



ACGME International

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

Revised: 12/12/2015, effective: 7/1/2016
Initial approval: 9/12/12

ACGME International Advanced Specialty Program Requirements for Graduate Medical Education in Urology

I. Introduction

I.A. Definition and Scope of 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.

I.B. Duration of Education

I.B.1. The education in urology must be 60 or 72 months in length.

II. Institutions

II.A. Sponsoring Institution

See International Foundational Requirements, Section I.A.

II.B. Participating Sites

See International Foundational Requirements, Section I.B.

III. Program Personnel and Resources

III.A. Program Director

See International Foundational Requirements, Section II.A.

III.B. Faculty

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

III.B.1.a) calculus disease;

III.B.1.b) female urology;

III.B.1.c) infertility;

III.B.1.d) oncology;

III.B.1.e) pediatrics;

III.B.1.f) reconstruction;

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

III.C. Other Program Personnel

See International Foundational Requirements, Section II.C.

III.D. Resources

- III.D.1. Equipment to perform the following procedures must be available:
 - III.D.1.a) extracorporeal shock wave lithotripsy;
 - III.D.1.b) flexible cystoscopy;
 - III.D.1.c) fluoroscopy;
 - III.D.1.d) laparoscopy;
 - III.D.1.e) laser therapy;
 - III.D.1.f) percutaneous endoscopy;
 - III.D.1.g) percutaneous renal access;
 - III.D.1.h) ultrasonography and biopsy; and,
 - III.D.1.i) ureteroscopy.
- III.D.2. Urodynamic evaluation equipment should be present.

III.D.3. Video imaging should be available to allow adequate supervision and education during endoscopic procedures.

IV. Resident Appointments

IV.A. Eligibility Criteria

See International Foundational Requirements, Section III.A.

IV.B. Number of Residents

See International Foundational Requirements, Section III.B.

V. Specialty-Specific Educational Program

V.A. Regularly Scheduled Didactic Sessions

V.A.1. Resident didactic conferences must include:

V.A.1.a) combined morbidity and mortality conferences for all participating sites;

V.A.1.b) journal review;

V.A.1.c) urological imaging conferences; and,

V.A.1.d) urological pathology conferences.

V.A.2. Resident didactic instruction must include the following core topics:

V.A.2.a) calculus disease;

V.A.2.b) female urology;

V.A.2.c) oncology;

V.A.2.d) pediatrics;

V.A.2.e) reproductive and sexual dysfunction;

V.A.2.f) urethral and ureteral reconstruction; and,

V.A.2.g) voiding dysfunction.

V.A.3. Resident instruction must include:

V.A.3.a) bioethics;

V.A.3.b) biostatistics;

V.A.3.c) epidemiology;

- V.A.3.d) geriatrics;
- V.A.3.e) infectious disease;
- V.A.3.f) medical oncology;
- V.A.3.g) plastic surgery;
- V.A.3.h) radiation safety;
- V.A.3.i) renal transplantation;
- V.A.3.j) renovascular disease; and,
- V.A.3.k) trauma.
- V.A.4. Resident didactic instruction should include the following core techniques:
 - V.A.4.a) endo-urology;
 - V.A.4.b) major flank and pelvic surgery;
 - V.A.4.c) microsurgery;
 - V.A.4.d) minimally-invasive intra-abdominal and pelvic surgical techniques (such as laparoscopy/robotics);
 - V.A.4.e) perineal and genital surgery; and,
 - V.A.4.f) urologic imaging including fluoroscopy, interventional radiology, and ultrasound.

V.B. Clinical Experiences

- V.B.1. During the first year of the program residents must spend:
 - V.B.1.a) at least three months in general surgery; and,
 - V.B.1.a).(1) This general surgery period should be developed jointly with a designated faculty member of an Accreditation Council for Graduate Medical Education International (ACGME-I)-accredited surgery program with the input and approval of the urology program director.
 - V.B.1.b) at least three months in the core surgical rotations of critical care, vascular surgery, or trauma.
- V.B.2. The remaining education in urology:

- V.B.2.a) must focus on direct patient care in urology, including the following index categories and procedures in adult urology:
- V.B.2.a).(1) endourology and stone disease;
 - V.B.2.a).(2) general urology;
 - V.B.2.a).(3) laparoscopy;
 - V.B.2.a).(4) oncology; and,
 - V.B.2.a).(5) urethral and ureteral reconstruction.
- V.B.2.b) should include the following index categories and procedures in pediatric urology:
- V.B.2.b).(1) endoscopy;
 - V.B.2.b).(2) hydrocele/hernia and orchiopexy; and,
 - V.B.2.b).(3) hypospadias and ureter.
- V.B.3. Residents must participate in the continuity of patient care through pre-operative and post-operative clinics and inpatient contact.
- V.B.3.a) When residents participate in pre-operative 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.
- V.B.4. Within the final 24 months of urology education, each resident must serve at least 12 months as a chief resident.
- V.B.4.a) The clinical and academic experience as a chief resident should prepare the resident for the independent practice of urology.
 - V.B.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.
- V.B.5. Residents should be given responsibility based upon their knowledge, problem-solving abilities, manual skills, experience, and the severity and complexity of each patient's status.

V.C. Residents' Scholarly Activities

V.C.1. 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.

V.D. Duty Hour and Work Limitations

See International Foundational Requirements, Section VI.

VI. ACGME-I Competencies

VI.A. Patient Care

Residents must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. Residents must demonstrate proficiency in:

- VI.A.1. attendant skills in medical and surgical therapy related to the normal and diseased genitourinary system;
- VI.A.2. counseling and managing patients with complex, high-risk urologic interventions, with potential impact on quantity or quality of life;
- VI.A.3. core techniques, specifically:
 - VI.A.3.a) manipulating, repairing, and/or excising (as necessary) internal structures with appropriate instrument selection for a majority of urologic procedures;
 - VI.A.3.b) manipulating endoscopic equipment with appropriate instrument selection and correct force, speed, depth, and distance for a majority of transurethral and ureteroscopic and percutaneous cases;
 - VI.A.3.c) manipulating endoscopic and office surgical equipment with correct force, speed, depth, and distance for routine and complex cases;
 - VI.A.3.d) manipulating laparoscopic and/or robotic equipment with appropriate instrument selection and correct force, speed, depth, and distance for routine cases;
 - VI.A.3.e) endourology; and,
 - VI.A.3.f) urologic imaging including fluoroscopy, interventional radiology, and ultrasound.
- VI.A.4. identifying and managing common and uncommon intra-operative and post-operative physiologic alterations and complications; and,

VI.A.5. initial evaluation, establishment of diagnosis, selection of appropriate therapy, and management of complications in their patients based on common and advanced diagnostic test results.

VI.B. Medical Knowledge

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 proficiency in knowledge of:

VI.B.1. basic and clinical sciences related to the normal and diseased genitourinary system;

VI.B.2. core topics as they pertain to urology, including:

VI.B.2.a) adrenal disease;

VI.B.2.b) anatomy;

VI.B.2.c) biostatistics and epidemiology;

VI.B.2.d) BPH and voiding dysfunction;

VI.B.2.e) calculus disease;

VI.B.2.f) female pelvic medicine;

VI.B.2.g) fistulae;

VI.B.2.h) geriatrics;

VI.B.2.i) hypertension and renovascular disease

VI.B.2.j) infections;

VI.B.2.k) infectious disease;

VI.B.2.l) medical oncology;

VI.B.2.m) neurogenic bladder and incontinence;

VI.B.2.n) pediatrics;

VI.B.2.o) physiology;

VI.B.2.p) renal transplantation;

VI.B.2.q) reproductive and sexual dysfunction;

- VI.B.2.r) trauma;
- VI.B.2.s) urethral and ureteral reconstruction;
- VI.B.2.t) uropathology; and,
- VI.B.2.u) uroradiology and radiation safety.
- VI.B.3. physics of ultrasound;
- VI.B.4. ultrasound techniques; and,
- VI.B.5. ultrasound abnormalities of the genitalia, prostate, bladder, and kidney.

VI.C. Practice-based Learning and Improvement

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 life-long learning. Residents are expected to develop skills and habits to be able to meet the following goals:

- VI.C.1. identify strengths, deficiencies, and limits in one's knowledge and expertise;
- VI.C.2. set learning and improvement goals;
- VI.C.3. identify and perform appropriate learning activities;
- VI.C.4. systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement;
- VI.C.5. incorporate formative evaluation feedback into daily practice;
- VI.C.6. locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems;
- VI.C.7. use information technology to optimize learning; and,
- VI.C.8. participate in the education of patients, families, students, residents, and other health professionals.

VI.D. Interpersonal and Communication Skills

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:

- VI.D.1. communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds;

- VI.D.2. communicate effectively with physicians, other health professionals, and health-related agencies;
- VI.D.3. work effectively as a member or leader of a health care team or other professional group;
- VI.D.4. act in a consultative role to other physicians and health professionals; and,
- VI.D.5. maintain comprehensive, timely, and legible medical records, if applicable.

VI.E. Professionalism

Residents must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles. Residents must demonstrate:

- VI.E.1. compassion, integrity, and respect for others;
- VI.E.2. responsiveness to patient needs that supersedes self-interest;
- VI.E.3. respect for patient privacy and autonomy;
- VI.E.4. accountability to patients, society, and the profession; and,
- VI.E.5. sensitivity and responsiveness to a diverse patient population, including diversity in gender, age, culture, race, religion, disabilities, and sexual orientation.

VI.F. Systems-based Practice

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:

- VI.F.1. work effectively in various health care delivery settings and systems relevant to the clinical specialty;
- VI.F.2. coordinate patient care within the health care system relevant to the clinical specialty;
- VI.F.3. incorporate considerations of cost awareness and risk-benefit analysis in patient- and/or population-based care as appropriate;
- VI.F.4. advocate for quality patient care and optimal patient care systems;
- VI.F.5. work in inter-professional teams to enhance patient safety and improve patient care quality; and,

VI.F.6. participate in identifying system errors and implementing potential systems solutions.