



**ACGME International**

**Advanced Specialty Program Requirements for  
Graduate Medical Education in  
Endocrinology, Diabetes, and Metabolism  
(Internal Medicine)**

Reformatted: 1 April 2022  
Revised: 12 December 2015, Effective: 1 July 2016  
Initial Approval: 2 October 2012

**ACGME International Specialty Program Requirements for  
Graduate Medical Education in Endocrinology, Diabetes, and Metabolism  
(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 medical specialty of endocrinology, diabetes, and metabolism focuses on the endocrine system, its diseases, and hormones; the integration of developmental events, such as proliferation, growth, and differentiation, including histogenesis and organogenesis; and the coordination of metabolism, respiration, excretion, movement, reproduction, and sensory perception, which depend on chemical cues and substances synthesized and secreted by specialized cells.~~ Endocrinology, diabetes, and metabolism is the subspecialty of internal medicine that focuses on the diagnosis and care of disorders of the endocrine (glandular) system and associated metabolic dysfunction.

**Int. II. Duration of Education**

Int. II.A. The educational program in endocrinology, diabetes, and metabolism must be 24 or 36 months in length.

**I. Institution**

**I.A. Sponsoring Institution**

I.A.1. A fellowship in endocrinology, diabetes and metabolism must function as an integral part of ACGME-I-accredited residency in internal medicine.

**I.B. Participating Sites**

See International Foundational Requirements, Section I.B

**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.B..

**II.C. Other Program Personnel**

II.C.1. There must be a close working relationship with dietary and/or nutrition services, as well as with specialists in general surgery, nephrology, neurological surgery, neurology, obstetrics and gynecology, ophthalmology, pediatrics, podiatry, and urology.

## **II.D. Resources**

II.D.1. Laboratory and imaging services must be available, including:

II.D.1.a) a complete biochemistry laboratory and facilities for hormone immunoassays;

II.D.1.b) access to karyotyping and immunohistologic studies; and,

II.D.1.c) nuclear, ultrasound, and radiologic facilities, to include bone density.

## **III. Fellow Appointment**

### **III.A. Eligibility Criteria**

III.A.1. 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 ambulatory settings; the practice of health-promotion, disease prevention, diagnosis, care, and treatment programs of patients of each gender, from

100		<del>adolescence to old age, during health and all stages</del>
101		<del>of illness;</del>
102	IV.A.1.b).(1).(b)	<u>using critical thinking and evidence-based tools;</u>
103	IV.A.1.b).(1).(c)	<u>using population-based data; and,</u>
104	IV.A.1.b).(1).(d)	<u>with whom they have limited or no physical contact,</u>
105		<u>through the use of telemedicine.</u>
106		
107	IV.A.1.b).(2)	Fellows must demonstrate competence in the evaluation and
108		management of hormonal problems, including diseases,
109		infections, neoplasms, and other causes of dysfunction of the
110		following endocrine organs:
111		
112	IV.A.1.b).(2).(a)	adrenal cortex and medulla;
113		
114	IV.A.1.b).(2).(b)	hypothalamus and pituitary;
115		
116	IV.A.1.b).(2).(c)	ovaries and testes;
117		
118	IV.A.1.b).(2).(d)	pancreatic islets;
119		
120	IV.A.1.b).(2).(e)	parathyroid; and,
121		
122	IV.A.1.b).(2).(f)	thyroid.
123		
124	IV.A.1.b).(3).	Fellows must demonstrate competence in the care of patients
125		with Type 1 and Type 2 diabetes, <u>as well as other types of</u>
126		<u>diabetes</u> , including:
127		
128	IV.A.1.b).(3).(a)	<u>atypical diabetes;</u>
129	IV.A.1.b).(3).(b)	<u>cystic fibrosis-related diabetes;</u>
130	IV.A.1.b).(3).(c)	diabetes detection and management during pregnancy;
131		
132	IV.A.1.b).(3).(d)	evaluation and management of acute, life-threatening
133		complications of hyper- and hypoglycemia;
134		
135	IV.A.1.b).(3).(e)	evaluation and management of intensive insulin
136		therapy in critical care and surgical patients;
137		
138	IV.A.1.b).(3).(f)	intensive management of glycemic control in the
139		ambulatory setting;
140	IV.A.1.b).(3).(g)	<u>latent autoimmune diabetes in adults;</u>
141		
142	IV.A.1.b).(3).(h)	long-term goals, counseling, education, and
143		monitoring;
144	IV.A.1.b).(3).(i)	<u>monogenic diabetes;</u>

145		
146	IV.A.1.b).(3).(j)	multidisciplinary diabetes education and treatment
147		programs;
148	IV.A.1.b).(3).(k)	prevention and surveillance of microvascular and
149		macrovascular complications; and,
150	IV.A.1.b).(3).(l)	<u>transplant-related diabetes.</u>
151		
152	IV.A.1.b).(4)	Fellows must demonstrate competence in the care of
153		patients with:
154		
155	IV.A.1.b).(4).(a)	calcium, phosphorus, and magnesium imbalances;
156		
157	IV.A.1.b).(4).(b)	disorders of bone and mineral metabolism, with
158		particular emphasis on the diagnosis and management
159		of osteoporosis;
160		
161	IV.A.1.b).(4).(c)	disorders of fluid, electrolyte, and acid-base
162		metabolism;
163		
164	IV.A.1.b).(4).(d)	gonadal disorders; and,
165		
166	IV.A.1.b).(4).(e)	nutritional disorders of obesity, anorexia nervosa, and
167		bulimia.
168		
169	IV.A.1.b).(5)	<u>Fellows must be able to perform all medical, diagnostic, and</u>
170		<u>surgical procedures considered essential to the subspecialty,</u>
171		<u>including:</u>
172	IV.A.1.b).(5).(a)	<u>performing diagnostic and therapeutic procedures</u>
173		<u>relevant to their individual specific planned career path,</u>
174		<u>to include:</u>
175	IV.A.1.b).(5).(a).(i)	continuous glucose monitoring;
176	IV.A.1.b).(5).(a).(ii)	<u>management of insulin pumps; and,</u>
177	IV.A.1.b).(5).(a).(iii)	<u>thyroid biopsy.</u>
178	IV.A.1.b).(5).(b)	<u>treating their patient's conditions with practices that are</u>
179		<u>patient-centered, safe, scientifically based, effective,</u>
180		<u>timely, and cost-effective, to include gender dysphoria</u>
181		<u>or hormonal treatments for transgender patients:</u>
182	IV.A.1. b).(5).(c)	<u>using diagnostic and/or imaging studies relevant to the</u>
183		<u>care of the patient, to including:</u>
184		
185	IV.A.1.b).(5).(c).(i)	computed tomography(CT);
186	IV.A.1.b).(5).(c).(ii)	diagnosis and management of ectopic
187		hormone production;

188		
189	IV.A.1.b).(5).(c).(iii)	diagnosis and management of lipid and
190		lipoprotein disorders;
191		
192	IV.A.1.b).(5).(c).(iv)	genetic screening and counseling for
193		endocrine and metabolic disorders;
194		
195	IV.A.1.b).(5).(c).(v)	interpretation of hormone assays;
196		
197	IV.A.1.b).(5).(c).(vi)	interpretation of laboratory studies, including
198		the effects of non-endocrine disorders on
199		these studies;
200		
201	IV.A.1.b).(5).(c).(vii)	interpretation of skeletal dual photon
202		absorptiometry;
203		
204	IV.A.1.b).(5).(c).(viii)	<del>performance and</del> interpretation of stimulation
205		and suppression tests;
206		
207	IV.A.1.b).(5).(c).(ix)	magnetic resonance imaging(MRI);
208		
209	IV.A.1.b).(5).(c).(x)	quantification of bone density;
210		
211	IV.A.1.b).(5).(c).(xi)	radionuclide localization of endocrine tissue;
212	IV.A.1.b).(5).(c).(xii)	thyroid fine needle biopsy; and,
213		
214	IV.A.1.b).(5).(c).(xiii)	ultrasonography of the soft tissues of the neck.
215		
216	IV.A.1.c)	Medical Knowledge
217		
218	IV.A.1.c).(1)	Fellows must demonstrate knowledge of established and
219		evolving biomedical clinical, epidemiological, and social-
220		behavioral sciences, as well as the application of this
221		knowledge to patient care. Fellows must demonstrate
222		knowledge of:
223		
224	IV.A.1.c).(1).(a)	the scientific method of problem solving, and
225		evidence-based decision-making;
226		
227	IV.A.1.c).(1).(b)	indications, contraindications, and techniques for,
228		and limitations, complications, and interpretation of
229		results of those diagnostic and therapeutic
230		procedures integral to the discipline, including the
231		appropriate indications for and use of screening
232		tests and procedures;
233		
234	IV.A.1.c).(1).(c)	basic laboratory techniques, including quality control,
235		quality assurance, and proficiency standards;
236		
237	IV.A.1.c).(1).(d)	biochemistry and physiology, including cell and
238		molecular biology, as they relate to endocrinology,

239		diabetes, and metabolism;
240		
241	IV.A.1.c).(1).(e)	developmental endocrinology, including growth and
242		endocrinology, diabetes, growth and development,
243		sexual differentiation, and pubertal maturation;
244		
245	IV.A.1.c).(1).(f)	endocrine adaptations and maladaptation to systemic
246		diseases;
247		
248	IV.A.1.c).(1).(g)	endocrine aspects of psychiatric diseases;
249		
250	IV.A.1.c).(1).(h)	endocrine physiology and pathophysiology in
251		systemic diseases and principles of hormone action;
252		
253	IV.A.1.c).(1).(i)	genetics as it relates to endocrine diseases;
254		
255	IV.A.1.c).(1).(j)	parenteral nutrition support;
256	IV.A.1.c).(1).(k)	pathogenesis and epidemiology of diabetes mellitus;
257		
258	IV.A.1.c).(1).(l)	signal transduction pathways and biology of hormone
259		receptors; and,
260		
261	IV.A.1.c).(1).(m)	whole organ and islet cell pancreatic transplantation.
262		
263	IV.A.1.c).(2)	<u>Fellows must demonstrate sufficient knowledge specific to</u>
264		<u>endocrinology, diabetes and metabolism, including</u>
265		<u>application of technology appropriate for the clinical context,</u>
266		<u>to include evolving technologies.</u>
267	IV.A.1.d)	Practice-Based Learning and Improvement
268		
269	IV.A.1.d).(1)	Fellows must demonstrate the ability to investigate and
270		evaluate their care of patients, to appraise and assimilate
271		scientific evidence, and to continuously improve patient care
272		based on constant self-evaluation and lifelong learning.
273	IV.A.1.e)	Interpersonal and Communication Skills
274	IV.A.1.e).(1)	Fellows must demonstrate interpersonal and
275		communication skills that result in the effective exchange of
276		information and collaboration with patients, patients'
277		families, and health professionals. Fellows must:
278		
279	IV.A.1.e).(1).(a)	demonstrate competence in educating patients about
280		the rationale and technique for, and complications
281		of, thyroid biopsy.
282		
283	IV.A.1.f)	Systems-Based Practice
284		
285	IV.A.1.f).(1)	Fellows must demonstrate an awareness of and
286		responsiveness to the larger context and system of health

287 care, including the social determinates of health, as well as  
288 the ability to call effectively on other resources in the system  
289 to produce optimal care.  
290

291 **IV.B. Regularly Scheduled Educational Activities**

292 IV.B.1. The educational program must include didactic instruction based upon the  
293 core knowledge content in endocrinology, diabetes, and metabolism.

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

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

298 IV.B.3. Fellows must receive instruction in practice management relevant to  
299 endocrinology, diabetes, and metabolism.  
300

301 **IV.C. Clinical Experiences**

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

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

310 IV.C.3. Rotations must be structured to minimize conflicting inpatient and outpatient  
311 responsibilities.  
312

313 IV.C.4. At least 12 months must be devoted to clinical experiences.  
314

315 IV.C.5. Fellows must have experience in the role of an endocrinology, diabetes and  
316 metabolism consultant in both the inpatient and ambulatory settings.

317 IV.C.6. The program must provide educational experiences that allow fellows to  
318 interact with and learn from other health care professionals.

319 IV.C.7. The educational program must provide fellows with elective experiences  
320 relevant to their future practice or to further skill/competence development.  
321

322 IV.C.8. Fellows must participate in training using simulation.

323 IV.C.9. Fellows should have a structured continuity ambulatory clinic experience for  
324 the duration of the program that exposes them to the breadth and depth of  
325 endocrinology, diabetes, and metabolism.  
326

327 ~~IV.C.9.a) This should include an appropriate distribution of patients of each~~  
328 ~~gender and a diversity of ages.~~



IV.C.9.a) This experience should average two half-days each week throughout the educational program.

~~IV.C.9.a).(1) Each fellow should, on average, be responsible for four to eight patients during each half day session.~~

~~IV.C.9.a).(1).(a) 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) The continuing patient care experience should not be interrupted by more than one month, excluding a fellow's vacation.

#### **IV.D. Scholarly Activity**

##### **IV.D.1. Fellows' Scholarly Activity**

IV.D.1.a) While in the program, each fellow must complete at least one of the following scholarly activities: participation in grand rounds; poster presentations; workshops; quality improvement presentations; podium presentations; grant leadership; non-peer-reviewed print/electronic resources; articles or publications; book chapters; textbooks; webinars; service on professional committees; or service as a journal reviewer, journal editorial board member, or editor.

##### **IV.D.2. Faculty Scholarly Activity**

See International Foundational Requirements, Section IV.D.2.

#### **V. Evaluation**

See International Foundational Requirements, Section V.

#### **VI. The Learning and Working Environment**

##### **VI.A. Principles**

See International Foundational Requirements, Section VI.A.

##### **VI.B. Patient Safety**

See International Foundational Requirements, Section VI.B.

##### **VI.C. Quality Improvement**

See International Foundational Requirements, Section VI.C.

##### **VI.D. Supervision and Accountability**

VI.D.1. Direct supervision of procedures performed by each fellow must occur until competence has been acquired and documented by the program director.

376		
377	<b>VI.E.</b>	<b>Professionalism</b>
378		
379		See International Foundational Requirements, Section VI.E.
380	<b>VI.F.</b>	<b>Well-Being</b>
381		
382		See International Foundational Requirements, Section VI.F.
383		
384	<b>VI.G.</b>	<b>Fatigue</b>
385		
386		See International Foundational Requirements, Section VI.G.
387		
388	<b>VI.H.</b>	<b>Transitions of Care</b>
389		
390		See International Foundational Requirements, Section VI.H.
391		
392	<b>VI.I.</b>	<b>Clinical Experience and Education</b>
393		
394		See International Foundational Requirements, Section VI.I.
395		
396	<b>VI.J.</b>	<b>On-Call Activities</b>
397		
398		See International Foundational Requirements, Section VI.J.