-associated infections;
115	IV.A.1.b).(2).(e)	human immunodeficiency virus (HIV)/acquired
116		immune deficiency syndrome (AIDS);
117		
118	IV.A.1.b).(2).(f)	infections in patients in intensive care units;
119		
120	IV.A.1.b).(2).(g)	infections in patients with impaired host
121		defenses;
122	IV.A.1.b).(2).(h)	<u>infections in pregnancy and post-partum states;</u>
123		
124	IV.A.1.b).(2).(i)	infections in surgical patients;
125		
126	IV.A.1.b).(2).(j)	infections in travelers;
127		
128	IV.A.1.b).(2).(k)	mycobacterial infections;
129		
130	IV.A.1.b).(2).(k)	parasitic infections;
131		
132	IV.A.1.b).(2).(l)	prosthetic device infections;
133		
134	IV.A.1.b).(2).(m)	sepsis syndromes;
135		
136	IV.A.1.b).(2).(n)	sexually transmitted infections; and,
137		
138	IV.A.1.b).(2).(o)	viral infections.
139	<u>IV.A.1.b).(3).</u>	<u>Fellows must be able to perform all medical, diagnostic, and</u>
140		<u>surgical procedures considered essential to the subspecialty,</u>
141		<u>including:</u>
142	IV.A.1.b).(3).(a)	<u>performing diagnostic and therapeutic procedures</u>
143		<u>relevant to their individual specific planned career path;</u>
144		
145	IV.A.1.b).(3).(b)	<u>treating their patients' conditions with practices that are</u>

146		<u>patient-centered, safe, scientifically based, effective,</u>
147		<u>timely, and cost-effective; and,</u>
148		
149	IV.A.1.b).(3).(b).(i)	<u>Fellows must demonstrate competence in the</u>
150		<u>appropriate use and management of</u>
151		<u>antimicrobial agents in a variety of clinical</u>
152		<u>settings, to include the hospital, ambulatory</u>
153		<u>practice, non-acute-care units, and the home.</u>
154	IV.A.1. b).(3).(c)	<u>using diagnostic and/or imaging studies relevant to the</u>
155		<u>care of the patient.</u>
156	IV.A.1.c)	Medical Knowledge
157		
158	IV.A.1.c).(1)	Fellows must demonstrate knowledge of established and
159		evolving biomedical clinical, epidemiological, and social-
160		behavioral sciences, as well as the application of this
161		knowledge to patient care. Fellows must demonstrate
162		knowledge of:
163		
164	IV.A.1.c).(1).(a)	<u>anti-infectives, immunoprophylaxis, and adjunctive</u>
165		<u>therapies, including resistance mechanisms, drug</u>
166		<u>interactions, dosing, monitoring, adverse effects,</u>
167		<u>and relative effectiveness;</u>
168		
169	IV.A.1.c).(1).(b)	appropriate procedures for specimen collection
170		relevant to infectious disease, including
171		bronchoscopy, thoracentesis, arthrocentesis,
172		lumbar puncture, and aspiration of abscess cavities;
173		
174	IV.A.1.c).(1).(c)	characteristics, use, and complications of
175		antiretroviral agents, mechanisms and clinical
176		significance of viral resistance to antiretroviral
177		agents, and recognition and management of
178		opportunistic infections in patients with HIV/AIDS;
179		
180	IV.A.1.c).(1).(d)	development of appropriate antibiotic utilizations
181		and restriction policies;
182		
183	IV.A.1.c).(1).(e)	<u>diagnostic evaluation, including the indications for</u>
184		<u>diagnostic evaluation of uncommon pathogens,</u>
185		<u>antimicrobial resistance, and therapeutic drug</u>
186		<u>monitoring; and interpretation of diagnostic</u>
187		<u>evaluations for pathogens and clinical syndromes,</u>
188		<u>considering performance characteristics, limitations,</u>
189		<u>and nuances;</u>
190		
191	IV.A.1.c).(1).(f)	<u>diagnostic reasoning, including the ability to</u>
192		<u>formulate a prioritized differential diagnosis, to</u>
193		<u>include atypical presentations; the ability to modify</u>
194		<u>a diagnosis based on a patient's clinical course;</u>
195		<u>and the ability to recognize sources of diagnostic</u>
196		<u>error;</u>

197			
198	IV.A.1.c).(1).(h)		the appropriate use and management of
199			antimicrobial agents in a variety of clinical settings,
200			including the hospital, ambulatory practice, non-
201			acute care units, and the home;
202			
203	IV.A.1.c).(1).(g)		fundamentals of host defense and mechanisms of
204			microorganism pathogenesis;
205			
206	IV.A.1.c).(1).(h)		infection control and hospital epidemiology;
207	IV.A.1.c).(1).(i)		<u>infection prevention, antimicrobial stewardship, and</u>
208			<u>the epidemiological impact of infectious diseases on</u>
209			<u>population health;</u>
210			
211	IV.A.1.c).(1).(j)		<u>pathophysiological and foundational science</u>
212			<u>concepts pertaining to infectious diseases and host</u>
213			<u>response;</u>
214	IV.A.1.c).(1).(k)		principles of prophylaxis and immunoprophylaxis to
215			enhance resistance to infection; and,
216			
217	IV.A.1.c).(1).(l)		the mechanisms of action and adverse reactions of
218			antimicrobial agents, antimicrobial and antiviral
219			resistance, and drug-drug interactions between
220			antimicrobial agents and other compounds.
221			
222	IV.A.1.c).(2).		<u>Fellows must demonstrate sufficient knowledge specific to</u>
223			<u>the subspecialty of infectious diseases, including application</u>
224			<u>of technology appropriate for the clinical context, to include</u>
225			<u>evolving technologies.</u>
226			
227	IV.A.1.d)	Practice-Based Learning and Improvement	
228			
229	IV.A.1.d).(1)		Fellows must demonstrate the ability to investigate and
230			evaluate their care of patients, to appraise and assimilate
231			scientific evidence, and to continuously improve patient
232			care based on constant self-evaluation and lifelong
233			learning.
234	IV.D.1.e)	Interpersonal and Communication Skills	
235	IV.D.1.e).(1)		Fellows must demonstrate interpersonal and
236			communication skills that result in the effective exchange
237			of information and collaboration with patients, patients'
238			families, and health professionals.
239			
240	IV.D.1.f)	Systems-Based Practice	
241			
242	IV.A.1.f).(1)		Fellows must demonstrate an awareness of and
243			responsiveness to the larger context and system of health
244			care, including the social determinates of health, as well as

245 the ability to call effectively on other resources in the
246 system to produce optimal care.

247
248 **IV.B. Regularly Scheduled Educational Activities**

249 IV.B.1. The educational program must include didactic instruction based upon the
250 core knowledge content in infectious diseases.

251 IV.B.1.a) Fellows must have a sufficient number of didactic sessions to
252 ensure fellow-fellow and fellow-and-faculty member interaction.

253 IV.B.2. The program must ensure that fellows have an opportunity to review all
254 knowledge content from conferences that they could not attend.

255 IV.B.3. Fellows must receive instruction in practice management relevant to
256 infectious disease.

257
258 **IV.C. Clinical Experiences**

259 IV.C.1. Assignment of rotations must be structured to minimize the frequency of
260 rotational transitions, and rotations must be of sufficient length to provide a
261 quality educational experience, defined by continuity of patient care, ongoing
262 supervision, longitudinal relationships with faculty members, and meaningful
263 assessment and feedback.

264 IV.C.2. Rotations must be structured to allow fellows to function as a part of an
265 effective interprofessional team that works together toward the shared goals
266 of patient safety and quality improvement.

267 IV.C.3. Rotations must be structured to minimize conflicting inpatient and outpatient
268 responsibilities.

269
270 IV.C.4. At least 12 months of education must be devoted to clinical experiences.

271
272 IV.C.5. Fellows must participate in the management of outpatient antibiotic
273 anti-infective therapy across a range of clinical settings, including
274 interaction with pharmacy, nursing, and other the homecare services.

275 ~~IV.C.6. Each fellow must provide patient care consultations or directly oversee~~
276 ~~students or residents performing consultations.~~

277
278 ~~IV.C.6.a) Each fellow must have at least 250 new patient consults with~~
279 ~~infectious disease problems.~~

280
281 ~~IV.C.6.b) Fellows should have experience with pediatric infectious diseases.~~

282
283 ~~IV.C.7. Fellows should have direct and frequent interaction with microbiology~~
284 ~~laboratory personnel.~~

285 IV.C.6. The program must provide educational experiences in team-based care
286 that allow fellows to interact with and learn from other health care
287 professionals.

288	IV.C.7.	<u>The educational program must provide fellows with elective experiences relevant to their future practice or to further skill/competence development.</u>
289		
290		
291	IV.C.8.	<u>Fellows must participate in training using simulation.</u>
292	IV.C.9.	Fellows should have a structured continuity ambulatory clinic experience
293		<u>for the duration of the program</u> that exposes them to the breadth and
294		depth of infectious disease.
295	IV.C.9.a)	This should include an appropriate distribution of patients of each
296		gender and a diversity of ages.
297		
298	IV.C.9.a)	This experience should average one half-day each week
299		throughout the education program.
300		
301	IV.C.9.a).(1)	Each fellow should, on average, be responsible for four to
302		eight patients during each half-day session.
303		
304	IV.C.9.a).(1).(a)	Each fellow should, on average, be responsible for
305		no more than eight to 12 patients during each half-
306		day ambulatory session.
307	IV.C.9.b)	Fellows should have a structured ambulatory experience in the
308		longitudinal care of patients with HIV infection under the
309		supervision of a physician experienced in the management of HIV
310		infection.
311		
312	IV.C.9.b).(1)	Fellows should be assigned to an HIV clinic for a period of
313		at least 12 months.
314		
315	IV.C.9.c)	The continuing patient care experience should not be interrupted
316		by more than one month, excluding a fellow's vacation.
317		
318	IV.D.	Scholarly Activity
319	IV.D.1.	Fellows' Scholarly Activity
320	IV.D.1.a)	<u>While in the program, each fellow must complete at least one of the</u>
321		<u>following scholarly activities: participation in grand rounds; poster</u>
322		<u>presentations; workshops; quality improvement presentations;</u>
323		<u>podium presentations; grant leadership; non-peer-reviewed</u>
324		<u>print/electronic resources, articles or publications; book chapters;</u>
325		<u>textbooks; webinars; service on professional committees; or service</u>
326		<u>as a journal reviewer, journal editorial board member, or editor.</u>
327	IV.D.2.	Faculty Scholarly Activity
328		See International Foundational Requirements, Section IV.D.2.
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330	IV.	Evaluation
331		
332		See International Foundational Requirements, Section V.
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334	V.	The Learning and Working Environment
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336		See International Foundational Requirements, Section VI.