ACGME International

Advanced Specialty Program Requirements for Graduate Medical Education in General Surgery

Reformatted: 1 April 2022
Revised: 12 December 2015, Effective: 1 July 2016
Initial Approval: 13 September 2010
Proposed revision: posted for review and comment 2 May 2025
Proposed effective date: 1 July 2026

ACGME International Specialty Program Requirements for Graduate Medical Education in General Surgery

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 practice of surgery encompasses the provision of comprehensive care to the patient with surgical disorders of the abdomen and its contents; the alimentary tract; skin; soft tissues; breast; and endocrine organs; and trauma. The practice of surgery also encompasses surgical evaluation and management of patients with oncologic, vascular, pediatric, and intensive care disorders; and surgical stabilization and management of severe conditions of the cardiothoracic, urologic, gynecologic, neurologic, and otolaryngologic systems and indications for specialty consultations. Surgeons ~~possess~~ exercise surgical judgement, which includes knowledge and technical skills, and the ability to integrate the acquired knowledge into the clinical situation to provide comprehensive care. Comprehensive surgical care includes the evaluation, diagnosis, operative, and non-operative treatment of surgical disorders and the appropriate disposition and follow-up of patients.

Int. II. Duration of Education

Int. II.A. The educational program in general surgery must be 60 or 72 months in length.

I. Institution

I.A. Sponsoring Institution

See International Foundational Requirements, Section I.A.

I.B. Participating Sites

See International Foundational Requirements, Section I.B.

II. Program Personnel and Resources

II.A. Program Director

II.A.1. For programs with more than 20 residents, there should be at least one associate program director with an aggregate minimum of 10 percent full-time equivalent (FTE) support.

II.B. Faculty

See International Foundational Requirements, Section II.B.

II.C. Other Program Personnel

II.C.1. Staff members must be available from a variety of services that provide a critical role in the care of patients with surgical conditions, such as radiology and pathology.

II.D. Resources

II.D.1. An ACGME-I ~~-~~accredited surgery program must be conducted in an institution that can document a sufficient volume and variety ~~breadth~~ of patient care.

II.D.1.a) At a minimum, the institution must routinely care for patients with a broad spectrum of surgical diseases and conditions.

II.D.2. The institutional volume and variety of operative experience must be adequate to ensure a sufficient number and distribution of complex cases (as determined by the Review Committee-International) for each resident in the program.

II.D.3. The Sponsoring Institution and program must jointly ensure the availability of adequate resources for resident education, including:

II.D.3.a) clinical experiences in a resource-limited environment;

II.D.3.b) online radiographic and laboratory reporting systems at the primary clinical site; and,

II.D.3.c) opportunities for simulation and skill~~s~~ -building experiences. ~~laboratories~~

III. Resident Appointment

III.A. Eligibility Criteria

See International Foundational Requirements, Section III.A.

III.B. Number of Residents

III.B.1. The program's educational resources must be adequate to support the number of residents appointed to the program.

III.B.2. The program director must not appoint more residents than approved by the Review Committee-International.

III.B.3. Residency positions must be allocated to either ~~one of two groups~~: categorical or preliminary positions.

III.B.3.a) Residents who have satisfactorily completed a preliminary ~~training~~ year must not be appointed to additional years as preliminary residents.

III.B.3.b) The number of preliminary positions must not exceed the total number of approved post-graduate year one (PGY-1) categorical positions.

III.B.3.c) Documentation of continuation in graduate medical education for preliminary residents must be provided at the time of each accreditation site visit.

III.B.3.d) The program director must counsel and assist preliminary residents in obtaining future positions.

III.C. Resident Transfers

III.C.1. Residents must spend the final two years of their educational program ~~education must be spent~~ in the same residency ~~program~~.

III.D. Appointment of Fellows and Other Learners

See International Foundational Requirements, Section III.D.

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) Residents must demonstrate a commitment to professionalism and an adherence to ethical principles. Residents must demonstrate:

IV.A.1.a).(1).(a) compassion, integrity, and respect for others;

IV.A.1.a).(1).(b) responsiveness to patient needs that supersedes self-interest;

IV.A.1.a).(1).(c) respect for patient privacy and autonomy;

IV.A.1.a).(1).(d) accountability to patients, society, and the profession;

IV.A.1.a).(1).(e) sensitivity and responsiveness to a diverse patient population, including to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation;

IV.A.1.a).(1).(f) high standards of ethical behavior; and,

IV.A.1.a).(1).(g) a commitment to continuous patient care.

IV.A.1.b) Patient Care and Procedural Skills

IV.A.1.b).(1) Residents must provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. Residents must demonstrate competence in:

IV.A.1.b).(1).(a) ~~manual dexterity appropriate for their level;~~continuity of comprehensive patient care;

IV.A.1.b).(1).(b) evaluation, diagnosis, and operative and non-operative treatment across the five phases of care (pre-habilitation, pre-operative, operative, immediate recovery, and long-term recovery/follow-up) across the spectrum of ages for elective, urgent, and emergent conditions;

~~IV.A.1.b).(1).(b)~~ ~~developing and executing patient care plans appropriate for their level, including management of pain;~~

IV.A.1.b).(1).(c) diagnosing and managing patients with severe and complex illnesses and with major injuries, including providing appropriate consultations and requesting referrals as needed;

IV.A.1.b).(1).(d) essential content areas, ~~of~~ including: the abdomen and its contents; the alimentary tract; skin, soft tissues, and breast; endocrine surgery; head and neck surgery; pediatric surgery; surgical critical care; surgical oncology; trauma and non-operative trauma; and the vascular system; and,

IV.A.1.b).(1).(e) managing general surgical conditions arising in transplant patients.

IV.A.1.b).(2) Residents must demonstrate competence in emerging surgical and minimally invasive technologies as relevant to their setting.

IV.A.1.c) Medical Knowledge

IV.A.1.c).(1) Residents 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. Residents must

demonstrate knowledge <u>of applied scientific principles for general surgery practice, including</u>:

IV.A.1.c).(1).(a) applied surgical anatomy and surgical pathology;

IV.A.1.c).(1).(b) burn physiology and initial burn management;

IV.A.1.c).(1).(c) critical evaluation of pertinent scientific information;

IV.A.1.c).(1).(d) hematologic disorders;

IV.A.1.c).(1).(e) homeostasis, shock, and circulatory physiology;

IV.A.1.c).(1).(f) immunobiology and transplantation;

IV.A.1.c).(1).(g) metabolic response to injury;

IV.A.1.c).(1).(h) oncology;

IV.A.1.c).(1).(i) surgical endocrinology;

IV.A.1.c).(1).(j) surgical nutrition, and fluid and electrolyte balance;

IV.A.1.c).(1).(k) the elements of wound healing;

IV.A.1.c).(1).(l) the fundamentals of basic science as applied to clinical surgery; and,

IV.A.1.c).(1).(m) <u>surgical technology.</u>

IV.A.1.c).(2) <u>Residents must demonstrate appropriate knowledge of principles of ethics, palliative care, communication, and health care disparities as these apply to surgical care.</u>

IV.A.1.d) Practice-Based Learning and Improvement

IV.A.1.d).(1) Residents 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. Residents are expected to develop skills and habits to be able to meet the following goals:

IV.A.1.d).(1).(a) identify and perform appropriate learning activities;

IV.A.1.d).(1).(b) identify strengths, deficiencies, and limits in one's knowledge and expertise;

IV.A.1.d).(1).(c) incorporate formative evaluation feedback into daily practice;

IV.A.1.d).(1).(d) locate, appraise, and assimilate evidence from

scientific studies related to their patients' health problems;

IV.A.1.d).(1).(e) participate in the education of patients, patients' families, students, other residents, and other health professionals;

IV.A.1.d).(1).(f) regularly participate in quality improvement activities, and morbidity and mortality conferences that evaluate and analyze patient care outcomes;

IV.A.1.d).(1).(g) set learning and improvement goals, and regularly assess their strengths, weaknesses, and progress in achieving those learning goals;

IV.A.1.d).(1).(h) systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement;

IV.A.1.d).(1).(i) use information technology to optimize learning; and,

IV.A.1.d).(1).(j) ~~utilize~~use an evidence-based approach to patient care.

IV.A.1.e) Interpersonal and Communication Skills

IV.A.1.e).(1) Residents must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, ~~their~~ patients' families, and health professionals. Residents must demonstrate competence in:

IV.A.1.e).(1).(a) communicating effectively with patients, patients' families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds;

IV.A.1.e).(1).(b) communicating effectively with physicians, other health professionals, and health-related agencies;

IV.A.1.e).(1).(c) working effectively as a member or leader of a health care team or other professional group;

IV.A.1.e).(1).(d) acting in a consultative role to other physicians and health professionals;

IV.A.1.e).(1).(e) maintaining comprehensive, timely, and legible medical records, if applicable;

IV.A.1.e).(1).(f) counselling and educating patients and ~~their~~ patients' families; and,

IV.A.1.e).(1).(g) effectively documenting practice activities.

IV.A.1.f) Systems-Based Practice

IV.A.1.f).(1) Residents must demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care. Residents must:

IV.A.1.f).(1).(a) work effectively in various health care delivery settings and systems relevant to their clinical specialty;

IV.A.1.f).(1).(b) coordinate patient care within the health care system relevant to their clinical specialty;

IV.A.1.f).(1).(c) incorporate considerations of cost awareness and risk-benefit analysis in patient and/or population-based care as appropriate;

IV.A.1.f).(1).(d) advocate for quality patient care and optimal patient care systems;

IV.A.1.f).(1).(e) work in interprofessional teams to enhance patient safety and improve patient care quality;

IV.A.1.f).(1).(f) participate in identifying system errors and implementing potential systems solutions;

IV.A.1.f).(1).(g) practice high-quality, cost-effective patient care;

IV.A.1.f).(1).(h) demonstrate knowledge of risk-benefit analysis; and,

IV.A.1.f).(1).(i) demonstrate an understanding of the roles of different specialists and other health care professionals in overall patient management.

IV.B. Regularly Scheduled Educational Activities

IV.B.1. The core curriculum must include a didactic program based on the core knowledge content of general surgery.

IV.B.2. The educational program should include the fundamentals of basic science as applied to clinical surgery, including:

IV.B.2.a) applied surgical anatomy and surgical pathology;

IV.B.2.b) fluid and electrolyte balance;

IV.B.2.c) hematologic disorders;

IV.B.2.d) homeostasis, shock, and circulatory physiology;

IV.B.2.e) immunobiology and transplantation;

IV.B.2.f) oncology;

IV.B.2.g) surgical endocrinology;

IV.B.2.h) surgical nutrition;

IV.B.2.i) the elements of wound healing; and,

IV.B.2.j) the metabolic response to injury, to include to burns.

IV.B.3. The following types of conferences must exist within a program:

IV.B.3.a) a course or a structured series of lectures that ensures education in the basic and clinical sciences fundamental to surgery, including technological advances that relate to surgery and the care of patients with surgical diseases, as well as education in critical thinking, design of experiments, and evaluation of data; and,

IV.B.3.b) regular organized clinical teaching, such as grand rounds, ward rounds, and clinical conferences.

IV.B.4. ~~a weekly~~ Morbidity and mortality or quality improvement conferences must be scheduled at least monthly.

IV.B.5. The program must document a clinical curriculum that is sequential, comprehensive, and organized from basic to complex.

IV.B.6. Conferences should be scheduled to permit resident attendance on a regular basis, and resident time must be protected from interruption by routine clinical duties.

IV.B.7. Documentation of attendance by 75 percent of residents at the core conferences must be achieved.

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 quality educational experience, defined by continuity of patient care, ongoing supervision, longitudinal relationships with faculty members, and meaningful assessment and feedback.

IV.C.1.a) Core rotations in the essential content areas of surgery must be at least four contiguous weeks in duration.

IV.C.2. The clinical program should be organized as follows:

IV.C.2.a) At least 54 months must be spent on clinical assignments in surgery, with documented experience in emergency care and surgical critical care.

IV.C.1.a).(1) At least 42 of the 54 months must be spent on clinical assignments in the essential content areas of surgery, including:

IV.C.1.a).(1).(a) the abdomen and its contents;

IV.C.1.a).(1).(b) the alimentary tract;

IV.C.1.a).(1).(c) endocrine surgery;

IV.C.1.a).(1).(d) head and neck surgery;

IV.C.1.a).(1).(e) pediatric surgery;

IV.C.1.a).(1).(f) skin, soft tissues, and breast;

IV.C.1.a).(1).(g) surgical critical care;

IV.C.1.a).(1).(h) surgical oncology;

IV.C.1.a).(1).(i) the vascular system; and,

IV.C.1.a).(1).(j) trauma and non-operative trauma (burn experience that includes patient management may be counted toward non-operative trauma).

IV.C.2.b) Formal clinical rotations in burn care, cardiac surgery, gynecology, neurological surgery, orthopaedic surgery, transplant care, and urology are not ~~required~~ mandatory.

IV.C.1.b).(1) Clearly documented goals and objectives must be provided to residents and faculty members if these components are included as rotations.

IV.C.2.c) There must be either a transplant rotation or a specifically designed course that includes ~~patient management and covers~~ knowledge of the principles of immunology, immunosuppression, and the management of general surgical conditions arising in transplant patients.

IV.C.1.c).(1) Clearly documented goals and objectives must be provided to residents and faculty members for this experience.

IV.C.2.d) No more than six months total should be allocated to research or to non-surgical disciplines, such as anesthesiology, internal medicine, pediatrics, or surgical pathology (gastroenterology is exempt from this limit if the rotation provides endoscopic

experiences).

IV.C.2.e) No more than 12 months should be devoted to a surgical discipline other than the principal components of surgery.

IV.C.3. Prior to graduation, each resident must perform a minimum number of specific cases as defined by the Review Committee-International.

IV.C.3.a) Performance of this minimum number of cases must not be interpreted as an equivalent to achievement of competence ~~achievement.~~

IV.C.4. Each resident must ~~have~~ complete a minimum of 750 major cases.

IV.C.4.a) A minimum of 150 major cases must occur in a resident's chief year.

IV.C.5. Residents must have experience with a variety of endoscopic procedures, including esophogastro-duodenoscopy and colonoscopy, ~~and bronchoscopy,~~ as well as ~~in~~advanced laparoscopy.

IV.C.6. Residents must have experience with evolving diagnostic and therapeutic methods.

IV.C.7. The program must provide residents with an outpatient experience to evaluate patients both pre-operatively, including initial evaluation, and post-operatively.

IV.C.7.a) At least 75 percent of assignments in the essential content areas must include an outpatient experience of one half-day per week. (An outpatient experience is not required for assignments in the secondary components of surgery or surgical critical care).

IV.C.8. Operative experience

IV.C.8.a) Prior to graduation, residents must document completion of a sufficient breadth of complex procedures.

IV.C.8.b) All residents (categorical, designated preliminary, and non-designated preliminary residents in ACGME-I-accredited positions) must enter their operative experience, concurrently during each year of the ~~residency e~~educational program, in the ACGME-I Case Log System.

IV.C.8.c) A chief resident and a fellow (whether or not the fellow is in an ACGME-I-accredited ~~position~~ program) must not have primary responsibility for the same patient, except that general surgeons and surgical critical care fellows may co-manage the non-operative care of the same patient.

IV.C.8.d) The role of surgeon must include significant resident involvement in the following aspects of management: determination or

confirmation of the diagnosis; provision of pre-operative care; selection and accomplishment of the appropriate operative procedure; and direction of post-operative care.

IV.C.9. Chief residents' clinical assignments should be scheduled in the final year of the program.

IV.C.9.a) These assignments must be scheduled at the primary clinical site, or at a participating site that meets all the following criteria:

IV.C.9.a).(1) The program director must appoint the members of the teaching staff and the local program director at the participating site.

IV.C.9.a).(2) The members of the faculty at the participating site must demonstrate a commitment to scholarly pursuits.

IV.C.9.a).(3) Clinical experiences in the essential content areas should be able to be obtained at the participating site.

IV.C.9.a).(4) The participating site should be in geographic proximity to allow all residents to attend core conferences at the primary clinical site.

IV.C.9.a).(4).(a) If the participating site is geographically remote and joint conferences cannot be held, an equivalent educational program of lectures and conferences must occur at the participating site and must be fully documented.

IV.C.9.a).(4).(b) Morbidity and mortality reviews must occur at the participating site or at a combined central location.

IV.C.9.a).(4).(c) The participating site cannot be the primary site of another accredited general surgery residency.

IV.C.9.a).(5) These assignments must include educational experiences in the essential content areas of general surgery.

IV.C.9.a).(6) No more than four months of the chief year may be devoted exclusively to any one essential area.

IV.C.9.a).(6).(a) Non-cardiac thoracic surgery and transplantation rotations may be considered acceptable chief resident assignments, as long as the chief resident performs an appropriate number of complex cases with documented participation in pre- and post-operative care.

IV.C.9.a).(7) The chief resident may act as a teaching assistant (TA) to a more junior resident with appropriate faculty member supervision when justified by the experience.

IV.C.9.a).(7).(a)	No more than 50 TA cases listed must be credited toward the total requirement of 750 cases.
IV.C.9.a).(7).(b)	TA cases should not count towards the 150 minimum cases needed to fulfill the operative requirements for the chief resident year.
IV.C.9.a).(7).(c)	Junior residents performing these cases should also be credited as surgeon for these cases.

IV.D. Scholarly Activity

See International Foundational Requirements, Section IV.D.

V. Evaluation

V.A. Resident Evaluation

See International Foundational Requirements, Section V.A.

V.B. Clinical Competency Committee

V.B.1. The Clinical Competency Committee must:

V.B.1.a) conduct detailed reviews of resident case volume, breadth, and complexity;

V.B.1.b) assess resident acquisition and maintenance of technical and non-technical skills using competency-based evaluation that begins in the PGY-1 and allows for formative resident feedback and evidence of learning and development, and provides directly observed evidence for summative judgments; and,

V.B.1.c) specifically monitor residents' knowledge by use of a formal exam.

V.C. Faculty Evaluation

See International Foundational Requirements, Section V.C.

V.D. Program Evaluation and Improvement

See International Foundational Requirements, Section V.D.

V.E. Program Evaluation Committee

See International Foundational Requirements, V.E

VI. The Learning and Working Environment

See International Foundational Requirements, Section VI.