Introduction

The Urology Residency Training Program at Jackson Memorial Hospital/University of Miami Miller School of Medicine is a five-year training program consisting of one year of general surgery training followed by four years training in general urology and urologic subspecialties (reconstruction, endourology, urologic oncology and pediatric urology). The program accepts three residents per year. Our goals is to provide residents with a broad base of surgical education, to help them discover if they are most suited for a career in academia, private practice, or research, and to prepare them well for a productive and satisfying career whichever path they choose.

The UM/JMH Urology Residency Program was last reviewed by the ACGME in September of 2003 and was granted continued full accreditation in December of that year. Residents who complete our program will be fully eligible for board certification by the American Board of Urology.

Residency Program Structure Description

PGY-1 (General Surgery)

The Urology residents' first year in general surgery consists of one month rotations in trauma, urology, the intensive care unit, hepatobiliary/oncology/colon rectal surgery, transplantation (kidney and pancreas only), cardio thoracic surgery, radiology/pathology, VA general surgery, and in the surgical ER, and one two month rotation in pediatric surgery. These rotations give the resident experience in how to manage critically ill patients and provide the opportunity to learn basic surgical techniques. The general surgery year also introduces residents to the care of trauma patients and pediatric surgical patients as well as allowing the residents to become acclimated to the complex workings of Jackson Memorial Hospital

URO-1:

Goals and Objectives:

1. To learn to master endoscopic procedures.
2. To learn to master minor open urologic procedures.
3. To learn the surgical techniques necessary for the more complex major cases by observing a large volume of these procedures.
4. To begin to master reading Urodynamic studies.
5. To begin understanding the importance of continuity of care in order to optimize patient management.
6. To master the history and physical in the patient with a urologic diagnosis.
7. To master the assembling of pertinent information as it relates to the making of a proper diagnosis.

The three residents at this level spend two to four months at each of the three participating institutions (JMH, VAMC, and Cedars). The content, duties, and responsibilities on all these services are very similar. The URO-1 is responsible for initial admission work-ups including examination, evaluation, and, with the aid of his more senior residents and the attending, formulation of a differential diagnosis and management plan. For emergency admissions and admissions during 'off-duty' hours, the URO-1 on call performs the initial admissions work-up and examination, and, in conjunction with the most senior resident on call and the attending on call for emergencies, helps to make the diagnosis. Whenever possible, the patients are followed in one of the three departmental outpatient clinic settings by residents involved in their inpatient management. The URO-1 concentrates on learning endoscopic procedures to the point of being
able to perform them independently. The resident also learns the procedures for minor open urologic cases (i.e., hydrocele, orchietomy, pelvic lymph node dissection, and circumcision) and, on a gradual basis, begins to perform these with assistance. As a part of the first year of training, the URO-1 begins to learn the surgical techniques of the more complex major cases through attendance in the Operating Room.

The URO-1 residents have the primary responsibility for the initial work-up, initial evaluation and initial differential diagnosis for scheduled admissions on their service and, as stated above, for emergency admissions and consults when on-call. Call is taken from home every third night. Nevertheless, all decisions formulated on behalf of the patient which relate to selection of therapy and management of care are done in collaboration with the more senior residents and the responsible attending on-call for the service.

CMC (4 months): At Cedars Medical Center, the institution where adult private patients are treated, the attendings and residents utilize at least one available open operating room Mondays through Thursdays, and an endoscopic room. The URO-1 residents rotate on that service for four months primarily learning the finer points of Endoscopy and are exposed to both the minor and major procedures associated with subspecialty areas: Endourology/Laparoscopy, Erectile Dysfunction, Female Urology and Urologic Oncology, from the attendings, the chief resident and the fellows.

JMH (4 months: Adult service): When rotating on the adult service at Jackson Memorial Hospital, the residents are exposed to ESWL, trauma, endourology, and other general urologic cases. Two cystoscopic rooms are operative on a daily basis Monday through Thursday. Two open rooms are assigned to the Department of Urology on Tuesdays and one open room is available on Thursdays. The nurse liaisons at JMH work very closely with the residents, attendings, and Department of Urology surgical schedulers, in a systems-based practice manner, to help coordinate the use of these operating rooms. Presently, the Urology Service is the largest consumer of Operating Room time and, consequently, often utilizes at least one extra open room each day. Because of the unique nature of JMH and Medicare requirements, both private and non-private patients are cared for side-by-side on the wards as well as supervised equally by attending faculty.

JMH (2 months: Pediatric service): On the two month Pediatric Urology rotation, the URO-1 resident often has the opportunity of being the ‘surgeon of record’ as he works with the Childrens’ Urology Associate physicians at both JMH and MCH concurrently, focusing primarily on surgical technique and on mastering pediatric reconstructive surgery. In addition, the resident learns the initial evaluation of the pediatric patient and how to successfully interact with the patients’ families.

VAMC (2 months): The URO-1 resident rotates two months at the V.A. and operates with the attendings and more senior residents on Monday, Wednesday and Thursday mornings and all day Tuesdays at which time they generally utilize one cystoscopy room and one open room. On the V.A.M.C. service, which is a resident run service closely supervised by departmental attendings, the URO-1 has the opportunity to work closely on surgical technique and is carefully taught by the senior level residents. Because Monday mornings are devoted to Erectile Dysfunction, the first year Urology resident becomes quite familiar with the surgical and medical management of these patients. In addition, because of the outstanding Voiding Dysfunction Center directed by Dr. Gousse, the URO-1 resident, while on the service, has the opportunity for individualized instruction on Urodynamics at least one half-day per week (Monday afternoon). Mr. David Weinstein, a urodynamacist, nationally recognized for his expertise, provides technical teaching on the artifacts of the urodynamic study.

The URO-1 serves as part of the team of residents that man all the outpatient clinics at the VAMC, JMH, and in the private outpatient clinic at PAC. At the VAMC outpatient clinic, which is
scheduled for Monday, Wednesday and Thursday afternoons and all day on Friday, the URO-1 sees patients and performs the majority of diagnostic cystoscopies.

All residents currently on the Cedars and the Jackson rotations see patients in the outpatient clinic at Jackson all day Friday. Here facilities are available for cystoscopic examinations under local anesthesia and for vasectomies---both of which the URO-1 learns to perform. On the Cedars rotation, the URO-1 resident is expected to see patients alongside the attendings in the private outpatient setting at PAC. The URO-1 resident is able to observe the continuity of care of patients for whom they participate in their diagnosis, surgical management, and postoperative care.

Depending on the supervising residents and his/her skill, the URO-1, at the close of the first year of urology training is expected to be 1) skilled at performing most endoscopic cases and many of the minor procedures; 2) comfortable with treating patients in emergency and outpatient environments; 3) familiar with the surgical techniques necessary for most of the major urologic cases; and 4) experienced with the pre and postoperative care of the urologic patient.

Because of the on-call responsibilities and the subsequent interdependent relationship which develops from working with (See 11d) the other URO-1, URO-2, and Chief residents, the URO-1 residents become extremely knowledgeable about all the patients in the three major affiliated hospitals.

URO-2:

Goals and Objectives:

- To gain research skills.
- To understand and function as the 'consult' resident.
- To attempt to master the more complex surgical procedures.
- To continue to improve endoscopic and resection skills (i.e., TURP, TURBT).
- To master the transrectal ultrasound biopsy technique.
- To master the reading of a Urodynamic study.

Basic Science Research/Elective (4 months): The URO-2 resident has a four month basic science research/elective rotation. Throughout the year during the Research Conference, the faculty and residents have the opportunity to share information about current research being done in the department and in collaboration with other investigators. Because the residents must complete a basic science research project and are also encouraged to perform clinical research, this information is extremely helpful in deciding the topic(s) of their research in the URO-2 year.

As part of the research experience, the resident is asked to begin by developing a study design. In preparation for the research project, the resident should review the pertinent literature and be knowledgeable about the germane methodologies and materials needed to complete the project. All work completed is done under closely monitored supervision of a faculty member. Throughout the four months, the resident reports on his progress at the monthly Research Conference. All the faculty and residents have the opportunity of critiquing the progress of the work. A resident cannot successfully complete his residency without writing a paper of publishable quality to be sent for peer review. Because of that requirement, the resident has the opportunity to examine the quality of available literature, to work through the research process and to work on the development of a thesis through the writing of an article.

The resident is to spend at least 50% of each work week on his or her basic science research project, with no more than 30% of the workweek devoted to clinical responsibilities. We
encourage residents to use any time remaining after the performance of these duties for clinical research activities.

The research resident is also responsible for: participating in Pediatric Urology clinic from 8 AM to 1 PM on Tuesdays; JMH outpatient clinic 9 AM to 1 PM on Fridays; and Monday and Friday clinics at the VA or when a resident on the VA rotation is on vacation or out of town. He or she also takes 3 at-home call, assists at JMH when there are more cases than the consult resident can handle, and attends all regularly scheduled conferences.

The resident rotating through consult/elective rotation has the responsibilities of organizing the monthly Journal Club, of making sure the sign-in sheet for conferences is signed by all present at the conferences, and of taking minutes at both the Quality Assurance and M & M conferences. Sign-in sheets and notes from M & M conference are required by JMH and must be given to the Residency Coordinator the day after conference.

Research Elective: Goals, Objectives and Structure

GOALS AND OBJECTIVES: The following is how the faculty has defined the elective and its expectations of URO-2 residents.

Research Rotation Guidelines

Residents rotating through the Research Elective URO-2 rotation shall select one of the following basic science laboratories for their research project:

- Dr. Vinata Lokeshwar (Urologic Oncology, Bladder and Prostate Diseases)
- Dr. Bal Lokeshwar (Urologic Oncology, Bladder and Prostate Diseases)

The requirements are as follows:

1. After having met with the selected mentor(S), the resident shall write a preliminary draft of the project(s) at least 3 months prior to the research elective. In addition, the resident shall arrange an appointment with the Chairman of the department or the Program Director in order to discuss the feasibility and funding of the project(s).

2. Two (2) months prior to the initiation of the selected project, the resident should meet with the mentor(s) and a detailed research proposal should be presented to the Chairman followed by a 15 minutes presentation to the faculty and residents during one of the scheduled conferences.

3. During the 4-months elective, the research resident shall meet with the Chairman monthly (the last Friday of each month) and submit a written progress report. Three (months) after the 4-month rotation, the resident shall write a complete referenced final progress report, identify areas where more work (if any) is needed which will then be submitted to the Chairman, Mentor(s), and the Program Director. The resident shall orally defend the project at a research conference. Authorship on the final manuscript is at the discretion of the mentor(s). The resident's manuscript must either be published or be under review in a peer-reviewed journal before the resident graduates.

4. Residents are encouraged to be involved in clinical/chart review research throughout their residency. It is permissible for clinical research to be performed concurrent with laboratory research upon written approval of the Laboratory Mentor. Residents are encouraged to present their clinical research findings at our scheduled conferences.

Questions addressed in research proposal and completed for each possible area of interest of research the resident is considering:
During the clinical rotations, the URO-2 resident spends four months at JMH and four months at Cedars. During this year, the resident is given increasing responsibility for patient care.

JMH (4 months): The URO-2 at JMH (the hospital with the largest consult service) will have the opportunity of conferring each day with the assigned faculty member on call for help in designing a management plan for those patients on whom the resident has consulted. As a consult resident, the URO-2 will be responsible for the work-up, evaluation and differential diagnosis of those patients for whom he is asked to consult for the JMH clinic patients. In addition, the residents may first assist on most of the major cases as well as continue to perform as primary surgeon or teaching assistant on most endoscopic and minor surgical cases. The 'consult' resident has the primary responsibility for interacting with other departments or divisions in each institution from 7:00 a.m. until 5:00 p.m., at which time the responsibility is then shifted to the resident who is taking night or week-end call. Treatment or management of care for that patient is performed by the 'consult' resident with the supervision of the Chief Resident on the hospital service and the attending from the Department of Urology assigned to monitor the consults. The 'consult' resident follows that patient to the conclusion of the problem. The 'consult' resident also scrubs on all trauma cases where there has been injury to the genitourinary system. The URO-2 residents will also be responsible for performing the ultrasound guided biopsies and urodynamic studies at JMH.

CMC (4 months): The URO-2 resident rotating at Cedars will have the following responsibilities, in addition to his/her responsibilities in the operating room, on the floor, and in the private outpatient clinic at PAC, to: attend Monday morning clinic at the VAMC and read the urodynamic studies with Dr. Gousse on Monday afternoon; attend the full-day Friday clinic at the VAMC; attend Tuesday morning clinic at PAC with Dr. Gousse; and help to cover the VA service when a VA resident is on vacation. The Division of Endourology has full access to the da Vinci robot at CMC which allows faculty to perform a broad spectrum of laparoscopic cases.

URO-2 residents have the responsibility of the 'consult' service as well as covering emergencies when on-call every third night for both Cedars and VAMC. On the night the URO-2 takes call, he/she also confers with the URO-1 resident on any problems which arise at Jackson before calling a Chief or an attending.

The following is a schema of what is expected of the 'consult resident':

1. All consults should be seen by the "Consult Resident". These patients must be followed daily, with notes written, until discharge. The "Consult Resident" is responsible for seeing all consults before 5:00 p.m. Any consults requested after 5:00 p.m., will be assigned to the URO-2 on call. All consults must be seen preferably less than 24 hours after notification. All consults are to be discussed with the Chief Resident and the attending covering the service. All patients seen in consult must have a consultation report filled out. Here are guidelines for writing the consult.
   o Review chart
   o Interview and examine patient
Fill out consultation report and write progress note
2. Include statement of why patient was admitted to the hospital
3. Outline previous urologic history in chronological order followed by the previous urological problem
   - Urologic examination
   - Record results of appropriate tests and x-rays
   - Write your differential diagnosis
   - Plans or recommendations should be clearly outlined. If unsure indicate “will discuss with attending”.
   - Discuss case with Chief Resident/attending. Only order tests approved by them.

URO-3:

Goals and Objectives

1. To master Pediatric Urologic procedures.
2. To enhance their knowledge of renal physiology and vascular surgery skills while on Transplantation.
3. To continue to help manage the consult service.
4. To begin serving as primary surgeon on many of the major cases.
5. To begin to act as the Teaching Assistant to junior residents on the minor open and endoscopic cases.

This year also offers a mixture of rotations.

JMH-Transplantation (2 months): On the Transplantation service, the URO-3 is primarily responsible for assisting in all the kidney transplants and harvesting the cadaveric organs, for any donor nephrectomies and, oftentimes, the management of the patient during the perioperative period. The Transplant rotation enhances the resident’s knowledge of renal physiology, his skills in vascular surgery, and his exposure to large renal tumors with vena caval involvement performed by the urologic oncologists and one of the Kidney-Pancreas Transplant surgeons (a Boarded Urologist). During this rotation, the URO-3 is a member of the Transplant team which includes General Surgery residents, the Transplantation fellow, and the Transplantation faculty.

JMH (Pediatrics: 4 months): For four months of this third year, the URO-3 resident is assigned solely to the Pediatric Urology service. The rotation includes 1) a substantial and varied surgical experience; 2) training in inpatient care and in outpatient services at Jackson; 3) private outpatient clinic and inpatient services at MCH; 4) monitoring and reading the Urodynamic studies performed on pediatric patients; 5) participating in the monthly Myelomeningocele clinic; 6) attending the weekly Pediatric Nephrology Conference; and 7) helping to organize the monthly Uro-Nephrology pediatric conference in the Department. The rotation combines three days of operative experience with at least two-half days of outpatient exposure. One half day is spent doing Urodynamic studies. When the URO-3 resident rotates on the Pediatric Urology service for 2 months without a URO-1 resident, he is responsible for total patient care including the work-up for admission, initial evaluation and diagnosis of the pediatric patient. Selection of therapy and management of complications are decided in cooperation with the attending. If there is a URO-1 rotating on the Pediatric Urology service, the junior resident will cooperate with the URO-3 resident and share the responsibility of completing the initial diagnosis and evaluation information.

JMH (4 months) and VAMC (2 months): On both rotations, the residents may act as the "consult" resident on the team and/or serve as either the first assistant on most major cases or the 'surgeon of record' depending on their skill level. The URO-3 also assists the more junior residents in all their activities.
URO-4:

Goals and Objectives:

1. To master the ability to organize and manage the patient’s surgical treatment, as well as his inpatient and outpatient care.
2. To master the ability to help organize the running of an efficient service.
3. To fine-tune surgical technique.
4. To assume the role of primary surgeon or of teaching assistant for all surgical cases.

In the last year of his training, the URO-4 acts as the administrative Chief Resident for four months in each of the three adult hospital settings. At this level of training, the senior resident is responsible for coordinating and monitoring all patient care activities on the inpatient services, as well as supervising the activities of the more junior residents there and in the outpatient clinic. As the Chief Resident in each institution, the URO-4 reports daily to the Local Training Director on the progress of the service and is responsible for arranging the surgical schedule. The Chief Resident performs or first assists most major operative cases and supervises, along with the attending, the more junior residents on all minor and endoscopic cases.

The URO-4 (Chief Resident), supervised by the attendings, has the responsibility of overseeing the junior resident in the development of his/her surgical skills and in the creation of comprehensive treatment plans for the daily management of patient care. Each Chief is the administrator of his/her service and, in that role, ensures that all the cases are covered adequately, that patients are treated with the highest standard and the most compassionate level of care, and that an educationally charged environment is provided for the junior residents and medical students. As the administrative chief, he works integrally with the nurse liaisons at both JMH and VAMC to ensure systems-based practices and to enhance his own skills in working as part of the case management “team”.

The surgeon for each case on the service is designated by the Chief Resident. The URO-4 has the option of performing any cases of his choosing under the guidance of the Local Training Director. No unfunded case is to be posted unless the Chief Resident has knowledge of it, an attending has agreed to supervise, and, once performed, is certain that the case is dictated within 24 hours of the surgery. The Chief Residents, with the help of the Residency Coordinator, are to make certain that all the residents on their service are current with the ACGME surgical log.