

## Urology Goals and Objectives

General Objectives of the Urology Resident Program: Residents are expected to acquire and apply these skills at the URO-1 level and to further master them throughout the remainder of the training program. Residents receive written goals and objectives for each major assignment for each level of the program in their training manual which is updated annually.

**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. Each resident is expected to:

1. Complete a comprehensive history and physical( outpatient and inpatient care)
2. Develop responsible practices in medical record keeping.
3. Act responsibly as a physician, making judgments and decisions regarding patient care in basic settings including ordering appropriate laboratory and radiological tests. Generate proper differential diagnosis.
4. Recommend and administer appropriate age specific care and screening for urological diseases.  
Implement progressive patient management and continuity of patient care.
5. Prepare for surgical cases including demonstrating knowledge of the risks and rationale for commonly performed cases. Exhibit knowledge of and be able to effectively identify and manage postoperative problems.
7. Demonstrate surgical proficiency and technical ability during surgical cases suitable for their training level.
8. Identify conditions requiring hospitalization
  - Select appropriate lab tests and diagnostic studies and interpret the results.
  - Adequate pelvic exam with speculum.
  - Cystoscopy and diagnostic studies such as retrograde pyelography.
  
  - Cystoscopy and associated diagnostic and/or therapeutic procedures including internal urethrotomy, balloon dilation of strictures, fulguration of bleeding, random bladder biopsies, placement of or removal of ureteral stents, and lithotripsy of bladder calculi.
  - Uncomplicated ureteroscopy with and without stone treatment.
  - Open prostatectomies for benign disease.
  - Pelvic lymph node dissections.
  - Scrotal and inguinal operative procedures including scrotal/penile trauma and testicular torsion.
  - Penile surgery including circumcision, treatment of priapism, penile biopsy and treatment of penile condyloma
  - Bladder surgery including but not limited to repair of bladder injuries, partial cystectomy, and cystostomy.

- Placement of Foley catheter in difficulty patients and placement of suprapubic tubes.
- Bladder ultrasonography.
- Transrectal ultrasonography and prostate biopsies with and without performance of prostate block.
- Begin learning technique of transurethral resection of small obstructing prostatic adenoma

Evaluation Methods:

1. Clinical Performance Ratings
2. Focused Observation and Evaluation
3. 360 Degree Assessments
4. Evaluation Committees
5. Structured Case Discussions
6. Review of Case or Procedure Log
7. Resident Project Report (Portfolio)
8. Chart Stimulated recall

**Medical Knowledge-** All residents must demonstrate knowledge about established and evolving biomedical, clinical, and cognate sciences and how to apply this knowledge to patient care. Residents are expected to:

1. Given the comprehensive history and physical the residents will be able to recognize genitourinary problems.
  1. Identify indications for surgical intervention and identify coexisting medical problems.
2. Demonstrate knowledge of urologic anatomy and an understanding of the pathophysiology of urologic condition and diseases including adrenal disease and endocrinology, andrology, calculus disease, endourology, extracorporeal shock wave lithotripsy, impotence, infertility, female urology, geriatric urology, infectious disease, laparoscopy, neurourology, obstructive disease, oncology, pediatric urology, renovascular disease, sexual dysfunction, renal transplantation, trauma, and urodynamics.
3. Recognize and diagnose basic emergency room problems.
4. Identify conditions requiring hospitalization.
5. Identify basic endourological equipment such as flexible and rigid cystoscopes, flexible and semi-rigid ureteroscopes, various types of stents, stone baskets, types of lasers, balloon dilators and demonstrate knowledge on how and when such equipment may be required.
6. Use fluoroscopy and implement safety issues concerning the use of fluoroscopy as it relates to physicians, nurses, techs and patients.

Evaluation Methods:

1. Clinical Performance Ratings
2. Focused Observation and Evaluation
3. 360 Degree Assessments
4. Evaluation Committees
5. Structured Case Discussions (Oral Exam)
6. In-training Exams (MCQ)

## 7. Chart Stimulated Recall

**Practice Based Learning and Improvement-** Residents must be able to investigate and evaluate their patient care practices, appraise and assimilate scientific evidence, and improve their patient care practices. Residents are expected to:

1. Demonstrate an ongoing process of learning through regular study, reading, literature review, conference participation and attendance, and education of medical students.
2. Use information technology (IT) to manage information and access online medical information. Application of this knowledge (IT) should be used to improve patient care.
3. Develop skills in teaching the field of urology to students and staff. (Facilitate the learning of others)
4. Engage in on going learning including extra reading and surgical practice when indicated, seeks information from the literature. Support their education.
5. Change practice patterns in response to feedback.
6. Use Systematic approach such as surgical log review to compare own outcomes to accepted guidelines and national or peer data, then identify strengths or weaknesses to make improvements as needed.

### Evaluation Methods

1. Chart Stimulated Recall
2. Clinical Performance Ratings
3. Focused Observation and Evaluation
4. 360 Degree Assessments
5. Evaluation Committees
6. Structured Case Discussions
7. In-training Exams (MCQ)
8. Review of Case or Procedure Logs
9. Resident Project Report (Portfolio)
10. Journal Club

**Interpersonal and Communication Skills-** Residents must be able to demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their families, and professional associates. Residents are expected to:

1. Share data obtained from patient history and physicals with colleagues in an organized, clear, concise and logical manner in both written and oral forms. (prepare written and oral reports in order to share data with colleagues)
2. Behave professionally and communicate well with colleagues, nurses, secretaries and other members of hospital staff and healthcare team.
3. Demonstrate care and concern for patients and their families. Create and sustain a therapeutic and ethically sound relationship with patients.
4. Communicate effectively with patients and their families.

## 5. Scholarly communication

### Evaluation Methods:

1. Focused Observation and Evaluation (Check List)
2. 360 Degree Assessments
3. Structured Case Discussions
4. Grand Rounds and other resident presentations

**Professionalism** - Residents must demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population. Residents are expected to:

1. Exercise basic ethical principles involved in the field of urology (displays integrity and ethical behavior).
2. Demonstrate respect, compassion and integrity. (ACGME website)
3. Organize patient care with regards to the patient's culture, gender, age, and disabilities. (ACGME website)
4. Accept responsibility and follows through on tasks
5. Practice within the scope of his/her abilities

### Evaluation Methods:

1. Clinical Performance Ratings
2. 360 Degree Assessments
3. Evaluation Committees
4. Structured Case Discussion
5. Review of Case or Procedure Logs
6. Resident Project Report (Portfolio)
7. Chart Stimulated Recall

**Systems Based Practice**- Residents must demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value. Residents are expected to:

1. Compare and contrast cost benefit/efficient medical procedures
2. Collaborate with other medical/health care professionals to create appropriate and cost efficient patient care.
3. Identify how the health care system works and apply this knowledge to provide the best patient care (assure patient awareness of available care options).
4. Work to promote patient safety.
5. Recognize how their patient care and other professional practices affect other health care

professionals, the health care organization, and the larger society and how these elements of the system affect their own practice.

6. Utilize different types of medical practices and delivery systems and understand how they differ.

Evaluation Methods:

1. 360 Degree Assessments
2. In-training Exams (MCQ)
3. Resident Project Report (Portfolio)
4. Chart Stimulated Recall
5. Structured Case Discussions

**URO-1:** During the first year of urology, residents are assigned for 12 months to the VA Hospital rotation. The goals are to provide the residents with an introduction to the principles of genitourinary diseases and the evaluation and management of patients with these disorders. In order to build the foundation to achieve these goals, the residents must demonstrate knowledge for each specific objective listed in the above section.

**URO-2:** The goals for the second year of training are to build on the knowledge base established in the first year of education. The same general objectives should be met with increasing responsibility at the specific rotation. The second year residents are assigned 4 months to the pediatric service at LeBonheur Children's Medical Center, 4 months at the MED rotation and 4 months of research. Specific goals and objectives for these rotations are outlined below.

**LeBonheur (Pediatric) Rotation:** For most of the residents, this rotation represents the first direct exposure to pediatric patients since their pediatric experience as a medical student. Therefore, a significant objective of this rotation is to provide the resident with an understanding of the basic principles and nuances of pediatric care. The resident is to acquire knowledge especially of congenital anomalies and the embryologic basis of these anomalies, develop skills necessary for the diagnosis and treatment of ambulatory pediatric problems such as enuresis, incontinence and urinary tract infections, learn the indications and contraindications for diagnostic studies and demonstrate the skills needed for the pre and post-operative management of pediatric patients. The resident will acquire knowledge specific for hospitalized pediatric patients, with particular attention to associated urological problems. During this rotation, the resident will acquire the following clinical skills applicable to pediatric urology:

Cystoscopy and associated diagnostic studies (including urodynamics)  
Inguinal and scrotal operative procedures  
Penile and urethral surgery such as circumcision, meatotomy, chordee' correction, and uncomplicated hypospadias.  
Uncomplicated ureteral reimplantations.

**Regional Medical Center (MED) Hospital:** During this rotation, the residents are responsible for the urologic care, diagnostic evaluation, and operative procedures performed on patients either admitted directly to this institution or seen by the resident in the Urology Clinic. The objectives of the rotation are for the residents to attain confidence in his/her abilities to manage a urologic service, under supervision, by providing appropriate pre- and post-operative care, operative care, and continuity of care during a 4 month rotation. During this rotation, the resident is under the supervision of the assigned faculty. An additional objective of the rotation is for the resident to acquire additional fundamental urologic knowledge, particularly applicable to urologic sub-specialization. The resident will acquire additional surgical skills such as:

- Percutaneous renal surgery
- Laparoscopic urology
- Advanced endourology including flexible and rigid ureteroscopy with
- Use of Holmium laser and various baskets/stents.
- Transurethral Resection of Prostate and Gyrus electrovaporization techniques
- Transurethral Resection of Bladder tumor
- Retrograde Endopyelotomy
- Antegrade Endopyelotomy
- Anti-incontinence surgery including injection therapy and male/female slings
- Nephrolithotomy
- Retroperitoneal lymph node dissection

Neuromodulation (interstim) and Botox therapy

At this level the resident will acquire necessary skills to assist in major oncology cases such as radical prostatectomy, radical nephrectomy and radical cystectomy with urinary diversion.

**Research:** It is our philosophy that resident education must include some participation in urologic research. In regard to this philosophy, although not protected time, a research rotation is included in the **URO-2** year. This resident is assigned to research; however he/she will continue to have clinical responsibilities including being assigned to the call schedule and assisting with other clinical duties if needed as determined by the Program Director. The majority of daily activity will be involved with basic science and clinical urologic research. This will occur through a local private research company that has a close association with our department and The University of Tennessee.

**URO-3:** This year serves as a precursor for their senior year by increasing the responsibility and expectations of this level resident. Third year urology residents are assigned for 4 months each to The MED, Methodist University Hospital and the VA Urology Spinal Cord Injury and Stone Center. Specific goals and objectives for these rotations are outlined below:

**MED Rotation.** This is the first opportunity for this level resident to function as a chief resident. It serves as a prelude to their senior year. The faculty maintains a supervisory role but the resident will manage the service and participate in the education of a junior resident on this service. During this rotation, the URO-3 resident is responsible for the urologic care, diagnostic evaluation, and operative procedures performed on patients either admitted directly to this institution or seen by the resident in the Urology Clinic. The objectives of the rotation are for the resident to attain abilities to manage a urologic service, under supervision, by providing appropriate pre- and post-operative care, operative care, and continuity of care during a 4 month rotation. Another objective of the rotation is for the resident to acquire additional fundamental urologic knowledge, particularly applicable to urologic sub-specialization. The resident will demonstrate additional skills such as:

Surgical and non-surgical management of all types of GU trauma  
Percutaneous renal surgery  
Laparoscopic urologic procedures  
Radical prostatectomy  
Radical cystectomy with various types of urinary diversions

Radical nephrectomy  
Nephrolithotomy and other treatments for complex stone disease  
Retroperitoneal lymph node dissection  
Surgery for incontinence including periurethral injection therapy and various types of sling procedures.  
Reconstructive urology including various types of Urethroplasties.  
Advanced endourology including use of Holmium laser  
Invasive therapy of priapism

**VA Urologic Spinal Cord-Stone Center Rotation.** The specific objective of this rotation is for the resident to acquire additional knowledge in neurogenic diseases of the genitourinary tract, urodynamics, and renal stone disease. The resident will demonstrate skills in specialized urologic procedures such as:

Neuro-urology including interpretation of urodynamics and apply this information to patient care  
Evaluation and management of complex urologic problems in the spinal cord injury population  
(Medical and surgical)  
Complicated percutaneous stone surgery  
Complicated ureteroscopy with stone extraction and use of Holmium laser  
ESWL with and without conscious sedation techniques  
Complicated open renal stone surgery  
Bladder augmentation and urinary diversion  
Single and multiple stage Urethroplasty  
Reconstructive urology

**Methodist University Hospital Rotation.** During this rotation the URO-3 resident is responsible for urologic care, diagnostic evaluation, and operative procedures performed on patients admitted to the hospital by the full time and clinical faculty and patients seen by the residents in their urology clinic. The objectives of this rotation are for the resident to demonstrate the necessary skills to manage urologic patients by providing appropriate pre and post operative care, assisting or performing the needed surgical procedures and maintaining continuity of care during this 4 month rotation. The URO-4 assigned to this rotation also provides guidance and assists with administrative duties.

**URO-4:** During the fourth and final year of the urology program, residents serve as chief for 4 months each at the Methodist University Hospital, VA and LeBonheur Children's Hospital.

Goals and objectives for the final year of training are for the resident to assume in a responsible manner the administrative requirements of a chief resident. As a chief, residents will assume a commanding role and actively pursue a fine-tuning of their service. Although the faculty maintains a supervisory role, chief residents will manage their respective services and will participate in the education of junior residents on their service. Having built a solid foundation of urologic knowledge and clinical expertise, chief residents, although still responsible to the faculty, will be capable of independently managing their respective services and they should be able to

appropriately delegate responsibilities. Additional surgical skills will be acquired which include the following:

- Cryosurgery for urologic cancer (renal and prostate)
- Anatomic radical prostatectomy
- Inflatable penile prostheses (2 piece and 3 piece)
- Repair of female urinary incontinence
- Repair of pelvic prolapse (cystocele, enterocele and rectocele)
- Radical nephrectomy
- Partial nephrectomy
- Complicated hypospadias repair
- Complicated renal surgery
- Bilateral ureteral reimplantations
- Fulguration of posterior urethral valves
- Transurethral resection of prostatic adenomas in excess of 60 grams
- Transurethral resection of large bladder tumors
- Continent urinary diversion
- Pelvic exoneration
- Adrenal surgery
- Laparoscopic surgery and reconstructive/female urology

Other skills will be acquired including the following:

- Demonstrate knowledge in medical ethics
- Demonstrate knowledge of the health care delivery system and practice management
- Demonstrate appropriate use of community resources and other physicians through consultations when needed.
- Demonstrate knowledge of evaluation and management coding and billing and compliance (HCFA/HIPAA) issues.
- Demonstrate continued responsible practices in medical record keeping developed at the URO-1 level.
- Demonstrate knowledge of urologic career opportunities including private practice, academic, fellowship and research options.
- Score in the 30<sup>th</sup> percentile or better on the yearly Urology in-service training examination.

2. Provide a narrative description for each year of the urology educational program. Describe the resident assignments with respect to their duties and responsibilities in all institutions; include the length of all assignments and the goals and objectives for each assignment. Explain how graded responsibility and continuity of care are implemented. (P.R. V. A., B.)

**URO 1:** First year residents spend 12 months at the **VA Hospital**. This rotation provides resident exposure to a large volume of non-private patients. This rotation has adequate facilities for in-patient and outpatient care. During this rotation the first year urology residents learn, under supervision, the proper assessment of urologic outpatients with particular attention to preoperative assessment. They are responsible for the evaluation and subsequent admission history and physical for those patients requiring hospitalization. They

also see these patients for postoperative management in conjunction with the chief resident. During the hospitalization, the first year resident is responsible, under supervision, for the routine hospital care, arrangements for diagnostic studies, and preparation for the operating room. During this year, the residents are initiated into the fundamentals of transurethral surgery under the personal supervision of the faculty. During October and November of the first urology year, residents are assigned to the freshmen medical students' anatomy class, a six week period during which time the students are dissecting the abdomen, pelvis and perineum. This six-week assignment consists of three, four-hour sessions per week, one hour of lecture followed by three hours of dissection. The residents attend the lectures and then serve as instructors, each with four medical students per cadaver. This basic science instruction, although time consuming, has proven to be very helpful as the residents progress to the more senior years.

**URO 2:** Second year urology residents are assigned to three four-month rotations; the LeBonheur Children's Hospital rotation, the MED Hospital rotation, and the Research rotation. For most of our residents, the **LeBonheur Children's Hospital** rotation represents the first direct exposure to pediatric patients since their pediatric experience as a medical student. Therefore, a significant amount of time is devoted to improve the residents' knowledge of the fundamentals of pediatric care. In conjunction with a URO-4 urology resident and the three full time pediatric urologists in our department, the second year urology resident is involved in the pre and post-operative care of pediatric urologic patients as well as the care of hospitalized pediatric urologic patients, most of who undergo diagnostic or therapeutic surgical procedures. The second year urology resident, under supervision, is responsible for patient care in the LeBonheur Hospital outpatient urologic clinic, and the Myelomeningocele Clinic. During the **MED Hospital** rotation, the resident must assume additional responsibility in regard to patient care (in-patient and out-patient) as well as build upon the knowledge and surgical skills established as a URO-1 resident. The resident is responsible for managing the service in conjunction with the URO-3 and URO-4 residents and the faculty chief of service. This is a very active rotation and demands a high level of performance. The URO-2 resident must demonstrate increasing surgical skills, especially in the specialty areas of anti-incontinence surgery, endourology, reconstructive surgery of the lower urinary tract and percutaneous renal surgery. This rotation markedly increases the URO-2 resident's decision making in regard to pre-operative, intra-operative and postoperative patient care. The **Research** rotation is a 4-month rotation that allows the resident to be involved with various aspects of urologic research. This is not protected time in that this resident still participates in weekly and weekend call as well as assists in other clinical duties as needed as determined by the Program Director. The goal however is for this resident to have enough daily exposure to basic science and clinical urologic research that scholarly activity in the form of publications and presentations at national meetings will be demonstrated.

**URO 3:** Third year urology residents spend four months each at the MED, Methodist University Hospital and the Veterans Administration Medical Center (Spinal Cord Injury/Stone Center). During each of these rotations, the resident has more increased responsibilities than in previous years and essentially functions as a chief resident. They maintain a close liaison with either a URO-4 resident and/or the training directors. They are responsible for training of junior residents on their service. The **MED** gives the URO-3 resident his/her first opportunity to function as a chief resident. It serves as a

precursor to the senior year. This resident manages the service and reports directly to the faculty chief of The MED. The resident is responsible for the surgical cases including all GU

traumas that occur at this location. Administrative skills, including delegation of work to junior residents, are developed on this rotation. On average The MED service has approximately 4 patients (2 patients per resident). The education received at The MED is vital to the training of our residents due to the unique exposure to GU trauma (both surgical and non-surgical management), complex reconstructive urology, invasive therapy for priapism, and other cases seen less at other rotations. A URO-4 level resident is available for guidance and assistance with administrative duties but supervision of the resident on all patients is the responsibility of the local training director. The **Methodist University Hospital** is a large hospital devoted to resident education as demonstrated by a recent merger of the Methodist Hospital and University of Tennessee. The URO-3 level resident maintains a close liaison with the URO-4 resident assigned to this rotation. All full time faculty as well as some clinical faculty admit patients to this facility. The URO-3 resident is assigned responsibility for certain pre, intra and postoperative management of the faculty's patients. This resident also participates in the care of a non-private service with an average urologic census of between 1-2 patients. There is also an outpatient urology non-private clinic, which is staffed by the resident under the supervision of the training director. This resident also has the unique opportunity to be assigned by the URO-4 level resident to assist in the patient care (mainly intra-operative and post operative care) of volunteer clinical faculty at other close by hospitals. This greatly enhances this level resident's operative experience. They are under the supervision of that clinical faculty during those cases.

The third and final rotation for third year urology residents is the **Veterans Administration Hospital Spinal Cord Injury Urology Stone Unit**. Urology at the VA Hospital occurs in an 18,000 square foot facility that houses eight patient exam rooms, resident offices, two minor procedure rooms, three cystoscopy rooms, each with fluoroscopy and video cystoscopy capability; videourodynamics, pre-op holding area and recovery room that are exclusively used by the urology service. Installation of the latest Dornier's lithotripter for ESWL was accomplished in July 2002. The unit provides services for the Spinal Cord Injury Hospital, patients with Neurogenic and calculus disease from the main VA Hospital, and serves as a referral center for VA Hospitals in the entire southeastern part of the United States. As a consequence, the facility is very busy with referred patients for ESWL and other operative procedures. It likewise is a central referring area for spinal cord injury patients in this region. The resident is responsible for the pre and post operative care of patients referred to this facility as well as those in the Spinal Cord Injury Hospital. The resident demonstrates proficiency for the performance of ESWL and other operative procedures as indicated on the stone patients as well as the diagnostic and therapeutic procedures as necessary on the spinal cord injury patients. During this time, the resident is under the supervision of the urology faculty at this facility.

**URO 4:** Fourth year urology residents are chief residents for four months each at Methodist University Hospital, Veterans Administration Hospital and LeBonheur Children's Hospital. All three of these rotations represent standard chief residencies. At **Methodist University Hospital**, the chief resident is responsible for organization of the service, both outpatient and in-patient. It is the chief resident's responsibility, under the supervision of the Program Director, to assign duties to the URO-3 resident, to organize the surgical schedule, to prepare for daily rounds with the training director and other appropriate faculty, to maintain a liaison with other relevant services, to arrange clinic coverage and to provide consultation if necessary to the trauma center at The MED. The chief resident at the **Veterans Administration Hospital** is likewise expected to organize the service and assign junior resident functions with the goal of an efficient management of the in-patient and outpatient services. The chief resident is under the direct supervision of the relevant training director during this four-month rotation. The final four-month rotation of the fourth urology year is at **LeBonheur Children's Hospital** as chief resident. In this position, the resident is responsible for organization of the pediatric urology service with supervision from the pediatric training director and is responsible for organization and staffing of the pediatric

urology clinics and for the preoperative and postoperative care of these patients. Operative procedures are performed under the supervision of the pediatric training director.