



ACGME International

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

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Graduate Medical Education
in Urology**

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 urology evaluates and treats patients with disorders of the genitourinary tract, including the adrenal gland. Prevention and treatment of genitourinary disease includes the diagnosis, medical and surgical management, and reconstruction of the genitourinary tract.

Int. II. Duration of Education

Int. II.A. The educational program in urology 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

See International Foundational Requirements, Section II.A.

II.B. Faculty

II.B.1. Several faculty members should have subspecialty experience and concentrate their practice in one or more of the following urological domains:

II.B.1.a) calculus disease;

II.B.1.b) female urology;

II.B.1.c) infertility;

- II.B.1.d) oncology;
- II.B.1.e) pediatrics;
- II.B.1.f) reconstruction;
- II.B.1.g) sexual dysfunction; and,
- II.B.1.h) voiding dysfunction.
- II.B.2. Faculty members should have experience with the following urologic techniques:
 - II.B.2.a) endo-urology;
 - II.B.2.b) major flank and pelvic surgery;
 - II.B.2.c) microsurgery;
 - II.B.2.d) minimally invasive intra-abdominal and pelvic surgical techniques, such as laparoscopy/robotics; and,
 - II.B.2.e) urologic imaging.
- II.B.3. Physician faculty members with expertise in trauma, interventional radiology, plastic surgery, and medical oncology should have clinical interaction with residents.

II.C. Other Program Personnel

See International Foundational Requirements, Section II.C.

II.D. Resources

- II.D.1. Equipment to perform the following procedures must be available:
 - II.D.1.a) extracorporeal shock wave lithotripsy;
 - II.D.1.b) flexible cystoscopy;
 - II.D.1.c) fluoroscopy;
 - II.D.1.d) laparoscopy;
 - II.D.1.e) laser therapy;
 - II.D.1.f) percutaneous endoscopy;
 - II.D.1.g) percutaneous renal access;

- II.D.1.h) ultrasonography and biopsy; and,
- II.D.1.i) ureteroscopy.
- II.D.2. Urodynamic evaluation equipment should be present.
- II.D.3. Video imaging should be available to allow adequate supervision and education during endoscopic procedures.

III. Resident Appointment

See International Foundational Requirements, Section III.

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) attendant skills in medical and surgical therapy related to the normal and diseased genitourinary system;

IV.A.1.b).(1).(b)	counseling and managing patients with complex, high-risk urologic interventions, with potential impact on quantity or quality of life;
IV.A.1.b).(1).(c)	core techniques, specifically:
IV.A.1.b).(1).(c).(i)	manipulating, repairing, and/or excising (as necessary) internal structures with appropriate instrument selection for a majority of urologic procedures;
IV.A.1.b).(1).(c).(ii)	manipulating endoscopic equipment with appropriate instrument selection and correct force, speed, depth, and distance for a majority of transurethral and ureteroscopic and percutaneous cases;
IV.A.1.b).(1).(c).(iii)	manipulating endoscopic and office surgical equipment with correct force, speed, depth, and distance for routine and complex cases;
IV.A.1.b).(1).(c).(iv)	manipulating laparoscopic and/or robotic equipment with appropriate instrument selection and correct force, speed, depth, and distance for routine cases;
IV.A.1.b).(1).(c).(v)	endourology; and,
IV.A.1.b).(1).(c).(vi)	urologic imaging, including fluoroscopy, interventional radiology, and ultrasound.
IV.A.1.b).(1).(d)	identifying and managing common and uncommon intra-operative and post-operative physiologic alterations and complications; and,
IV.A.1.b).(1).(e)	initial evaluation, establishment of diagnosis, selection of appropriate therapy, and management of complications in their patients based on common and advanced diagnostic test results.
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 related to the normal and diseased genitourinary system;

IV.A.1.c).(1).(b)	core topics as they pertain to urology, including:
IV.A.1.c).(1).(b).(i)	adrenal disease;
IV.A.1.c).(1).(b).(ii)	anatomy;
IV.A.1.c).(1).(b).(iii)	biostatistics and epidemiology;
IV.A.1.c).(1).(b).(iv)	BPH and voiding dysfunction;
IV.A.1.c).(1).(b).(v)	calculus disease;
IV.A.1.c).(1).(b).(vi)	female pelvic medicine;
IV.A.1.c).(1).(b).(vii)	fistulae;
IV.A.1.c).(1).(b).(viii)	geriatrics;
IV.A.1.c).(1).(b).(ix)	hypertension and renovascular disease
IV.A.1.c).(1).(b).(x)	infections;
IV.A.1.c).(1).(b).(xi)	infectious disease;
IV.A.1.c).(1).(b).(xii)	medical oncology;
IV.A.1.c).(1).(b).(xiii)	neurogenic bladder and incontinence;
IV.A.1.c).(1).(b).(xiv)	pediatrics;
IV.A.1.c).(1).(b).(xv)	physiology;
IV.A.1.c).(1).(b).(xvi)	renal transplantation;
IV.A.1.c).(1).(b).(xvii)	reproductive and sexual dysfunction;
IV.A.1.c).(1).(b).(xviii)	trauma;
IV.A.1.c).(1).(b).(xix)	urethral and ureteral reconstruction;
IV.A.1.c).(1).(b).(xx)	uropathology; and,
IV.A.1.c).(1).(b).(xxi)	uroradiology and radiation safety.
IV.A.1.c).(2)	physics of ultrasound;
IV.A.1.c).(3)	ultrasound techniques; and,
IV.A.1.c).(4)	ultrasound abnormalities of the genitalia, prostate, bladder, and kidney.

- 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) 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; and,

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

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. Resident didactic conferences must include:

IV.B.1.a) combined morbidity and mortality conferences for all participating sites;

IV.B.1.b) journal review;

IV.B.1.c) urological imaging conferences; and,

IV.B.1.d) urological pathology conferences.

IV.B.2. Resident didactic instruction must include the following core topics:

IV.B.2.a) calculus disease;

- IV.B.2.b) female urology;
- IV.B.2.c) oncology;
- IV.B.2.d) pediatrics;
- IV.B.2.e) reproductive and sexual dysfunction;
- IV.B.2.f) urethral and ureteral reconstruction; and,
- IV.B.2.g) voiding dysfunction.

IV.B.3. Resident instruction must include:

- IV.B.3.a) bioethics;
- IV.B.3.b) biostatistics;
- IV.B.3.c) epidemiology;
- IV.B.3.d) geriatrics;
- IV.B.3.e) infectious disease;
- IV.B.3.f) medical oncology;
- IV.B.3.g) plastic surgery;
- IV.B.3.h) radiation safety;
- IV.B.3.i) renal transplantation;
- IV.B.3.j) renovascular disease; and,
- IV.B.3.k) trauma.

IV.B.4. Resident didactic instruction should include the following core techniques:

- IV.B.4.a) endo-urology;
- IV.B.4.b) major flank and pelvic surgery;
- IV.B.4.c) microsurgery;
- IV.B.4.d) minimally-invasive intra-abdominal and pelvic surgical techniques, such as laparoscopy/robotics;
- IV.B.4.e) perineal and genital surgery; and,

IV.B.4.f) urologic imaging, including fluoroscopy, interventional radiology, and ultrasound.

IV.C. Clinical Experiences

IV.C.1. During the first year of the program, residents must spend:

IV.C.1.a) at least three months in general surgery; and,

IV.C.1.a).(1) This general surgery period should be developed jointly with a designated faculty member of an ACGME-I-accredited surgery program with the input and approval of the urology program director.

IV.C.1.b) at least three months in the core surgical rotations of critical care, vascular surgery, or trauma.

IV.C.2. The remaining education:

IV.C.2.a) must focus on direct patient care in urology, including the following index categories and procedures in adult urology:

IV.C.2.a).(1) endourology and stone disease;

IV.C.2.a).(2) general urology;

IV.C.2.a).(3) laparoscopy;

IV.C.2.a).(4) oncology; and,

IV.C.2.a).(5) urethral and ureteral reconstruction.

IV.C.2.b) should include the following index categories and procedures in pediatric urology:

IV.C.2.b).(1) endoscopy;

IV.C.2.b).(2) hydrocele/hernia and orchiopexy; and,

IV.C.2.b).(3) hypospadias and ureter.

IV.C.3. Residents must participate in the continuity of patient care through pre- and post-operative clinics and inpatient contact.

IV.C.3.a) When residents participate in pre- and post-operative care in a clinic or private office setting, they should have responsibility, under supervision, for the total care of the patient, including initial evaluation, establishment of diagnosis, selection of appropriate therapy, and management of complications.

- IV.C.4. Within the final 24 months of urology education, each resident must serve at least 12 months as a chief resident.
- IV.C.4.a) The clinical and academic experience as a chief resident should prepare the resident for the independent practice of urology.
- IV.C.4.b) The chief resident experience should include management of patients with complex urologic disease, advanced procedures, and, with appropriate supervision, a high level of responsibility and independence.
- IV.C.5. Residents should be given responsibility based on their knowledge, problem-solving abilities, manual skills, experience, and the severity and complexity of each patient's status.

IV.D. Scholarly Activity

IV.D.1. Resident Scholarly Activities

- IV.D.1.a) Documentation of resident performance of scholarly activity should be demonstrated by manuscript preparation, lectures, teaching activities, abstracts, and active performance of research or participation in clinical studies and reviews.

IV.D.2. Faculty Scholarly Activities

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

V. Evaluation

See International Foundational Requirements, Section V.

VI. The Learning and Working Environment

See International Foundational Requirements, Section VI.