



ACGME International

**Advanced Specialty Program Requirements for
Graduate Medical Education in
Ophthalmology**

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Graduate Medical Education
in Ophthalmology**

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 surgical specialty of ophthalmology focuses on ophthalmic diseases and ocular surgery.

Int. II. Duration of Education

Int. II.A. The educational program in ophthalmology must be 36 or 48 months in length.

Int. II.A.1. The program may include an additional 12 months of education in fundamental clinical skills of medicine.

I. Institution

I.A. Sponsoring Institution

See International Foundational Requirements, Section I.A.

I.B. Participating Sites

I.B.1. There should be formal teaching case presentations at each participating site to ensure optimal utilization of patients for teaching purposes.

I.B.1.a) Alternatively, cases should be brought from participating sites to the Sponsoring Institution for presentation if formal teaching case presentations are held only there.

II. Program Personnel and Resources

II.A. Program Director

II.A.1. The program director should have a term of appointment of at least three years.

II.B. Faculty

- II.B.1. The members of the faculty must possess expertise across a broad range of ophthalmic disciplines, including: optics, visual physiology, and corrections of refractive errors; retina, vitreous, and uvea; neuro-ophthalmology; pediatric ophthalmology and strabismus; external disease and cornea; glaucoma, cataract, and anterior segment; oculoplastic surgery and orbital diseases; and ophthalmic pathology.

II.C. Other Program Personnel

See International Foundational Requirements, Section II.C.

II.D. Resources

II.D.1. Ambulatory

- II.D.1.a) The outpatient area of each participating site must have a minimum of one fully equipped examination lane for each resident in the clinic.
- II.D.1.b) There must be access to state-of-the-art diagnostic equipment for ophthalmic photography (including fluorescein angiography), perimetry, ultrasonography, keratometry, and retinal electrophysiology, as well as other appropriate equipment.

II.D.2. Inpatient

- II.D.2.a) There must be an adequate volume and variety of adult and pediatric clinical ophthalmological problems representing the entire spectrum of ophthalmic diseases so that residents can develop diagnostic, therapeutic, and manual skills and judge the appropriateness of treatment.
- II.D.2.b) The surgical facilities at each participating site must include at least one operating room fully equipped for ophthalmic surgery, including an operating microscope.
- II.D.2.c) An eye examination room with a slit lamp should be easily accessible.
- II.D.2.d) Residents should have access to a simulated operative setting (for example, a wet lab) to allow them to develop competence in basic surgical techniques.

III. Resident Appointment

III.A. Eligibility Criteria

- III.A.1. Residents must have successfully completed 12 months of a broad-based clinical program (PGY-1) that is:

- III.A.1.a) accredited by the ACGME International (ACGME-I), the ACGME, or the Royal College of Physicians and Surgeons of Canada in preliminary general surgery, preliminary internal medicine, or the transitional year; or,
- III.A.1.b) at the discretion of the Review Committee-International, a program for which a governmental or regulatory body is responsible for maintenance of a curriculum providing clinical and didactic experiences to develop competence in the fundamental clinical skills of medicine; or,
- III.A.1.b).(1) A categorical residency that accept candidates from these programs must complete an evaluation of each resident's fundamental clinical skills within six weeks of matriculation and must provide remediation to residents as needed.
- III.A.1.c) integrated into the residency where the program director must oversee and ensure the quality of didactic and clinical education.
- III.A.2. The PGY-1 must be completed in a structured program in which residents are educated in high-quality medical care based on scientific knowledge, evidence-based medicine, and sound teaching by qualified educators.
- III.A.3. With appropriate supervision, PGY-1 residents must have first-contact responsibility for evaluation and management for all types and acuity levels of patients.
- III.A.4. PGY-1 residents must have responsibility for decision-making and direct patient care in all settings, to include writing of orders, progress notes, and relevant records.
- III.A.5. Residents must develop competence in the following fundamental clinical skills during the PGY-1:
- III.A.5.a) obtaining a comprehensive medical history;
- III.A.5.b) performing a comprehensive physical examination;
- III.A.5.c) assessing a patient's medical condition;
- III.A.5.d) making appropriate use of diagnostic studies and tests;
- III.A.5.e) integrating information to develop a differential diagnosis; and,
- III.A.5.f) developing, implementing, and evaluating a treatment plan.

III.B. Number of Residents

- III.B.1. There must be at least two residents in each year of the program.

III.C. Resident Transfers

See International Foundational Requirements, Section III.C.

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; and,

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.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) technical and patient care responsibilities as primary surgeon, including for treatment of:

IV.A.1.b).(1).(a).(i) cataract;

IV.A.1.b).(1).(a).(ii) strabismus;

IV.A.1.b).(1).(a).(iii)	cornea;
IV.A.1.b).(1).(a).(iv)	glaucoma;
IV.A.1.b).(1).(a).(v)	glaucoma laser;
IV.A.1.b).(1).(a).(vi)	retina/vitreous;
IV.A.1.b).(1).(a).(vii)	oculoplastic/orbit; and,
IV.A.1.b).(1).(a).(viii)	global trauma.
IV.A.1.b).(1).(b)	optics, visual physiology, and corrections of refractive errors;
IV.A.1.b).(1).(c)	retina/uvea;
IV.A.1.b).(1).(d)	neuro-ophthalmology;
IV.A.1.b).(1).(e)	pediatric ophthalmology;
IV.A.1.b).(1).(f)	anterior segment;
IV.A.1.b).(1).(g)	orbital diseases;
IV.A.1.b).(1).(h)	ophthalmic pathology;
IV.A.1.b).(1).(i)	intra-operative skills;
IV.A.1.b).(1).(j)	managing systemic and ocular complications that may be associated with surgery and anesthesia;
IV.A.1.b).(1).(k)	providing acute and long-term post-operative care; and,
IV.A.1.b).(1).(l)	using local and general anesthetics.
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 of:
IV.A.1.c).(1).(a)	basic and clinical sciences specific to ophthalmology;

- IV.A.1.c).(1).(b) optics, visual physiology, and corrections of refractive errors;
- IV.A.1.c).(1).(c) retina, vitreous, and uvea;
- IV.A.1.c).(1).(d) neuro-ophthalmology;
- IV.A.1.c).(1).(e) pediatric ophthalmology and strabismus;
- IV.A.1.c).(1).(f) external disease and cornea;
- IV.A.1.c).(1).(g) glaucoma, cataract, and anterior segment;
- IV.A.1.c).(1).(h) oculoplastic surgery and orbital diseases; and,
- IV.A.1.c).(1).(i) ophthalmic pathology.

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 strengths, deficiencies, and limits in one's knowledge and expertise;
- IV.A.1.d).(1).(b) identify and perform appropriate learning activities;
- 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, residents, and other health professionals;
- IV.A.1.d).(1).(f) set learning and improvement goals;
- IV.A.1.d).(1).(g) systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement; and,
- IV.A.1.d).(1).(h) use information technology to optimize learning.

- 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 families, and health professionals. Residents must:
- IV.A.1.e).(1).(a) communicate 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) communicate effectively with physicians, other health professionals, and health-related agencies;
- IV.A.1.e).(1).(c) work effectively as a member or leader of a health care team or other professional group;
- IV.A.1.e).(1).(d) act in a consultative role to other physicians and health professionals;
- IV.A.1.e).(1).(e) maintain comprehensive, timely, and legible medical records, if applicable; and,
- IV.A.1.e).(1).(f) provide inpatient and outpatient consultation during the course of three years of education.

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; and,

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

IV.B. Regularly Scheduled Educational Activities

IV.B.1. If it includes an integrated PGY-1, the educational program must contain regularly scheduled didactic sessions that enhance and correspond to the residents' fundamental clinical skills education.

IV.B.2. The following topics must be covered during the educational program: optics, visual physiology, and corrections of refractive errors; retina, vitreous, and uvea; neuro-ophthalmology; pediatric ophthalmology and strabismus; external disease and cornea; glaucoma, cataract, and anterior segment; oculoplastic surgery and orbital diseases; and ophthalmic pathology.

IV.B.3. There must be a structured and regularly scheduled series of conferences and lectures on basic and clinical science.

IV.B.4. There must be didactic sessions in practice management, ethics, advocacy, visual rehabilitation, and socioeconomics.

IV.B.5. Residents must regularly attend all required didactic and clinical conferences.

IV.B.6. The formal didactic series should be a minimum of 360 hours.

IV.B.6.a) At least 200 of these hours must be provided at the primary clinical site.

IV.B.6.b) At least six hours per month should be devoted to case presentation conferences (e.g., grand rounds, continuous quality improvement) attended by several members of the faculty and a majority of the residents.

IV.C. Clinical Experiences

IV.C.1. If the program includes an integrated PGY-1, this experience must include a minimum of 11 months of direct patient care.

IV.C.1.a) During the integrated PGY-1, each resident's experiences must include responsibility for patient care commensurate with the resident's ability.

IV.C.1.a).(1) Residents must have responsibility for decision-making and direct patient care in all settings, subject to review and approval by senior-level residents and/or attending physicians, to include planning care and writing orders, progress notes, and relevant records.

- IV.C.1.b) At a minimum, 28 weeks must be in rotations provided by a discipline or disciplines that offer fundamental clinical skills in the primary specialties, such as emergency medicine, family medicine, general surgery, internal medicine, obstetrics and gynecology, or pediatrics.
- IV.C.1.b).(1) Subspecialty experiences, with the exception of critical care unit experiences, must not be used to meet fundamental clinical skills curriculum requirements.
- IV.C.1.b).(2) Each experience must be at minimum a four-week continuous block.
- IV.C.1.c) At a minimum, residents must have 140 hours of experience in ambulatory care in family medicine or primary care internal medicine, general surgery, obstetrics and gynecology, or pediatrics.
- IV.C.1.d) Residents must have a maximum of 20 weeks of elective experiences.
- IV.C.1.d).(1) Elective rotations should be determined by the educational needs of each individual resident.
- IV.C.2. Residents must have the opportunity to develop competence in:
- IV.C.2.a) pre-operative ophthalmic and general medical evaluation and assessment of indications for surgery and surgical risks and benefits;
- IV.C.2.b) obtaining informed consent;
- IV.C.2.c) intra-operative skills;
- IV.C.2.d) local and general anesthetic considerations;
- IV.C.2.e) acute and longer-term post-operative care; and,
- IV.C.2.f) management of systemic and ocular complications that may be associated with surgery and anesthesia.
- IV.C.3. Residents must participate in a minimum of 3,000 outpatient visits in which they perform a substantial portion of the examination.
- IV.C.3.a) Outpatients must represent a broad range of ophthalmic diseases.
- IV.C.4. By completion of the residency, each resident must have completed each of these procedures as primary surgeon:
- IV.C.4.a) cataract,

- IV.C.4.b) strabismus,
- IV.C.4.c) corneal surgery,
- IV.C.4.d) glaucoma,
- IV.C.4.e) glaucoma laser,
- IV.C.4.f) other retinal,
- IV.C.4.g) oculoplastic/orbital, and
- IV.C.4.h) globe trauma.
- IV.C.5. By completion of the residency, each resident must have completed the following procedures as either primary surgeon or first assistant:
 - IV.C.5.a) refractive surgery, and
 - IV.C.5.b) retina/vitreous.
- IV.C.6. By completion of the residency, each resident should complete at least 364 total surgical procedures.
- IV.C.7. Residents should have a minimum of 36 hours of experience in gross and microscopic examination of pathological specimens through conferences and/or study sets in addition to their review of pathological specimens of their own patients with a pathologist who has demonstrated expertise in ophthalmic pathology.

IV.D. Scholarly Activity

See International Foundational Requirements, Section IV.D.

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. Faculty members must provide direct supervision; or,

VI.D.1.a) Direct supervision must include the resident serving as primary care provider with the faculty member present followed by resident and faculty member collaboration to determine management.

VI.D.2. be on site and readily available to see any patient.

VI.E. Professionalism

See International Foundational Requirements, Section VI.E.

VI.F. Well-Being

See International Foundational Requirements, Section VI.F.

VI.G. Fatigue

See International Foundational Requirements, Section VI.G.

VI.H. Transitions of Care

See International Foundational Requirements, Section VI.H.

VI.I. Clinical Experience and Education

See International Foundational Requirements, Section VI.I.

VI.J. On-Call Activities

See International Foundational Requirements, Section VI.J.