Urology Training Program

Mission Statement

PROGRAM MISSION STATEMENT OF THE DEPARTMENT OF UROLOGY

To deliver compassionate, state-of-the-art, individualized urological care through our commitment to:

- The practice of evidence-based medicine
- Pioneering of teaching methods that guide and inspire the next generation of leaders in Urology
- Interdisciplinary research spanning basic science and engineering that answers questions of major significance
INTRODUCTION/EXPLANATION OF THE PROGRAM POLICY MANUAL SPECIFIC TO THE DEPARTMENT OF UROLOGY

The information contained in this Policy Manual pertains to all residents and fellows in the Urology department programs except as otherwise identified in the Program Policy Manual.

For information that applies to all residents and fellows in a residency/fellowship training program at the University of Minnesota, please consult the Institution Manual. Information in the Institution Manual takes precedence over that in the Program Manual in cases where there is conflict.

All information outlined in this manual is subject to change.
# TABLE OF CONTENTS

## INTRODUCTION/EXPLANATION OF THE PROGRAM POLICY MANUAL SPECIFIC TO THE DEPARTMENT OF UROLOGY

## DEPARTMENT AND PROGRAM MISSION STATEMENTS

*Information outlined in this manual is subject to change.*

### SECTION 1 - STUDENT SERVICES
- Campus Mail
- E-mail and Internet Access
- HIPAA Training
- University Pagers
- Tuition and Fees

### SECTION 2 - BENEFITS
- Stipends
- Vacations
- Sick Leave
- Professional and Academic Leave (includes conferences and CME)
- Job Interview
- Parental Leave
- Maternity Leave
- Paternity Leave
- Policy in Effect for Leave and Satisfying Completion of Program
- Absence Coverage
- Workers Compensation
- Health and Dental Insurance Coverage
- Long-Term Disability Insurance
- Short-Term Disability Insurance
- Professional Liability Insurance
- Life Insurance
- Meal Tickets/Food Services
- Laundry Service
- Parking

### SECTION 3 - Institution Responsibilities

### SECTION 4 - DISCIPLINARY AND GRIEVANCE PROCEDURES
- Grievance Procedure and Due Process

### SECTION 5 - GENERAL POLICIES AND PROCEDURES
- Residency/Fellowship Program Curriculum
Program Goals and Objectives

Specific Goals by Year of Residency and Site

Conference Curriculum
  - Description of Core Curriculum Conference
  - Description of Pediatric Conference
  - Description of Uroradiology Conference
  - Description of Uropathology Conference
  - Description of Morbidity and Mortality Conference
  - Description of Journal Club
  - Description of Grand Rounds
  - Minnesota Urologic Society (MUS)

Departmental Conference Attendance Policy

Research Projects

Scholarly Activity

Training/Graduation Requirements

ACGME Competencies

ACGME Evaluations

Evaluation System
  - Methodology
  - Resident Evaluation Committee
  - Periodic Resident/Program Director Meeting

Duty Hours

On Call Schedules

On Call Rooms

Rotation Schedule
  - Description of Educational Program Sites

Support Services

Laboratory/Pathology/Radiology Services

Medical Records

Security/Safety

Moonlighting

Supervision
  - Resident Advisor Program

Graded Responsibility

Monitoring of Resident Well-Being

Resident Responsibilities
  - Guidelines for Professional Dress
  - Patient Care
  - Answering Pages
  - Resident Surgical Case Log
  - Handoff Communication

Goals and Objectives for Teaching Medical Students

SECTION 6 - ADMINISTRATION

Urology Faculty/Administration Phone/Pager List

Residency Program Governance
ATTACHED ADDENDUMS:
Urologic Oncology Objective for Clinic with Konety and Warlick………..Attachment A
Kidney Stone Clinic ..................................................................................Attachment B
Objectives for the Laparoscopic Surgery with Anderson......................Attachment C
Objectives for Urology Clinic...............................................................Attachment D
Objectives for Urology Clinic with Sweet............................................Attachment E
Andrology Clinic Objectives .................................................................Attachment F
Objectives for Incontinence, NeuroUrology, and Pelvic Floor
Reconstruction Clinic with Nakib............................................................Attachment G
Reconstructive Urology Clinic with Elliott............................................Attachment H
Pediatric Urology Clinic..........................................................................Attachment I
Schwartz Contract with the Residents....................................................Attachment J
Clinical Competency Evaluation..........................................................Attachment K
Residency Vacation Request Form........................................................Attachment L

Signature/Receipt of the Program Manual

Section 1
Student Services

CAMPUS MAIL:

Mailboxes have been assigned to you. They are located in the resident room on the 5th floor of the Mayo Building. You will have access to this room 24 hours per day. The code to the room will be provided. The mail will not be forwarded to your homes. Therefore, to keep up on departmental news and educational events it is essential that you pick up your mail at least 3 - 4 times per month. These boxes are secure. Your campus mail address is MMC 394, Mayo Building; 420 Delaware Street S.E.; Minneapolis, MN 55455.

E-MAIL AND INTERNET ACCESS:

All residents and fellows must use their University of Minnesota e-mail account. Your Internet and e-mail accounts at the University of Minnesota can be set up once you are registered as a student. Call the e-mail helpline at 612-626-4276 or go to the Computer Information Services Office in Room 190 of Shephard Labs, 100 Union St. to set up a password and discuss software to access e-mail from your home. You will need to bring a photo I.D. with you (preferably your U card). The software can be purchased for $6.00 and comes in a variety of formats depending on the type of computer and software you have. You may call the AHC Helpline at 612-626-5100 to initially set up your x500 log on (you will receive this from AHC Information Services) and password, which is your key to most of the applications you will need to learn. Urology web address: www.urology.umn.edu  GME web address: www.med.umn.edu/gme

HIPAA TRAINING:

To prepare for compliance with HIPAA privacy and regulation, every University of Minnesota student, faculty member, researcher, and staff person who may have access to protected health information will complete one or more online courses about privacy and data security. Online HIPAA training can be accessed at www.myu.umn.edu.

PAGERS:

For first year residents, please follow the Department of Surgery policy and procedure(s) for your pager. For residents in the Department of Urology, you will be assigned a pager and pager number which will be used over the next 4 years. You will keep the same pager number even when assigned to an outside facility. For malfunctioning pagers, please contact Lana in the Communications Office at (952) 924-5860. If your pager is not returned at the end of your training you will be assessed a fine of $170.00 to cover the expense. New batteries can be obtained from the Department of Urology administrative center.
TUITION AND FEES: Please note that tuition and fees are being waived at this time. Trainees enrolled in Graduate School do not pay tuition and fees.

Section 2
Benefits

STIPENDS

Resident/Fellow stipends are determined each year. Your annual stipend amount will be sent to you each year with your Graduate Medical Education Program Residency Agreement. Residents and Fellows will receive a paycheck every other week. Payroll dates are documented in the Institution Manual. The Department of Urology receives the paychecks from payroll every other Wednesday and mails them to the residents or fellows home or places them in their box within the Department. You may also opt for direct deposit, which is highly encouraged because of the potential of lost/missing or misdirected mailings. Paychecks are credited to your bank account on the morning the paychecks are delivered to the Department Business Office.

** Please be aware that tuition and other fees are added to your base salary (annual stipend), then taxed and deducted because the tuition payment and other fees are considered taxable income.

For problems, questions, or concerns, please contact Kirk Skogen: 612-625-3954 in payroll.

VACATION/LEAVE POLICY

Residents are allowed **21 days** of vacation leave (a maximum of **15 weekdays**) per year. Professional/Educational leave is **5 weekdays** per year. Job interviews are considered professional/educational leave. Parental leave is covered in the section below.

Leave must be scheduled at least one month in advance and is on a first come, first served basis. To schedule leave, please email Chrissy Reding at hillx137@umn.edu with the days you are requesting off. The request will be reviewed and sent to the Site Director affected by the vacation and to the Program Director for final approval.

Please note the following restrictions to leave:

- Because Urology is a small service, **no more than two residents may be gone at the same time**. This includes all potential reasons for absence such as vacation, maternity/paternity leave, educational leave, interviews, and testing dates. Exceptions to this includes: the week between Christmas and New Years, required conferences, and during the AUA meeting, assuming the service is slow and adequate coverage is provided; or if more than two residents are gone for illness or maternity leave.
- If two residents are gone at the same time, they cannot both be in the same rotation. Hennepin County, Veterans Affairs Hospital, and University rotations are considered separate rotations. Southdale and Pediatrics rotation are considered part of the University rotation for leave purposes.
- **No more than a total of 10 weekdays can be taken as leave from any one program site per academic year.**
- **No leave will be allowed the last two weeks of June and the first two weeks of July.** The only exception to this are Chief Residents who may include this time as part of their vacation if they meet specific criteria: this
includes approval by both the Program and Site Director, proof of ability to fulfill American Board of Urology/RRC requirements, as well as participation in graduation activities as established by the training program. Otherwise, Chief Residents are expected to be working through June 30th.

- No leave time can be taken during the MUS Spring Seminar or on any day with a visiting professor presentation and/or event.
- No leave time can be taken during the week before or during the departmental In-service examination. No leave time will be granted during the Chief Board Review Course and during the PGY2 Basic Science Conference other than for residents attending these courses.
- No vacation time will be granted during the North Central AUA meeting and during the AUA meeting until one month prior to the dates due to the large number of residents attending these conferences for educational purposes.
- The Department recognizes the need for residents to schedule interviews for post-residency practice or academic positions. Interview time must be scheduled to create minimal disruption to the resident schedule. Each resident who needs to go for an interview must make arrangements with their program site director and the residency program director to take time off to interview.
- Leave days do not roll over into the next academic year.
- Total number of days off (e.g. vacation, meetings, courses, etc) must be within the American Board of Urology guidelines.
- Any other rare exceptions need approval by both the Site Director and Program Director.
- Mandatory away courses: Basic Science Conference for Urology Residents (Virginia basic science course): PGY 2s, Urology Board Review course: Chief residents. For these courses, no paper needs to be submitted for publication and these courses do not count towards the five day allowance per year for meetings.
- For educational/professional leave, the department will fund attendance and travel to NCS and AUA meeting for residents with accepted posters and/or presentations.
- Educational/professional leave may be used to attend other meetings if a poster/presentation is accepted and there is a sponsoring faculty member. The source of funding must be identified prior to submission of the abstract to the meeting. **DO NOT MAKE ANY TRAVEL ARRANGEMENTS PRIOR TO HAVING APPROVAL FROM THE PROGRAM DIRECTOR.** If educational/professional leave is used to attend a meeting, a written manuscript (ready for submission and approved by the faculty member sponsoring the research) must be completed and submitted prior to receiving reimbursement for meeting expenses. If this is not done, reimbursement for the trip and future educational leave requests will be denied.
- Residents will only be reimbursed up to the amount allowable under University and/or Departmental Guidelines.
- Additional review or educational courses may be attended without acceptance of a manuscript or poster. However, this will NOT be considered education/professional leave. It will count as vacation leave time. It will not be possible to be reimbursed for this type of leave/meeting attendance.

**SICK LEAVE**

In the event of illness, the affected resident is personally responsible for notifying the faculty member of the affected clinic(s) and the Program Directors office as soon as the resident knows that the illness will cause an absence from clinical responsibilities. Sick leave will be approved only for legitimate illnesses. A physician’s note may be requested to support the resident request for sick leave. If the above policy is not followed, the absence will be counted as vacation time. Sick days will be logged by the Program Director and, if determined to be excessive, will result in loss of vacation days and/or the requirement to make up time at the end of residency training.

**Please note that it is the responsibility of the resident, if scheduled to give lectures, take call, or other duties, to arrange resident coverage in the event of illness.**
PARENTAL LEAVE

- **Maternity Leave:** (Please refer to the Medical School Institution Manual). In addition, the Family Medical Leave Act (FMLA) in the state of Minnesota allows residents to take 6 weeks paid maternity leave upon the birth of the child.

- **Paternity Leave:** (Please refer to the Medical School Institution Manual). In addition, the Family Medical Leave Act (FMLA) in the state of Minnesota allows residents to take two weeks paid paternity leave upon the birth of their child. It is expected that a three month advance warning be given to the education coordinator and an approved leave sheet will need to be signed by the Program Director prior to scheduling paternity leave.

POLICY IN EFFECT FOR LEAVE AND SATISFYING COMPLETION OF PROGRAM

In addition to the policy regarding Family and Medical Leave in the Medical School Institution Manual, the program must follow guidelines set forth by the Accreditation Council on Graduate Medical Education (ACGME) and the American Board of Urology (ABU). The following policies apply:

As mandated by the ACGME, a resident must have no more than 10% time away from the residency training program overall. This 10% will include vacation, leave, and conference days away. If you are over the 10% you will need to make this time up at the end of your residency and your completion date will be extended. The ACGME will need to be notified and we will need their approval so it is imperative that you find out well in advance before your leave begins.

Per ABU policy, a resident must work 46 weeks each year of residency; that is one year of credit **must** include at least 46 weeks of full-time urologic education. If a circumstance occurs in which a resident does not work the required 46 weeks in one year, the program director must submit a plan to the ABU for approval on how the training will be made up, which may require an extension of residency.

ABSENCE COVERAGE

Although residents are assigned to one hospital site at a given time, the Training Program sites are fully integrated and residents may be pulled from one site to cover another when the necessity arises. **To facilitate such changes, all residents must be available on pager from 7:00 am to 5:00 pm-Monday through Friday.**

In the event of prolonged absences (LOA, medical leave, etc.), the chief resident responsible for rotation schedules and the Program Director will work out a coverage schedule between hospitals.

WORKERS COMPENSATION BENEFITS

When a resident or fellow is injured during training, the resident or fellow MUST take immediate steps to report the injury to the University. If this process is not followed, workers compensation benefits could be denied or delayed. Please follow the procedures outlined in the Institution Policy Manual. **YOU MUST COMPLETE THE UNIVERSITY OF MINNESOTA WORKERS COMPENSATION EMPLOYEE INCIDENT REPORT; IT DOES NOT MATTER WHERE YOU WERE INJURED (OTHER SITES), THE U OF M FORM NEEDS TO BE COMPLETED!** The Incident Report is located on the Internet at [http://www.ppolicy.umn.edu/Policies/hr/Benefits/WORKERSCOMP.html#300](http://www.ppolicy.umn.edu/Policies/hr/Benefits/WORKERSCOMP.html#300) and this should then be sent to: Program Director
If you receive a bill for the injury, please send this to the above address. However, we must have the submitted copy of the Incident Report before getting the bill paid.

**HEALTH AND DENTAL INSURANCE COVERAGE**

Refer to the Institution Policy Manual. For information and questions you can contact please go to the Office of Student Health Benefits website [http://www.shb.umn.edu](http://www.shb.umn.edu).

**LONG-TERM DISABILITY INSURANCE**

Refer to the Institution Policy Manual. For information and questions you can contact please go to the Office of Student Health Benefits website [http://www.shb.umn.edu](http://www.shb.umn.edu).

**SHORT-TERM DISABILITY INSURANCE**

Refer to the Institution Policy Manual. For information and questions you can contact please go to the Office of Student Health Benefits website [http://www.shb.umn.edu](http://www.shb.umn.edu).

**PROFESSIONAL LIABILITY INSURANCE**

Refer to the Institution Policy Manual. For information and questions you can contact Teri Wolner at 612-625-3926.

**LIFE INSURANCE**

Refer to the Institution Policy Manual. For information and questions you can contact please go to the Office of Student Health Benefits website [http://www.shb.umn.edu](http://www.shb.umn.edu).

**MEAL TICKETS/FOOD SERVICES**

**UMMC/FVSH**

- Each resident will receive a meal card at the start of the academic year. The dollar amount on each card will be determined by the number of on-call months designated to the resident.
- ID Badge Requirement – Residents and fellows are encouraged to have a Fairview ID badge visible and present in order to obtain on-call meals.
- Bulk Purchase Limitation – Bulk purchases (i.e…extra sodas/waters, bags of candy) are not allowed. Limit of 3 bottles and one half pound of candy or snacks may be purchased at one time.
- Sharing Restriction – This privilege is for the resident and/or fellow use in the hospital and may not be shared with medical students, families, or other hospital staff.
- Each resident and/or fellow eligible for meal card privileges must sign the statement of understanding, in order to receive their meal card for the academic year.
• Non-compliance with the UMMC Meal Card Policy may result in short-term suspension of meal card privileges or termination of privileges. The Vice President of Medical Affairs at UMMC reserves the right to suspend or terminate meal card privileges at any time, without notice.
• Please forward all questions regarding meal cards at UMMC to the UMMC GME Office at 612-273-7482.

**HCMC**
• Use your HCMC ID badge at all times to purchase food in the cafeteria.
• Bulk purchases are not allowed. This privilege is for the residents’ private use in the hospital and may not be shared with medical student, families, hospital staff or taken outside the hospital.
• Meal Allowance – Residents on a non-call rotation will receive $40 per month; residents on a call rotation will receive $100.

**LAUNDRY SERVICE**

Soiled coats may be dropped off, one time per month, and will be able to be picked up one week after drop off. We need to be notified ahead of time of drop off to arrange a pick up date and time with the cleaner. Please contact the education coordinator (612) 625-8364 for this.

**PARKING**

**UMMC**
The Department of Urology provides contract parking for residents when on service at UMMC. Parking cards at UMMC are service and resident-level designated. It is the resident’s responsibility to turn the parking cards back in when your rotation at UMMC is complete.

When not on service at UMMC, parking is provided for you in the Washington Avenue Ramp when attending conferences. A parking stamp can be obtained from the education office to validate your parking ticket.

**HCMC**
Free parking is provided, however, there is a $50.00 deposit fee for your parking card that will be refunded when you turn your card in.

**MVAHCS**
Your ID badge will serve as your access card to parking.

*Children’s Hospital*
There is a $20.00 CASH (no checks please) deposit required for the parking card. Your $20.00 will be returned to you at the completion of your rotation, when you surrender the card to the Med Ed office. Park in the BLUE ramp located across from United Hospital entrance and use only the Sherman St. entrance, as opposed to the Smith Avenue entrance. Please contact the Medical Education Office with any questions at 651-220-6130.

**FVSH**
When you begin your rotation, stop into the parking office for your parking access pass.
Section 3
Institutional Responsibilities

Section 4
Disciplinary and Grievance Procedures

APPEAL PROCESS:

A resident may exercise the right to appeal any decision regarding plans for non-renewal of contract or dismissal from the program. This process is outlined in the resident contract as well as the Institution Policy Manual. In such a case the Department of Urology will carefully follow the University of Minnesota School of Medicine appeal guidelines.
Section 5
General Policies and Procedures

RESIDENCY/FELLOWSHIP PROGRAM CURRICULUM

Each resident will have a full understanding of each of the topics below before completing their residency. The resident will be expected to answer questions regarding each topic during rounds, conferences, in surgery and on the yearly In-service exam. The resident will learn about each of the topics through the residency education program during rounds, in surgery and through self study. If the resident has any difficulty understanding the topics below, they will discuss the problem with their advisor and additional courses of study will be instituted.

1. Anatomy of the Genitourinary Tract
   Adrenals
   Kidneys
   Calices, Renal Pelvis, and Ureter
   Bladder
   Prostate Gland
   Seminal Vesicles
   Spermatic Cord
   Epididymis
   Testis
   Scrotum
   Penis and Male Urethra
   Female Urethra

2. Embryology of the Genitourinary System
   Nephric System - anomalies of the nephric system
   Vesicourethral Unit - prostate and anomalies of the vesicourethral unit
   Gonads and gonadal anomalies
   Genital Duct System - male and female and anomalies of the gonadal duct system
   External Genitalia - male and female and anomalies of the external genitalia

3. Symptoms of disorders of the genitourinary tract
   Systematic manifestations
   Local and referred pain
   Gastrointestinal symptoms of urologic diseases
   Symptoms related to the act of urination
   Other objective manifestations
   Complaints related to sexual problems

4. Physical examination of the genitourinary tract
   Examination of the kidneys and bladder
   Examination of the male external male genitalia - penis, scrotum, testis, epididymis, spermatic cord and vas deferens, testicular tunics and adnexa
   Vaginal examination
Rectal examination of the male - sphincter and lower rectum, prostate, and seminal vesicles
Lymph nodes
Neurologic examination

5. Urologic laboratory examination
   Examination of urine
   Examination of urethral discharge and vaginal exudate
   Renal function tests
   Examination of blood, serum, and plasma
   Examination of semen

6. Radiology of the Urinary Tract
   Radiography
   Sonography (including transrectal ultrasound)
   CT Scanning (Computed Body Tomography)
   Magnetic Resonance Imaging and comparison of imaging methods

7. Vascular interventional radiology
   Transcatheter embolization of renal cell carcinoma
   Transcatheter embolization of bleeding sites, arteriovenous malformations and fistulas of the kidneys
   Transcatheter embolization in the management of intractable hemorrhage from the pelvis and bladder
   Transluminal angioplasty

8. Percutaneous endourology and ureterorenoscopy
   Imaging and puncturing techniques
   Antegrade Pyelography and Pressure/Perfusion studies
   Percutaneous catheter placement
   Perfusion-chemolysis of renal stones
   Endoscopic intrarenal instrumentation
   Percutaneous aspiration and biopsy
   Ureterorenoscopy

9. Radionuclide Imaging
   Kidney
   Upper urinary tract obstruction
   Chronic pyelonephritis in children
   Renal transplantation
   Renovascular hypertension
   Functional renal mass quantification
   Space-occupying renal lesions
   Bladder
   Testis
   Adrenal scintigraphy
   Skeletal scintigraphy
   Scintigraphic detection of occult inflammation
   Future considerations

10. Retrograde Instrumentation of the Urinary Tract
    Urethral catheterization
Urethroscopy
Cystoscopy
Ureteral catheterization
Transurethral surgery
Lower tract calculi
Advanced instrumentation

11. Urinary obstruction and Stasis

12. Vesicoureteral reflux
   Anatomy of the ureterovesical junction
   Physiology of the ureterovesical junction
   Vesicoureteral reflux causes, complications, incidence, clinical findings, differential diagnosis, treatment and prognosis

13. Nonspecific Infections of the Genitourinary Tract
   Nonspecific infections of the kidneys - Acute pyelonephritis, chronic pyelonephritis, xanthogranulomatous pyelonephritis, bacteremia and septic shock, interstitial nephritis and papillary necrosis, renal abscess (intrarenal), perinephric abscess
   Nonspecific infections of the bladder - Acute cystitis, acute urethral syndrome in women, chronic cystitis
   Nonspecific infections of the prostate gland - Acute bacterial prostatitis, prostatic abscess, chronic bacterial prostatitis, Nonbacterial prostatitis, prostatodynia, nonspecific granulomatous prostatitis
   Nonspecific Infections of the seminal vesicles
   Nonspecific infections of the male urethra
   Nonspecific infections of the epididymis, acute epididymitis, chronic epididymitis
   Nonspecific infections of the testis and scrotum, acute orchitis
   Antimicrobial treatment of urinary tract infections

14. Specific Infections of the Genitourinary Tract
   Tuberculosis
   Amicrobic (abacterial) cystitis
   Candidiasis
   Actinomycosis
   Schistosomiasis (bilharziasis)
   Filariasis
   Echinococcosis (hydatid disease)

15. Sexually Transmitted Diseases in Males
   Gonococcal urethritis
   Nongonococcal urethritis
   Trichomonia
   Primary syphilis
   Chancroid
   Lymphogranuloma venereum
   Granuloma inguinale
   Genital herpes infections
   Hepatitis and enteric infections

18
Human immunodeficiency virus infections
Genital warts

16. Urinary Stones
   Diagnostic evaluation
   Calcium stones
   Hypercalciuria
   Normocalciuria
   Other metabolic disorders associated with calcium stones
   Hyperoxaluria
   Hyperuricosuria
   Mild hypercystinuria (heterozygous cystinuria)
   Hypocitraturia
   Cystine stones (severe hypercystinuria, homozygous cystinuria)
   Stones associated with infection (struvite stones)
   Uric acid stones
   Urinary stones in pregnancy
   Treatment of urinary stones
   Surgical treatment of stones, percutaneous stone removal, extracorporeal shock wave lithotripsy (ESWL), Treatment of ureteral stones
   Bladder stones
   Urethral stones

17. Extracorporeal Shock Wave Lithotripsy
   Preoperative evaluation
   Intraoperative considerations
   Postoperative care

18. Genitourinary Trauma
   Emergency diagnosis and management
   Injuries to the kidneys
   Injuries to the ureter
   Injuries to the bladder
   Injuries to the urethra
   Injuries to the posterior urethra
   Injuries to the anterior urethra
   Injuries to the penis
   Injuries to the scrotum
   Injuries to the testis

19. Immunology of Genitourinary Tumors
   Components of the immune system
   Immunologic concepts of oncogenesis
   Immunologic methods in tumor diagnosis
   Immunootherapy and biotherapy

20. Urothelial Carcinoma: Cancers of the Bladder, Ureter, and Renal Pelvis
    Bladder carcinomas
    Ureteral and Renal pelvic cancers
    21. Renal Parenchymal Neoplasms
Benign tumors
Adenocarcinoma of the kidney (renal cell carcinoma)
Nephroblastoma (Wilms Tumor)
Sarcoma of the kidney
Secondary renal tumors

21. Neoplasms of the Prostate Gland
Benign prostate hyperplasia (BPH)
Prostate cancer

22. Genital Tumors
Tumors of the testis
Germ cell tumors of the testis
Non-germ cell tumors of the testis
Secondary tumors of the testis
Extragonadal germ cell tumors
Tumors of the epididymis, paratesticular tissues, and spermatic cord
Tumors of the penis
Tumors of the scrotum

23. Urinary Diversion and Bladder Substitution
Intestinal conduit urinary diversion
Continent urinary diversion and bladder substitution
Postoperative care
Complications

24. Laser Surgery
Physical principles of laser operation
Basic mechanism
Beam power and power density
Continuous wave and pulsed lasers
Beam manipulation and effect on target tissue - principles and wavelength
Types of lasers and their uses - CO₂ laser, Nd:YAG laser, flash lamp laser, argon laser and dye lasers

25. Chemotherapy of Urologic Tumors
Chemotherapy principles
Applications of chemotherapy
Chemotherapeutic agents
Immunotherapy
Treatment of germ cell malignancies
Treatment of bladder cancer
Treatment of renal cell cancer
Treatment of prostate cancer

26. Neuropathic Bladder Disorders
Normal vesical function: anatomy; urodynamic studies; neurophysiology, physiology
Abnormal vesical function: classification of neuropathic bladder; spinal shock and recovery of vesical function after spinal cord injury
Diagnosis of neuropathic bladder
Differential diagnosis of neuropathic bladder
Complications of neuropathic bladder
Treatment of neuropathic bladder
Treatment of complications of neuropathic bladder
Prognosis

27. Urodynamic Studies
   Functions relevant to urodynamics and tests applicable to each
   Physiologic and hydrodynamic considerations
   Urinary flow rate
   Bladder function
   Sphincteric function
   Value of simultaneous recordings

28. Disorders of the Adrenal Glands
   Adrenal hemorrhage in the newborn
   Adrenal cyst
   Metastases from other organs
   Myelolipoma
   Diseases of the adrenal cortex
   Cushings’s syndrome
   Adrenal androgenic syndromes
   Hypertensive, hypokalemia syndrome (primary aldosteronism)
   Diseases of the adrenal medulla
   Pheochromocytoma
   Neuroblastoma

29. Disorders of the Kidneys
   Congenital anomalies of the kidneys
   Agenesis; hypoplasias; supernumerary kidneys; dysplasia and multicystic kidney; adult polycystic kidneys; simple (solitary) cyst; renal fusion; ectopic kidney; abnormal rotation; medullary sponge kidney (cystic dilatation of the renal collecting tubules); abnormalities of the renal vessels
   Acquired lesions of the kidneys
   Aneurysm of the renal artery; renal infarcts; thrombosis of the renal vein; arteriovenous fistula; arteriovenous aneurysm; renoalimentary fistula; renobronchial fistula

30. Diagnosis of Medical Renal Diseases
   Glomerulonephritis
   Nephrotic syndrome
   Renal involvement in collagen diseases
   Diseases of the renal tubules and interstitium
   Hereditary renal diseases

31. Oliguric Acute Renal Failure
   Prerenal renal failure
   Vascular renal failure
   Intrarenal disease states: intrarenal acute renal failure
   Postobstructive acute renal failure
32. Chronic Renal Failure and Dialysis

33. Renal Transplantation

34. Disorders of the Ureter and Ureteropelvic Junction
   *Congenital anomalies of the ureter*
   *Ureteral atresia*
   *Duplication of the ureter*
   *Ureterocele*
   *Ectopic ureteral orifice*
   *Abnormalities of ureteral position*
   *Obstruction of the ureteropelvic junction*
   *Obstructed megaureter*
   *Upper urinary tract dilation without obstruction*
   *Acquired diseases of the ureter*
   *Retroperitoneal fibrosis (retroperitoneal fasclitis, chronic retroperitoneal fibroplasia, Ormond's disease)*
   *Ureteral obstruction secondary to malignant disease*

35. Disorders of the Bladder, Prostate, and Seminal Vesicles
   *Congenital anomalies of the bladder*
   *Exstrophy*
   *Persistent urachus*
   *Contracture of the bladder neck*
   *Acquired diseases of the bladder*
   *Interstitial cystitis (Hunner's ulcer, submucous fibrosis)*
   *External vesical herniation*
   *Internal vesical herniation*
   *Urinary stress incontinence*
   *Urinary incontinence*
   *Enuresis*
   *Foreign bodies introduced into the bladder and urethra*
   *Vesicle manifestations of allergy*
   *Diverticula*
   *Vesical fistulas*
   *Perivesical lipomatosis*
   *Radiation cystitis*
   *Noninfectious hemorrhagic cystitis*
   *Empyema of the bladder*
   *Congenital anomalies of the prostate and seminal vesicles*
   *Bloody ejaculation*

36. Disorders of the Penis and Male Urethra
   *Congenital anomalies of the penis*
   *Apenia*
   *Megalopenis*
   *Micropenis*
   *Congenital anomalies of the urethra*
   *Duplication of the urethra*
   *Urethral stricture*
   *Posterior urethral valves*
Anterior urethral valves
Urethrorectal and vesicorectal fistulas
Hypospadias
Chordee without hypospadias
Epispadias
Acquired diseases and disorders of the penis and male urethra
Priapism
Peyronie’s disease
Phimosis
Paraphimosis
Circumcision
Urethral stricture
Urethral condylomata acuminata (urethral warts)
Stenosis of the urethral meatus
Penile phlebothrombosis and lymphatic occlusion

37. Disorders of the Female Urethra
Congenital anomalies of the female urethra
Distal urethral stenosis in infancy and childhood (Spasm of the external urinary sphincter)
Labial fusion (Synechia Vulvae)
Acquired diseases of the female urethra
Acute urethritis
Chronic urethritis
Senile urethritis
Urethral caruncle
Prolapse of the urethra
Urethrovaginal fistula
Urethral diverticulum
Urethral stricture

38. Disorders of the Testis, Scrotum, and Spermatic Cord
Disorders of the scrotum
Congenital anomalies of the testis
Anomalies of number
Hypogonadism
Ectopy and Cryptorchidism
Congenital Anomalies of the epididymis
Disorders of the spermatic cord
Spermatocoele
Varicocele
Hydrocele
Torsion of the spermatic chord
Torsion of the appendices of the testis epididymis

39. Skin Diseases of the External Genitalia
Inflammatory dermatoses
Contact dermatitis
Circumscribed neurodermatitis (Lichen simplex Chronicus)
Atopic dermatitis
Intertrigo
Drug eruptions
Psoriasis
Seborrheic dermatitis
Lichen planus
Lichen sclerosus et atrophicus
Common superficial infections
Arthropods
Fungal infections (Tinea cruris)
Candidiasis
Bacterial infections (Pyoderma)
Viral infections

40. Abnormalities of Sexual Differentiation
   Normal sex differentiation
   Testicular and ovarian differentiation
   Psychosexual differentiation
      Abnormal sex differentiation
   Seminiferous tubule dysgenesis
   Chromatin-positive Klinefelter's syndrome and its variants
      Syndromes of Gonadal Dysgenesis
      Turner's Syndrome and its variants
      46, XX and 46, XY Gonadal dysgenesis
      True hermaphroditism
      Female pseudohermaphroditism
      Maternal androgens and progestogens
      Male pseudohermaphroditism
      Unclassified forms of abnormal sexual development in males
      Unclassified forms of abnormal sexual development in females
      Management of patients with intersex problems

41. Renovascular Hypertension

42. Male Infertility
   Male reproductive physiology
   Hypothalamic-pituitary-gonadal axis
   Testes
   Hormonal control of spermatogenesis
   Transport-maturation-storage of sperm
   Fertilization
   Male Infertility
   Clinical findings
   Causes
   Treatment

43. Male Sexual Dysfunction
PROGRAM GOALS AND OBJECTIVES

Clinical:
1. The resident will develop a strong urologic clinical and basic science knowledge base that will allow him/her to choose the appropriate diagnostic tools and the appropriate management for a specific urological problem.
2. The resident will progressively increase his/her experience in patient management throughout the residency so that he/she will be able to appropriately diagnose and treat urologic problems in an effective and timely manner by the end of the residency. The resident will learn to act independently with regards to both clinical decision making and therapeutic management.
3. The resident will progressively increase his/her surgical skills throughout the residency so that he/she will feel comfortable performing all major urologic procedures by the end of the residency.

Research:
1. The resident will have a full understanding of the research process, and will be able to analyze the current literature and be able to incorporate scientifically valid results into his/her urologic practice.
2. The resident will demonstrate competence in hypothesis formation, data collection, and analysis methodology.
3. The Department of Urology strongly encourages residents to participate in research activities. We expect residents to learn the principles of study design, data analysis, and discussion of results in light of the current literature. Residents can learn these principles by attending Grand Rounds, critiquing articles during Journal Club, going to special lectures by visiting faculty, attending Minnesota Urological Society meetings, when visiting professors present their research, and conducting basic or clinical research projects. As a culmination of these efforts, all residents are expected to present an in-depth scholarly seminar once a year.

Academics:
1. The resident will participate in an academic course of study during each year of residency.
2. The academic course of study will result in strong national performance for the resident on the annual in-service exam in urology.
3. By the end of residency, the resident will have the academic knowledge to pass the qualifying exam of the American Board of Urology.
4. The academic course of study will assist the resident in his/her clinical decision making process and therapeutic strategies.

Teaching:
1. The resident will progressively learn how to teach others during his/her residency.
2. By the end of residency, the resident will have the ability to teach all aspects of urology to any person or group of people with the desire to further their understanding of Urology.

System-based Practice:
1. Work effectively in various health care delivery settings ranging from the MVAHCS to UMMC and HCMC to FV Southdale.
2. Coordinate patient care within the health care system relevant to urology.
3. Incorporate considerations of cost awareness and risk-benefit analysis in patient care and/or population-based care as appropriate.
4. Advocate for quality patient care and optimal patient care systems.
5. Work in interprofessional teams to enhance patient safety and improve patient care quality.
6. Participate in identifying system errors and in implementing potential systems solutions.
SPECIFIC GOALS BY YEAR OF RESIDENCY:

PGY-1 (Pre-Urology)

After matching in the urology training program, candidates enroll as surgical interns for one year in the Department of Surgery at the University of Minnesota.

The goal of the PGY-1 (pre-urology) year is to learn the basics of evaluating and managing patient care in a clinical and surgical setting. Emphasis is placed on preoperative and postoperative management of the surgical patient, multidisciplinary approach to the complicated patient, and emergency room evaluation.

General, Transplant, ICU, Plastic, and Cardiovascular Surgery rotations during the pre-urology year provide extensive experience in diagnosis, evaluation, surgical techniques, and post-surgical care of patients. Interventional Radiology rotation provides exposure to minimally invasive treatment of disease. Residents also spend time during the pre-urology year rotation on surgical sub-specialties and emergency medicine.

Direct participation by the residents in all phases of patient care during the pre-urology year is under the supervision of faculty, fellows, and senior residents in general surgery, or the faculty and senior resident of the sub-specialty rotations. The pre-urology residents are evaluated on each rotation by the Service Chief and faculty. (Please see Program Manual for the Department of Surgery).
**PGY-2 (Uro-1):** The resident will spend 8 months at the Minneapolis VA Health Care System (MVAHCS), and 4 months at University of Minnesota Medical Center (UMMC) that will be integrated with pediatric urology.

**MVAHCS**
The goal of the PGY-2 (Uro-1) year at MVAHCS is to begin learning the basics of adult urology. This includes obtaining the presenting urologic history, performing the examination, and formulating an appropriate management plan. The resident will learn and become proficient at some of the more basic urologic operations as noted below and will assist in more complex procedures. The resident will learn principles of sound urologic research and participate in an active conference schedule. At the completion of the academic year the resident will have studied half of the detailed curriculum that covers all the domains of urology.

**Clinical (Patient Care, Professionalism, Interpersonal and Communication Skills):**
1. At both institutions the resident will act as the primary surgeon for the following types of surgical procedures:
   - **Endoscopy:**
     - Cystoscopy
     - Simple Transurethral surgery (e.g. TUIP, small bladder tumor)
     - Ureteroscopy
     - ESWL
   - Minor open procedures:
     - Cystostomy
     - Penile surgery
     - Scrotal surgery
     - Spermatic cord surgery
2. The resident will assist the senior resident and/or attending physician with more complex procedures.
3. The resident will perform the initial history and physical examination on patients in the clinic and those admitted to the hospital.
4. The resident will be responsible for the day to day care of their patients while they are in the hospital.
5. The resident will participate in the surgery of his/her patients, and will coordinate the post-operative care.
6. The resident will learn urologic emergency room medicine.

**Research (Medical Knowledge):**
1. The resident will choose a research project and a faculty mentor that will assist with the project. This can be clinical or basic science research. The research project will be presented during the academic year as a scholarly seminar during Grand Rounds. The resident is also encouraged to submit the research to a national conference and for publication
2. The resident will participate in the monthly journal clubs, and will present research articles at the meetings.

**Academic (Practice-Based Learning and Improvement):**
1. The resident will attend the conferences as outlined in the Conference Curriculum.
2. The resident will have developed a home study course with their faculty advisor that will assist him/her to prepare for and master all the topics of the Core Curriculum.
3. The resident will take the national in-service exam at the end of the calendar year.

**Teaching (Practice-Based Learning and Improvement):**
1. The resident will present cases and give didactic lectures at Grand Rounds, and other conferences as appropriate for his/her level of training.
2. The resident will participate in formal and informal instruction of other physicians, students, and allied health personnel.

**System-Based Practice**

The resident learns to coordinate care and interface with a variety of clinical service lines as the contact person for inpatient and emergency room consultations. The resident will learn about the larger context of health care by participating in a conference to assess, coordinate, and improve health care.

**UMMC**

The goal of the PGY-2 (U-1) year at UMMC is to begin learning the basics of adult and pediatric urology. This includes obtaining the presenting urologic history, performing the examination, and formulating an appropriate management plan. The resident will learn and become proficient at some of the more basic urologic operations as noted below and will assist in more complex procedures. The resident will learn principles of sound urologic research and participate in an active conference schedule. At the completion of the academic year the resident will have studied half of the detailed curriculum that covers all the domains of urology.

**Clinical (Patient Care, Professionalism, Interpersonal and Communication Skills):**

1. The resident will act as the primary surgeon for the following types of surgical procedures:
   - Endoscopy:
   - Cystoscopy
   - Simple Transurethral surgery (e.g. TUIP, small bladder tumor)
   - Ureteroscopy
   - ESWL
   - Minor open procedures:
   - Cystostomy
   - Penile surgery
   - Scrotal surgery
   - Spermatic cord surgery

2. The resident will assist the senior resident and/or attending physician with more complicated operations.
3. The resident will perform the initial history and physical examination on patients in the clinic and those admitted to the hospital.
4. The resident will be responsible for the day to day care of their patients while they are in the hospital.
5. The resident will participate in the surgery of his/her patients, and will coordinate the post-operative care.
6. The resident will learn urologic emergency room medicine.

**Research (Medical Knowledge):**

1. The resident will choose a research project and a faculty mentor that will assist with the project. This can be clinical or basic science research. The research project will be presented during the academic year as a scholarly seminar during Grand Rounds. The resident is also encouraged to submit the research to a national conference and for publication.
2. The resident will participate in the monthly journal clubs, and will present research articles at the meetings.

**Academic (Practice-Based Learning and Improvement):**

1. The resident will attend the conferences as outlined in the Conference Curriculum and attend the weekly pediatric urology indications conference at 7 AM on Tuesday mornings.
2. The resident will have developed a home study course with their faculty advisor that will assist him/her to study all the topics in the Core Curriculum.
3. The resident will take the national in-service exam at the end of the calendar year.
Teaching (Practice-Based Learning and Improvement):
1. The resident will present cases and give didactic lectures at Grand Rounds, and other conferences as appropriate for his/her level of training.
2. The resident will participate in formal and informal instruction of other physicians, students, and allied health personnel.

System-Based Practice
The resident will learn about the larger context of health care by participating in a conference to assess, coordinate, and improve health care.
**PGY3 (Uro-2):** The resident will spend 4 months at the Minneapolis VA Health Care System (MVAHCS) and 8 months at University of Minnesota Medical Center (UMMC).

*MVAHCS*

The goals of the PGY3 resident at the MVAHCS are to learn to independently diagnose and treat urologic problems in adults and to be proficient at more complex surgical procedures as outlined below. At the completion of the academic year the residents will have studied the second half of a detailed curriculum through an extensive conference schedule and continued their education in research and learning how to teach basic urology.

**Clinical (Patient Care, Professionalism, Interpersonal and Communication Skills):**
1. The resident, in addition to the procedures outlined in the PGY-2 section above, will act as the primary surgeon for more complicated surgical procedures such as:
   - Renal surgery including nephrectomy and pyeloplasty
   - Bladder surgery including partial cystectomy and cystolithotomy
   - Open prostatectomy
   - Penile surgery including tunica plication and insertion of inflatable penile prosthesis surgery.
   - Urethral surgery
   - ESWL
   - More complex endourologic procedures
   - Transurethral resection of the prostate
2. The resident will assist the senior resident and/or attending physician with more complicated operations.
3. The resident will actively participate in the urology clinic and learn how to more independently diagnose and treat urologic problems.
4. The resident will assist the junior resident and medical students on their history and physicals in both the clinic and in the hospital.
5. The resident will be responsible for the day to day care of their patients while they are in the hospital.
6. The resident will participate in the surgery of their patients, and will help coordinate the post-operative care.
7. The resident will continue to learn urologic emergency room medicine.

**Research (Medical Knowledge):**
1. The resident will choose a research project and a faculty mentor that will assist with the project. This can be clinical or basic science research. The research project will be presented during the academic year as a scholarly seminar during Grand Rounds. The resident is also encouraged to submit the research to a national conference and for publication
2. The resident will participate in the monthly journal clubs, and will present research articles at the meetings.

**Academic (Practice-Based Learning and Improvement):**
1. The resident will attend the conferences as outlined in the Conference Curriculum.
2. The resident will continue his/her home study course with an emphasis in areas of deficiencies as recommended by his/her faculty advisor.
3. The resident will take the national in-service exam at the end of the calendar year.

**Teaching (Practice-Based Learning and Improvement):**
1. The resident will continue to teach surgical skills to the junior resident.
2. The resident will present cases and give didactic lectures at Grand Rounds, and other conferences as appropriate for his/her level of training.
3. The resident will participate in formal and informal instruction of other physicians, students, and allied health personnel.

**System-Based Practice**
The resident will learn about the larger context of health care by participating in an conference to assess, coordinate, and improve health care.

**UMMC**
The goal of the PGY3 resident at UMMC is to begin learning the basics of pediatric urology and learning diagnosis and treatment of some specialty areas such as urogynecology and complex cases. At the completion of the academic year the residents will have studied the second half of a detailed curriculum through an extensive conference schedule and continued their education in research and learning how to teach basic urology.

**Clinical (Patient Care, Professionalism, Interpersonal and Communication Skills):**
1. In addition to the procedures outlined in the PGY-2 section above, the resident will act as the primary surgeon for more complicated surgical procedures such as:
   - Complex endourologic procedures
   - Transurethral surgery
   - Ileal conduits
   - Pelvic lymphadenectomy
   - Brachytherapy
   - Cryotherapy
   - Female Incontinence Surgery
   - Pediatric orchiopexy, circumcision and other basic pediatric surgeries
2. The resident will assist the senior resident with more complicated operations, including pediatric cases at UMMC.
3. The resident will actively participate in specialty clinics:
   - Urogynecology clinic
   - Pediatric clinic
   - Stone clinic
   - Complex cancer clinic
4. The resident will assist the junior resident and medical students on their history and physicals in both the clinic and in the hospital.
5. The resident will be responsible for the day to day care of their patients while they are in the hospital.
6. The resident will participate in the surgery of their patients, and will help coordinate the post-operative care.
7. The resident will continue to learn urologic emergency room medicine.

**Research (Medical Knowledge):**
1. The resident will choose a research project and a faculty mentor that will assist with the project. This can be clinical or basic science research. The research project will be presented during the academic year as a scholarly seminar during Grand Rounds. The resident is also encouraged to submit the research to a national conference and for publication.
2. The resident will participate in the monthly journal clubs, and will present research articles at the meetings.

**Academic (Practice-Based Learning and Improvement):**
1. The resident will attend the conferences as outlined in the Conference Curriculum.
2. The resident will continue his/her home study course with an emphasis in areas of deficiencies as recommended by his/her faculty advisor.
3. The resident will take the national in-service exam at the end of the calendar year.

**Teaching (Practice-Based Learning and Improvement):**
1. The resident will continue to teach surgical skills to the junior resident.
2. The resident will present cases and give didactic lectures at Grand Rounds, and other conferences as appropriate for his/her level of training.
3. The resident will participate in formal and informal instruction of other physicians, students, and allied health personnel.

**System-Based Practice**
The resident will learn about the larger context of health care by participating in a conference to assess, coordinate, and improve health care.
PGY-4 (Uro-3): The resident will spend 4 months as Chief Resident on the Pediatric Urology service, 4 months as the Research and Special Procedure Resident at the Minneapolis VA Health Care System (MVAHCS), and 4 months as Chief Resident on the Urology Service at Hennepin County Medical Center (HCMC).

Pediatrics
The goals of the PGY4 (Uro-3) resident on the Pediatric service is to learn the evaluation and management of pediatric urology patients, learn the scope of pediatric urology conditions and operative procedures, reinforce their understanding of principles of urology by repeating the curriculum they have studied in their first years, further their understanding of urologic research and learn to teach basic urology to the junior residents. The resident is to participate fully with the pediatric urology attending staff in the evaluation and management of pediatric urology patients.

Clinical (Patient Care, Professionalism, Interpersonal and Communication Skills):
1. Surgery: The resident must attend the pediatric urology clinic at the University of Minnesota campus until the clinical objectives of that clinic have been met. The surgical experience with the attending pediatric urology staff will be determined by the director of pediatric urology.
Round daily on inpatients at the University of Minnesota and St. Paul Children’s Hospitals.
Round on the post-operative inpatient if in that hospital or adjacent clinic.
The types of cases that the resident is expected to be proficient at by the end of the rotation include:
- Ureteroneocystostomy
- Pediatric hernia and hydrocele
- Orchiopexy-laparoscopic and open
- Pyeloplasty—open and robot assisted
- Bladder augmentation
- Urinary diversion
- Partial nephroureterectomy
- Excision of ureterocele
3. Clinics:
Belong to the UMMC call rotation
When on-call, be available for emergency consults and surgeries.

Research (Medical Knowledge):
1. The resident will choose a research project and a faculty mentor that will assist with the project. This can be clinical or basic science research. The research project will be presented during the academic year as a scholarly seminar during Grand Rounds. The resident is also encouraged to submit the research to a national conference and for publication.
2. The resident will participate in the monthly journal clubs, and will present research articles at the meetings.

Academic (Practice-Based Learning and Improvement):
1. The resident will attend the conferences as outlined in the Conference Curriculum with the following requirements:
   Grand Rounds: At least three cases need to be prepared for Pediatric Grand Rounds which occurs once a month. A case of interest will be prepared each week. Select the case with one of the attending five to seven days prior to the conference. For a complicated patient, review the history and imaging studies with the attending one to two days prior to the conference. Avoid reading notes during the presentations. Have all the
imaging studies in order. Limit total time of case presentation and literature review to 15 minutes. Preparation for these case presentations should not interfere with attendance at surgery or clinic. No charts will be removed off site and x-rays will be returned to the hospital where they were obtained.

Morbidity and Mortality Conference: List all cases performed on the pediatric service for the previous month. Discuss those in which complications occurred. This should be adequately documented (number of surgeries, bed census, sites, etc.)

Weekly Indications Conference: The resident will prepare a list of all surgical cases to be performed at all sites by the pediatric urology faculty for the upcoming week. Describing the indications for surgery, technique and post operative planning will be the focus of this conference.

2. The resident will continue his/her home study course, with an emphasis in areas of deficiencies as recommended by his/her faculty advisor.

3. The resident will take the national in-service exam at the end of the calendar year.

Teaching (Practice-Based Learning and Improvement):
1. The pediatric resident will be responsible for teaching medical students while at Children’s Hospital.
2. The resident will present more complicated cases and give didactic lectures at Grand Rounds, and other conferences as appropriate for his/her level of training.
3. The resident will assist junior residents and medical students with their presentations.
4. The resident will participate in formal and informal instruction of other physicians, students, and allied health personnel.

System-Based Practice
The resident will learn about the larger context of health care by participating in an conference to assess, coordinate, and improve health care.

MVAHCS
The goals of the PGY4 (Uro-3) resident at the MVAHCS is to learn the principles of research, to train in specialty procedures such as transrectal ultrasound, ESWL, brachytherapy, etc., to reinforce their understanding of principles of urology by repeating the curriculum they have studied in their first years, further their understanding of urologic research, and learn to teach basic urology to the junior residents.

Clinical (Patient Care, Professionalism, Interpersonal and Communication Skills):
This is a combined research – special procedures rotation. The resident will participate in the on-going research projects, and can initiate new research projects as approved by staff. The resident will perform and received special training (dry lab) in laparoscopy, and will participate in laparoscopic cases. The resident will also do other special procedures such as brachytherapy, thermal therapy, ESWL, and get additional experience with transrectal ultrasound and prostate biopsies. Also, this resident will provide clinical coverage for the other three residents in the event of vacation, meetings, interviews, and is expected to have clinical duties those days.

Research (Medical Knowledge):
1. The resident will choose a research project and a faculty mentor that will assist with the project. This can be clinical or basic science research. The research project will be presented during the academic year as a scholarly seminar during Grand Rounds. The resident is also encouraged to submit the research to a national conference and for publication.
2. The resident will participate in the monthly journal clubs, and will present research articles at the meetings.

Academic (Practice-Based Learning and Improvement):
1. The resident will attend the conferences as outlined in the Conference Curriculum.
2. The resident will continue his/her home study course, with an emphasis in areas of deficiencies as recommended by his/her faculty advisor.
3. The resident will take the national in-service exam at the end of the calendar year.

**Teaching (Practice-Based Learning and Improvement):**
1. The resident will present more complicated cases and give didactic lectures at Grand Rounds, and other conferences as appropriate for his/her level of training.
2. The resident will assist junior residents and medical students with their presentations.
3. The resident will participate in formal and informal instruction of other physicians, students, and allied health personnel.

**System-Based Practice**
The resident will learn about the larger context of health care by participating in a conference to assess, coordinate, and improve health care.

**HCMC**
The goals of the PGY-4 (Uro-3) resident at HCMC is to continue their training in the evaluation and management of general urology issues, adult and pediatric, reinforce their understanding of principles of urology by repeating the curriculum they have studied in their first years, further their understanding of urologic research, and learn to teach basic urology to the junior residents.

**Clinical (Patient Care, Professionalism, Interpersonal and Communication Skills):**
Continue the scope of general adult urology practice, male and female in both the clinic and operating room.

1. **Surgery**
   The types of cases the resident is expected to improve their efficiency by the end of the rotation will include:
   - Transurethral surgery
   - Stone surgery, ureteroscopy, and extracorporeal lithotripsy
   - General cystoscopy
   - Open kidney surgery
   - Open bladder surgery
   - Urologic complication of renal transplant surgery

2. **Consults/Inpatient:**
   Perform patient consultations with the attending.
   Round daily on inpatients at HCMC
   Round on post-operative inpatients
3. **Clinics**
   The resident must attend the general and pediatric urology clinics at HCMC. The surgical experience with the attending staff will be determined by the site director.
   The PGY-4 (U-3) resident will be on-call on average every 3rd night and every 3rd weekend.

**Research (Medical Knowledge):**
1. The resident will choose a research project and a faculty mentor that will assist with the project. This can be clinical or basic science research. The research project will be presented during the academic year as a scholarly seminar during Grand Rounds. The resident is also encouraged to submit the research to a national conference and for publication.
2. The resident will participate in the monthly journal clubs, and will present research articles at the meetings.
**Academic (Practice-based Learning and Improvement):**
1. Conferences: The resident will continue to attend existing conferences as outlined in the departmental conference schedule. In addition, Radiology conference on Tuesday morning (8:30 a.m.) and Pathology review (Thursday morning 7:30 in the Surgical Pathology Office).
2. The resident will continue his/her home study course with an emphasis on areas of deficiencies as identified by his/her faculty advisor.
3. The resident will take national in-service exam at the end of the calendar year.

**Teaching (Practice-Based Learning and Improvement):**
1. The Chief Resident is responsible for assisting in the teaching of medical students while at HCMC.
2. The resident will present more complicated cases and be prepared to give didactic lectures at departmental grand rounds and other conferences as appropriate for his/her level of training.
3. The resident will assist junior residents and medical students with their presentations.
4. The resident will participate in formal and informal instruction of other physicians, students, and allied health personnel.

**System-Based Practice**
The resident will learn about the larger context of health care by participating in a conference to assess, coordinate, and improve health care.
**PGY-5 (Uro-4):** The resident will spend 4 months as Chief Resident at University of Minnesota Medical Center (UMMC), 4 months as Chief Resident at the Minneapolis VA Health Care System (MVAHCS), and 4 months on a combined rotation as Chief Resident at University of Minnesota Medical Center (UMMC) and Fairview Southdale Hospital (FVSH).

**UMMC**
The goal of the PGY5 (Uro-4) or Chief Resident at UMMC is to be proficient in the diagnosis, management and follow-up of patients who present with urologic problems and to do so independently. This includes being proficient in all urologic surgery that is typically performed by a board certified urologist. Another goal is to have to have completed the core curriculum for a second time which should allow them to pass their boards and to use the knowledge to provide excellent care to their patients. Finally, the Chief Resident is to understand the principles of research that further the field of urology and to use this research knowledge to continue their study and understanding of urology after they have graduated from the program.

**Clinical (Patient Care, Professionalism, Interpersonal and Communication Skills):**
1. The resident will continue to be the primary surgeon for all the surgical procedures listed in the PGY-2, PGY-3, and PGY-4 sections above. He/she will spend this year developing independence and excellence in all aspects of urologic surgery.
2. Clinical responsibilities of the Chief Resident include:
   - Will oversee patient care and training of junior residents and students
   - Will monitor the condition of all inpatients and keep the attending physicians informed
   - Will coordinate urologic emergency care
   - Will determine the daily schedules for all junior members of the urology team

**Research (Medical Knowledge):**
1. The resident will choose a research project and a faculty mentor that will assist with the project. This can be clinical or basic science research. The research project will be presented during the academic year as a scholarly seminar during Grand Rounds. The resident is also encouraged to submit the research to a national conference and for publication
2. The resident will participate in the monthly journal clubs, and will present research articles at the meetings.

**Academic (Practice-based Learning and Improvement):**
1. The resident will attend the conferences as outlined in the Conference curriculum.
2. The resident will continue his/her home study course, becoming extremely proficient in all the topics in the Core Curriculum by the end of the year.
3. The resident will take the national in-service exam at the end of the calendar year.
4. The resident will organize and obtain attendance records for Grand Rounds, CPC conference, Morbidity/Mortality conference, Journal Club, and other UMMC urology conferences.

**Teaching (Practice-Based Learning and Improvement):**
1. The resident will be responsible for daily teaching rounds on the inpatient service.
2. With the supervision of faculty, the Chief Resident will teach routine surgical procedures to junior-level residents.
3. The resident will present lecture in the Core Curriculum conference.
4. The resident will oversee the assignment and execution of instruction of other physicians, medical students, and allied health personnel.
5. The resident will have regular meetings with the Program Director regarding the residency training program.
**System-Based Practice**
The resident will learn about the larger context of health care by participating in a conference to assess, coordinate, and improve health care.

**MVAHCS**
The goal of the PGY5 (Uro-4) or Chief Resident at MVAHCS is to be proficient in the diagnosis, management and follow-up of patients who present with urologic problems and to do so independently. This includes being proficient in all urologic surgery that is typically performed by a board certified urologist. Another goal is to have to have completed the core curriculum for a second time which should allow them to pass their boards and to use the knowledge to provide excellent care to their patients. Finally, the Chief Resident is to understand the principles of research that further the field of urology and to use this research knowledge to continue their study and understanding of urology after they have graduated from the program.

**Clinical (Patient Care, Professionalism, Interpersonal and Communication Skills):**
1. The resident will continue to be the primary surgeon for all the surgical procedures listed in the PGY-2, PGY-3, and PGY-4 sections above. He/she will spend this year developing independence and excellence in all aspects of urologic surgery.
2. Clinical responsibilities of the Chief Resident include:
   - Will oversee patient care and training of junior residents and students
   - Will monitor the condition of all inpatients and keep the attending physicians informed
   - Will coordinate the clinic at the Veterans Affairs Medical Center.
   - Will coordinate urologic emergency care
   - Will determine the daily schedules for all junior members of the urology team

**Research (Medical Knowledge):**
1. The resident will choose a research project and a faculty mentor that will assist with the project. This can be clinical or basic science research. The research project will be presented during the academic year as a scholarly seminar during Grand Rounds. The resident is also encouraged to submit the research to a national conference and for publication
2. The resident will participate in the monthly journal clubs, and will present research articles at the meetings.

**Academic (Practice-based Learning and Improvement):**
1. The resident will attend the conferences as outlined in the Conference curriculum.
2. The resident will continue his/her home study course, becoming extremely proficient in all the topics in the Core Curriculum by the end of the year.
3. The resident will take the national in-service exam at the end of the calendar year.
4. The resident will organize and obtain attendance records for all VAMC urology conferences.

**Teaching (Practice-Based Learning and Improvement):**
1. The resident will be responsible for daily teaching rounds on the inpatient service.
2. With the supervision of faculty, the Chief Resident will teach routine surgical procedures to junior-level residents.
3. The resident will present lecture in the Core Curriculum conference.
4. The resident will oversee the assignment and execution of instruction of other physicians, medical students, and allied health personnel.
5. The resident will have regular meetings with the Program Director regarding the residency training program.
**System-Based Practice**
The resident will learn about the larger context of health care by participating in a conference to assess, coordinate, and improve health care.

**FVSH**
The goal of the PGY5 (Uro-4) or Chief Resident during the FVSH/UMMC rotation is to be proficient in the diagnosis, management and follow-up of patients who present with urologic problems and to do so independently. This includes being proficient in all urologic surgery that is typically performed by a board certified urologist. Another goal is to have to have completed the core curriculum for a second time which should allow them to pass their boards and to sue the knowledge to provide excellent care to their patients. Finally, the Chief Resident is to understand the principles of research that further the field of urology and to use this research knowledge to continue their study and understanding of urology after they have graduated from the program.

**Clinical (Patient Care, Professionalism, Interpersonal and Communication Skills):**
1. The resident will continue to be the primary surgeon for all the surgical procedures listed in the PGY-2, PGY-3, and PGY-4 sections above. He/she will spend this year developing independence and excellence in all aspects of urologic surgery.
2. Clinical responsibilities of the Chief Resident include:
   - Will oversee patient care and training of junior residents and students
   - Will monitor the condition of all inpatients and keep the attending physicians informed
   - Will coordinate urologic emergency care
   - Will determine the daily schedules for all junior members of the urology team

**Research (Medical Knowledge):**
1. The resident will choose a research project and a faculty mentor that will assist with the project. This can be clinical or basic science research. The research project will be presented during the academic year as a scholarly seminar during Grand Rounds. The resident is also encouraged to submit the research to a national conference and for publication
2. The resident will participate in the monthly journal clubs, and will present research articles at the meetings.

**Academic (Practice-based Learning and Improvement):**
1. The resident will attend the conferences as outlined in the Conference curriculum.
2. The resident will continue his/her home study course, becoming extremely proficient in all the topics in the Core Curriculum by the end of the year.
3. The resident will take the national in-service exam at the end of the calendar year.

**Teaching (Practice-Based Learning and Improvement):**
1. The resident will be responsible for daily teaching rounds on the inpatient service.
2. With the supervision of faculty, the Chief Resident will teach routine surgical procedures to junior-level residents.
3. The resident will present lecture in the Core Curriculum conference.
4. The resident will oversee the assignment and execution of instruction of other physicians, medical students, and allied health personnel.
5. The resident will have regular meetings with the Program Director regarding the residency training program.
System-Based Practice
The resident will learn about the larger context of health care by participating in a conference to assess, coordinate, and improve health care.
CONFERENCE CURRICULUM

Conferences will provide an interactive venue for learning. A complete understanding of the topics listed cannot be attained without active participation in each conference course. The conferences are required for the residents.

There will be no conferences during the AUA annual meeting, the months of June and July, in November over the Thanksgiving weekend, and the last week of December. An annual calendar will be provided with the conference dates. The number of conferences varies with the year.

DESCRIPTION OF THE CORE CURRICULUM CONFERENCE:
There are a total of 40 topics covering the breadth of urology in the American Urologic Association Core Curriculum; half will be covered the first year and half the second year. Since the urology portion of this program is four years in length, each resident should be exposed to each topic at least twice during his/her residency.

Topics:
Anatomy and Embryology
Urinary Tract Physiology and Pathophysiology
BPH
Prostatitis
Muscle Invasive Bladder Cancer
Non-Muscle Invasive Bladder Cancer
Prostate Cancer
Upper Tract Urothelial Tumors
Urethral Strictures
Urinary Diversion
Basic Research and Biostatistics
Basics of Evidence-Based Medicine and Clinical Trials
Clinical Ethics
Communication
Principles of Competency-Based Learning
The Business of Your Practice
Interstitial Cystitis (IC)/Painful Bladder Syndrome (PBS)
Male Urinary Incontinence and Voiding Disorders
Neurogenic Bladder: Voiding Dysfunction associated with Neurological Disease
Urinary Incontinence and Female Urology
Urodynamics
Erectile Dysfunction, Peyronie’s Disease and Priapism
Evaluation and Treatment of the Infertile Male
Basics of Urologic Laparoscopy and Robotics
Benign and Malignant Diseases of the Adrenal Gland
Benign and Malignant Neoplasms of the Kidney
Penile Cancer
Urethral Cancer
Testicular Cancer: Germ Cell Tumors
Pediatric Genital Anomalies
Pediatric Obstructive Urology
Pediatric Urologic Oncology
DESCRIPTION OF UROLRADIOLOGY CONFERENCE
The topic oriented Uroradiology conference is held weekly at the Veteran Affairs Medical Center and is taught by Dr. Naomi Mraz.

Topics - Year I
1. Basic principles of conventional radiographic procedures
   * IV urography techniques, retrograde and voiding cystourethrography
2. Plain Film Radiography
   * How to evaluate the “scout” film of the abdomen. Stones (and other calcifications), bones, mass (soft tissues), and gas
3. Basic principles of ultrasound
   * Includes examples of renal distinguishing hydronephrosis from cysts, cysts from neoplasms, stones, and Doppler for tumor vascularity and renal artery stenosis. (Testicular and prostate US will be examined in separate lectures).
4. Trauma to the urinary tract
5. CT and MRI of renal tumors
6. Pediatric uroradiology overview part I: benign disorders
7. Imaging of prostate cancer
   * Including diagnosis, staging, and post-operative follow-up of patients with rising PSA
8. Basic principles of MRI
9. Imaging of benign disorders of the prostate
   * Including BPH, prostatitis, and male infertility
10. Examination & review of exam

Topics - Year II
11. Basic Principles of Conventional Radiographic Procedures
12. Plan Film Radiogram
13. Renal Cystic Disorders
14. Trauma to the Urinary Tract
15. CT and MRI of Renal Tumors
16. Pediatric Uroradiology Overview Part I: Benign Disorders
17. Imaging of Prostate Cancer
18. Basic Principles of MRI
19. Imaging of Benign Disorders of the Prostate
20. Scrotal Imaging
21. Examination & Review of Exam

Record Keeping (to be maintained by the Chief Resident at the institution where conference is being held):
   a. Residents attendance
   b. Faculty attendance

DESCRIPTION OF UROPATHOLOGY CONFERENCE
The topic orientated Uro-pathology conference will be held at the Veterans Affairs Medical Center and will be taught by Dr. Carlos Manivel.

CPC (Clinical Pathologic conference) will take place at the Veteran Affairs Medical Center and be taught by Dr. Carlos Manivel.

There is required reading material to prepare for the conference that will be provided at least one week prior to the conference. For the CPC Conference, the Chief Resident must give the Surgical-Pathology Secretary a type-written list with the names and medical record numbers of cases to be presented; this list should be given to her at least one week before the conference.

There are a total of 20 core Uropathology conferences to be presented over a two year period. Since the urological portion of this residency is four years in duration, each resident will be exposed to these topics twice during his/her residency.

Topics - Year I
1. Diseases of the external Genitalia and perineum
2. Diseases of the testis and paratestes: ischemic, inflammatory and miscellaneous disorders
3. Diseases of the testis: Morphology of male infertility
4. Diseases of the testis: Germ cell tumors, Part I
5. Diseases of the testis: Germ cell tumors, Part II
6. Diseases of the testis: stromal, paratesticular and miscellaneous neoplasms
7. Diseases of the prostate gland and seminal vesicles: normal anatomy, atrophy, metaplasias, inflammatory disorders, hyperplasias
8. Diseases of the prostate gland and seminal vesicles: pre-neoplastic lesions, adenocarcinoma, and other neoplasms, Part I
9. Diseases of the prostate gland and seminal vesicles: pre-neoplastic lesions, adenocarcinoma, and other neoplasms, Part II
10. Evaluation I and Test

Topics – Year II
11. Diseases of the bladder, urethra, ureters, and renal pelvis: Inflammatory and metaplastic disorders
12. Diseases of the bladder, urethra, ureters and renal pelvis: neoplasia
13. Diseases of the kidney: developmental disorders and cystic disease
14. Diseases of the kidney: inflammatory disorders
15. Diseases of the kidney: tumors in adults; epithelial, mesenchymal, and metastatic neoplasms
16. Diseases of the kidney: tumors in pediatric patients
17. Diseases of the adrenal gland: cortex
18. Diseases of the adrenal gland: medulla
19. Urinary cytology
20. Evaluation II and Test

Record Keeping (to be maintained by the Chief Resident at the institution where conference is being held):
   a. Residents attendance
   b. Faculty attendance

DESCRIPTION OF MORBIDITY AND MORTALITY CONFERENCE
We learn from our mistakes: this is the basis of Morbidity and Mortality conference, held the 4th Wednesday of every month from 7:00-8:00 a.m. Each Chief Resident is responsible for accumulating the clinic and surgical census for each site every month. All complications and deaths are to be summarized in a narrative from and concluded with suggestions on how to avoid the adverse outcome. These cases will be discussed during this monthly conference.

Record keeping (maintained by the University Chief Resident):
   a. Residents attendance
   b. Faculty attendance
   c. Statistics and Cases morbidity and mortality discussion and conclusion

DESCRIPTION OF JOURNAL CLUB
Journal Club will be held on the third Wednesday of the month from 7:00 – 8:00am in the Mayo Building. Each month, faculty submits articles and four are chosen to be presented by a resident. The education coordinator will then electronically distribute the articles to every resident and faculty member with a cover letter stating the date of the next Journal Club and the articles/authors. It is the responsibility of each resident and faculty member to either go on-line to get the J.U. articles or use your Journal. You will be asked to present the article and answer any questions the faculty may have on any of the articles.

Record keeping (maintained by the University Chief Resident):
   a. Name of the articles discussed
   b. Faculty attendance
   c. Residents attendance

DESCRIPTION OF GRAND ROUNDS
Grand Rounds is held from 7:00 to 8:00 a.m. at the University of Minnesota on the first, second, fourth, and fifth (if applicable) Wednesdays of the month, September –May. It is a required conference for all residents. The purpose of Grand Rounds is to integrate uro-pathology, uro-radiology, recent literature, research, and the collective experience of the faculty members and visiting lecturers, as we discuss patient management. The general layout of Grand Rounds is as follows:
   • First, Second, and Fifth (if applicable) Wednesdays of the month are primarily case presentations of both adult and pediatric cases given by the residents.
   • Fourth Wednesday of the month is primarily a lecture given by either a faculty member of the Urology department or University of Minnesota or a visiting lecturer.

MINNESOTA UROLOGICAL SOCIETY
The Minnesota Urologic Society (M.U.S.) holds monthly meetings on the second Friday of the month in October, November, January, February, March, and organizes the Spring Seminar in April.
All residents are expected to attend each Pyelogram Conference. At least one resident is expected to present a case for each meeting and be prepared to discuss it. All residents are required to submit manuscripts for the Kelalis resident’s essay contest.

DEPARTMENTAL CONFERENCES ATTENDANCE POLICY

All residents are to be released from regular clinic duties for: Grand Rounds; Core Curriculum conference; Uropathology conference; Visiting Professors’ presentations; CPC conference; Journal Club; Uroradiology conference; Morbidity/Mortality conference; and Technical Skills Curriculum courses. Residents must be released 45 minutes before the conference starts for travel and preparation time.

It is critical that all residents attend departmental conferences unless on vacation or absent for illness, maternity/paternity leave, or a prior approved educational conference. Because conferences are short, residents must be there on time. It is understood that sometimes residents may be late because of traffic, clinical or surgical demands/emergencies, or for family reasons. Because it is important for residents to learn the material being presented at the conference, anyone more than 10 minutes late to Uropathology, Uroradiology, or the Core Curriculum conference (including Pediatric Core Curriculum topics presented at Grand Rounds) will be required to write a three to five page paper (approximately 1000 words) on the topic they were late for or missed. This is on the honor system: it is expected that a resident who is late by ten minutes or more will notify the Program Director—there are no exceptions to this. It is also the responsibility of the Urology moderator to notify the Program Director if a resident is more than ten minutes late. The Program Director in turn will notify the resident of the need to write a paper on the topic. The completed paper must be approved by both the presenter/moderator of the conference as well as the Program Director. This is not meant for punitive reasons, but to make sure the resident knows the material he/she missed. The paper must be completed within one month of the late/missed conference, or the resident will be placed on academic probation for inadequate demonstration of educational progress.

Accurate attendance of residents and faculty at conferences is essential. It is the responsibility of the Chief Resident at the University to keep attendance and evaluation records for Grand Rounds and the Wednesday conferences (Uropathology, Clinical Pathological conference, core curriculum conference, Uroradiology conference,). These records must be received by the Education Coordinator in the Educational Office by the following day. If the Chief resident is absent for whatever reason, responsibility for the attendance records goes to the most senior resident covering the service where the conference is being held.

Grand Rounds will be held every Wednesday from 7am to 8am at the University. Grand Rounds is meant to integrate uropathology, uroradiology and basic and clinical science as we discuss clinical cases. The chief resident at the VAMC is responsible for making sure there are at least four cases that can be presented at each Grand Rounds. A Uroradiologist and a Uropathologist are encouraged to be there. The order of presentations, assurance that the presenters are adequately prepared, and arrangements for attendance of the Uroradiologist and Uropathologist is the responsibility of the Chief Resident at the VAMC. If the Chief resident is absent for whatever reason, this becomes the responsibility of the most senior resident covering the VAMC. Once a month, there will be Pediatric conference. Again, this is meant to integrate uropathology, uroradiology, and core curriculum topics on pediatric cases. The Pediatric Chief Resident is responsible for case presentations for this conference.

RESEARCH PROJECTS

The Department has a strong basic and clinical research program and as such encourages residents to participate in research. To help learn what research is about and to encourage research, a half-day symposium will be held
in June. Research projects residents will be presented. A panel led by the Director of Urologic Research will comment on the research for instructional purposes. The research will also be judged for an award.

**SCHOLARLY ACTIVITY**
**RESIDENT SCHOLAR PRESENTATION**

**Purpose:** The Department of Urology strongly encourages residents to participate in research activities. We expect residents to learn the principles of study design, data analysis, and reporting the results. Residents can learn these principles by critiquing articles during Journal Club, going to special lectures by visiting faculty, attending Minnesota Urological Society meetings, and conducting basic or clinical research projects. As a part of these efforts, **ALL RESIDENTS ARE EXPECTED TO COMPLETE A SCHOLARLY PROJECT ONCE PER YEAR.**

**Specifics:**
1. The Third year research/special procedures resident at the VA must present his/her research project conducted during this rotation within three months of finishing the rotation.
2. All other presentations should be scheduled during the research day.
3. The following types of presentations are acceptable:
   a. Basic science research conducted by the resident.
   b. Clinical research conducted by the resident.
4. All seminars must be approved by a faculty member ahead of time. The residents must keep the advising faculty member apprised of progress and interact with the faculty member in its development.
5. Within a week of presentation, the resident should have a manuscript written on the research that is suitable for publication.

**TRAINING/GRADUATION REQUIREMENTS**

**THE AMERICAN BOARD OF UROLOGY REQUIREMENTS**

An applicant may initiate application for certification by the board during the final year of his or her residency training or at some point thereafter. For details of the certification process please see the the *Fifty-Seventh Edition* of the booklet: Information for Applicants and Candidates, 2010, published by the American Board of Urology, Inc.

Every applicant, however, must meet certain basic requirements as follows:

**A. Prerequisites**

1. **Education and residency:** The applicant must be a graduate of a medical school approved by the Liaison Committee on Medical Education or a school of osteopathy approved by the Bureau of Professional Education of the American Osteopathic Association, and have completed a urology residency program accredited by the Accreditation Council for Graduate Medical Education (ACGME) or Royal College of Physicians and Surgeons of Canada [RCPs(C)]. ACGME training programs in urology are described in the American Medical Association *Graduate Medical Education Directory*, Section II, “Essentials of Accredited Residencies in Graduate Medical Education: Institutional and Program Requirements.

2. **Postgraduate training requirements:** The American Board of Urology mandates a minimum of 5 clinical years of postgraduate medical training. Training must include:
   - 48 months in an ACGME-approved urology program
   - 3 months of general surgery in an ACGME-approved surgical program
☐ 3 months of core surgical training (e.g. intensive care unit, trauma, vascular surgery, cardiac surgery, etc.) in an ACGME-approved surgical program
☐ 6 months of other rotations, not including dedicated research time, in an ACGME- or RCPS(C)-approved core surgery program

All rotations listed above that are not part of the core urology training must have been approved by the candidate’s program director. As part of the core urology training, the candidate must have completed at least 12 months as a chief resident in urology with the appropriate clinical responsibility and under supervision in institutions that are part of an ACGME approved program.

To be admissible to the Certifying (Part 2) Examination, a Canadian trained candidate must be certified by the RCPS(C). Medical graduates from schools outside the United States or Canada who provide an equivalent medical background and who have completed an ACGME-approved urology residency in the United States may qualify for examination by the American Board of Urology. All such applicants must have a valid certificate from the Education Committee for Foreign Medical Graduates (ECFMG).

All rotations listed above that are not part of the core urology training must have been approved by the candidate’s program director. As part of the core urology training, the candidate must have completed at least 12 months as a chief resident in urology with the appropriate clinical responsibility and under supervision in institutions that are part of an ACGME-approved program.

A resident must work 46 weeks each year of residency; that is one year of credit must include at least 46 weeks of full-time urologic education. If a circumstance occurs in which a resident does not work the required 46 weeks in one year, the program director must submit a plan to the ABU for approval on how the training will be made up, which may require an extension of residency.

To be admissible to the certification process of the Board, the resident must have completed in a satisfactory manner the training requirements of his or her specific program in effect at the time of acceptance in the program, as established by the Residency Review Committee for Urology or the Accreditation Committees of the RCPS(C).

**TRAINING/GRADUATION REQUIREMENTS (SATISFACTORILY)**

The successful resident in this program will exhibit:

- Self motivation to assume responsibility and achieve excellence
- Solid ethical standards
- Good communication skills and desire to work as part of a team
- Interest and practicing excellence in clinical medicine, research, and teaching
- Outstanding surgical skills

**ACGME (Accreditation Council for Graduate Medical Education) Program Requirements**

For the complete listing of all ACGME Urology Program Requirements, please follow the link below to the ACGME website:

[http://www.acgme.org/acWebsite/RRC_480/480_prIndex.asp](http://www.acgme.org/acWebsite/RRC_480/480_prIndex.asp)

**ACGME COMPETENCIES**

All University of Minnesota Medical School Residency/Fellowship training programs define the specific knowledge, skills, attitudes, and educational experiences required by the RCC to ensure its residents/fellows...
demonstrate the following:

**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.

**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.

**Practice-based Learning and Improvement** – Residents must demonstrate the ability to investigate and evaluation 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:
- identify strengths, deficiencies, and limits in one’s knowledge and expertise;
- set learning and improvement goals;
- identify and perform appropriate learning activities;
- systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement;
- incorporate formative evaluation feedback into daily practice;
- locate, appraise, and assimilate evidence from scientific studies related to their patients’ health problems;
- use information technology to optimize learning; and,
- participate in the education of patients, families, students, residents and other health professionals.

**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 are expected to:
- Communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds;
- Communicate effectively with physicians, other health professionals, and health related agencies;
- Work effectively as a member of leader of a health care team or other professional group;
- Act in a consultative role to other physicians and health professionals; and,
- Maintain comprehensive, timely, and legible medical records, if applicable.

**Professionalism** – Residents must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles. Residents are expected to demonstrate:
- Compassion, integrity, and respect for others;
- Responsiveness to patient needs that supersedes self-interest;
- Respect for patient privacy and autonomy;
- Accountability to patients, society and the profession; and,
- Sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation.

**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 are expected to:
- work effectively in various health care delivery settings and systems relevant to their clinical specialty;
- coordinate patient care within the health care system relevant to their clinical specialty;
- incorporate considerations of cost awareness and risk-benefit analysis in patient and/or population-based care as appropriate;
- advocate for quality patient care and optimal patient care systems;
- work in interprofessional teams to enhance patient safety and improve patient care quality; and,
- participate in identifying system errors and implementing potential systems solutions.
NEW INNOVATIONS RESIDENCY MANAGEMENT SUITE EVALUATION SYSTEM

The Department of Urology uses the New Innovations Residency Management Suite for evaluations. You will be assigned a login and password to access your pending evaluations. This system allows faculty to evaluate residents, and residents to evaluate faculty (this is strictly confidential), as well as the rotation and site itself. A complete set of instructions will be given to you each year on or around July 1st. You will be responsible to have these available to enter the data in the RMS system.

EVALUATION

Resident Evaluation
The program should develop mechanisms for residents to demonstrate the acquisition of fundamental knowledge, attitudes, and skills necessary for current urologic practice. Each program must develop and use specific performance measures such as in-service examinations. At the conclusion of the educational program, residents should be qualified to provide competent care.

Written evaluations of resident performance are required at least semiannually and must be reviewed formally and communicated in a timely manner to the resident. Subsequent analysis of these evaluations should guide the program director and faculty in judging the strengths and weaknesses of individual residents.

Residents must be advanced to positions of higher responsibility based on evidence of their satisfactory progressive scholarship and professional growth.

A permanent record of evaluation for each resident must be maintained and must be accessible to the resident and other authorized personnel.

Each resident must be provided with a written final evaluation. This evaluation must include a review of the resident’s performance during the final period of education and should verify that the resident has demonstrated the ability to practice competently and independently. This final evaluation should be part of the resident's permanent record maintained by the institution.

Faculty Evaluation
The teaching ability, commitment, clinical knowledge, and scholarly activities of faculty require review and confidential evaluation at least annually. A summary of the review must be communicated directly to each faculty member by the program director. Confidential resident evaluation must be a part of this review.

Program Evaluation
The educational effectiveness of the program must be evaluated in a systematic manner. In particular, the quality of the curriculum and the extent to which educational goals have been met by residents must be assessed. Written confidential evaluations by residents should be utilized in this process.

Programs must conduct and document evidence of periodic evaluations of the entire program at all participating institutions, to include:
- Evidence of satisfactory attainment of educational goals;
- Attention to the needs of the residents, especially regarding the balance between educational and service components of the program;
- Adequate performance of teaching responsibilities by the faculty;
- Performance of residents on examinations such as the in-service examination and the American Board of
Urology Qualifying (Part I) and Certifying (Part II) Examinations.
One measure of the quality of a program is the performance of its graduates on the examinations given by the American Board of Urology. The RRC may consider this information as part of the overall evaluation of the program.

**Board Certification**
Residents who plan to seek certification by the American Board of Urology should communicate with the executive secretary of the board to be certain of the requirements for acceptance as a candidate for certification.

**EVALUATION SYSTEM**
The Urology Training Program is committed to comprehensive, regular, timely evaluation of the educational and professional performance of the urology residents. The following explains the purpose, components and methodology of the resident evaluation system.

**Purpose:**
- To provide information on the quality of the residents.
- To make informed decisions on resident promotion/progress.
- To provide data to specialty boards for certification.
- Identify performance deficits to improve resident performance.
- Identify program strengths and weaknesses and target areas for modification in the curriculum.

To properly evaluate a resident's performance the assumptions must be clearly stated. By doing so, the foundation is laid for the evaluation of the progress of the resident and for determining the effectiveness of the program to educate residents.

The resident must demonstrate efforts to develop themselves to the high level of performance expected of a specialist in urologic surgery while functioning in an environment where they are an integral part in providing service to the patient. To do so they are expected to:

- Develop a personal program of self-study and professional growth with guidance from the teaching staff.
- Participate in safe, effective and compassionate patient care under supervision, commensurate with their level of responsibility.
- Participate fully in the education activities of the program and as required, assume responsibility for teaching and supervision of other residents and students.
- Participate in institutional programs, activities involving other medical staff and adhere to established practices, procedures, and policies of the institutions.
- Serve on institutional committees and councils, especially those that relate to patient care review activities.
- Apply cost containment measures in the provision of patient care.

Our goal is to prepare the trainee to function as a qualified practitioner of urologic surgery at the highest level of performance expected of a specialist. The resident must be committed to provide an exemplary quality of service to patients, performed in conjunction with educational activities in order to graduate as a well rounded, knowledgeable and highly qualified surgeon. In order to accomplish these goals, the following objectives must be attained:

Acquire a solid foundation of fundamental urologic surgery knowledge. This is done through self-study, an organized Core Curriculum, conferences (both departmentally and institutionally) and specific service along with close association with faculty. An understanding of biology as it relates particularly to disorders of a surgical nature and an understanding of the etiology, pathogenesis, diagnosis and management of urologic disorders is absolutely necessary for completion of the program. Use sound surgical judgment, think rationally.
and use the literature to solve problems. Achieve a satisfactory level of critical skill prior to completion of the program. The resident should have superb history and physical examination skills, should do an appropriate diagnostic work-up with an understanding of the tests to be ordered, and will be able to develop a management plan. All will be done efficiently and in an organized manner. Exhibit good technical skills commensurate with residency level. The resident should be prepared, show initiative and be willing to accept direction in clinic and the operating room. The resident must maintain the highest moral and ethical values and demonstrate a mature attitude. The resident should be trustworthy, conscientious and maintain professional attitude both in demeanor and attitude. Being sensitive to the needs and feelings of others be it faculty, administrative staff, patients, family members or fellow residents is also necessary. Acquire good teaching skills. The resident should be willing to question and answer questions of students and junior residents. The resident should consistently create a supportive learning environment for all learners.

These goals are attained by a progressively graded clinical and operative experience. Within the limits of variability found in clinical practice an equivalent opportunity will be afforded each resident. Under the guidance and supervision of a qualified teaching staff, to develop the degree of mature surgical judgment and operative skill to render themselves prepared to provide urologic surgical care to patients with urological disorders. The teaching staff supervising the resident will make the assessment of achieving this goal.

**METHODOLOGY OF EVALUATION**

The method used to achieve a broad, reliable and valid evaluation on the competency of each resident includes:

- Rotation evaluation forms
- Grand Rounds presentation and other conference presentations
- The American Board of Urology (AUA) Inservice Exam
- The quality and timeliness of Surgical Logs in the ACGME database
- Conference attendance and performance
- Teaching performance

The rotation evaluation forms are designed to effectively assess the performance of the resident in categories of urological surgery knowledge, surgical judgment, ward performance, technical skills, personal characteristics, and teaching skills. The evaluator is also asked whether the evaluation is based on extensive, moderate or occasional observation.

The resident is evaluated on conference performance.

The AUA Inservice Exam is an objective method used to evaluate the cognitive knowledge of the resident. In general, we expect the resident to score above the 30th percentile nationally at his/her level of training each year.

**RESIDENT EVALUATION COMMITTEE**

The Resident Evaluation Committee was created and serves to oversee the residency program and helps the Program Director make the necessary change(s) to keep the residency program in compliance with the guidelines of the RRC, ACGME, and American Board of Urology. They will meet bi-annually (generally in January and July) and will review all evaluations submitted regarding the resident's performance. This includes evaluations from other participating institutions and from the chief residents regarding the junior residents. They will also review the faculty teaching performance evaluation. The Committee reports directly to the Department Chair and will make recommendations to the Chair.

Composition:
The program director, the associate program director, one representative from each of the Major Participating Sites, and one resident representative. It is presided by the Program Director or the Associate Program Director under certain circumstances. Each person has equal voice and vote. The Committee will be meeting in months January and July of the academic year; this will ensure if a resident is having difficulty at their site, the problem would be addressed before the end of that rotation. Information that must be available for the meeting:

a. Print out from the resident surgical log (submitted by the residents).
b. Faculty evaluation of resident’s performance available through ACGME evaluation system.
c. Resident evaluation of faculty performance (submitted by the residents via ACGME evaluation system).
d. Complaints - or any evaluation with a mark of 1-2 in categories shall be addressed.
e. A typed evaluation will be generated by Education Committee and reviewed with resident as noted below.

Non-compliance in supplying all the information by the residents for two consecutive meetings or for three meetings in two years may result on being placed on probation, no renewal of the contract, or expulsion from the program. The committee may recommend this to the Program Director and/or the Chair.

Non-compliance in supplying all the information by the Faculty for two consecutive meetings or for three meetings in two years may result in reprimand and written report on his/hers academic permanent record. Non-compliance in supplying all the information by the Major Participating Institution for two consecutive meetings or for three meetings in two years may result in reprimand, placed on probation, or being dropped as training center. The committee may recommend this to the Program Director and/or the Chair.

An assessment by the Resident Evaluation Committee must be generated bi-annually of:
a. Individual resident performance
An assessment by the Resident Evaluation Committee must be generated annually of:
a. Residency program performance in general
b. Major Participating Institution performance
c. Faculty performance as a resident teacher

The discussion on each resident is brought to conclusion with one of the following recommendations:
a. Advancement with statement of exemplary performance and areas that need development.
b. Advancement with statement of deficiencies to be improved.
c. Advancement with notification of one year probation and statement of deficiencies to be improved.
d. No advancement with one year probation and discussion of alternative career choices.
f. Unsatisfactory performance and dismissal from the program.

A typed evaluation will be generated by the Resident Evaluation Committee and reviewed with the resident as noted below.

**PERIODIC RESIDENT/PROGRAM DIRECTOR MEETING**

Two times per year, the Program Director and Chair, or Chair, Or Program Director will meet with each resident to discuss academic, educational and personal matters. Each resident will be expected to attend these meetings. It is the residents’ responsibility to arrange this meeting with the Chair’s secretary, one meeting in January and one in June/July. The resident is able to meet with the Chair or Program Director at any time during their residency as well, if there are issues that cannot wait.

**DUTY HOURS**

Duty hours are defined as all clinical and academic activities related to the program; i.e., patient care (both inpatient and outpatient), administrative duties relative to patient care, the provision for transfer of patient care;
time spent in-house during call activities, and scheduled activities, such as conferences. Duty hours do not include reading and preparation time spent away from the duty site.

• Max Hours per Week
  o Duty hours must not exceed 80 hours per week averaged over a four week period inclusive of call
  o Trainees in their final years of education (Uro-3s and Uro-4s) must be prepared to enter the unsupervised practice of medicine and care for patients over irregular or extended periods within the context of the 80 hour max.

• Continuous Duty Hours
  o PGY-2 trainees and above: must not exceed 24 hours. Trainees may spend an additional 4 hours to complete transitions in care. Residents may not attend continuity clinics after 24 hours of continuous in-house duty. Trainees must have at least 14 hours free after 24 hours of in-house duty

• Duty Hour Exceptions
  o Duty hour exceptions of 88 hours per week averaged over a four week period for select programs with sound educational rationale are permissible. Program must obtain permission from the Designated Institution Official and Graduate Medical Education Committee prior to submission to their Review Committee.

• Mandatory Time Free of Duty
  o Trainees must have a minimum of one day free of duty every week (when averaged over four weeks). At home call cannot be assigned during this time.
  o Intermediate-level residents (Uro-1s and Uro-2s) should have 10 hours and must have eight hours free between duty periods. There must be at least 14 hours free of duty after 24 hours of in-house duty.

• Maximum Duty Period Length
  o Duty periods of PGY-2 residents and above may be scheduled to a maximum of 24 hours of continuous duty in the hospital. Programs must encourage residents to use alertness management strategies in the context of patient care responsibilities. Strategic napping, especially after 16 hours of continuous duty and between the hours of 10:00 p.m. and 8:00 a.m., is strongly suggested.
    ▪ It is essential for patient safety and resident education that effective transitions in care occur. Residents may be allowed to remain on-site in order to accomplish these tasks; however, this period of time must be no longer than an additional four hours.
    ▪ Residents must not be assigned additional clinical responsibilities after 24 hours of continuous in-house duty.
    ▪ In unusual circumstances, residents, on their own initiative, may remain beyond their scheduled period of duty to continue to provide care to a single patient. Justifications for such extensions of duty are limited to reasons of required continuity for a severely ill or unstable patient, academic importance of the events transpiring, or humanistic attention to the needs of a patient or family.
  o Under those circumstances, the resident must:
    ▪ appropriately hand over the care of all other patients to the team responsible for their continuing care; and,
    ▪ document the reasons for remaining to care for the patient in question and submit that documentation in every circumstance to the program director.
  o The program director must review each submission of additional service, and track both individual resident and program-wide episodes of additional duty.

• Minimum Time off between Scheduled Duty Periods
Intermediate-level residents (Uro-1s and Uro-2s) should have 10 hours free of duty, and must have eight hours between scheduled duty periods. They must have at least 14 hours free of duty after 24 hours of in-house duty.

Residents in the final years of education (Uro-3s and Uro-4s) must be prepared to enter the unsupervised practice of medicine and care for patients over irregular or extended periods.

- This preparation must occur within the context of the 80-hour, maximum duty period length, and one-day-off-in seven standards. While it is desirable that residents in their final years of education have eight hours free of duty between scheduled duty periods, there may be circumstances when these residents must stay on duty to care for their patients or return to the hospital with fewer than eight hours free of duty.

- The Review Committee defines such circumstances as: required continuity of care for a severely ill or unstable patient, or a complex patient with whom the resident has been involved; events of exceptional educational value; or, humanistic attention to the needs of a patient or family.

- Circumstances of return-to-hospital activities with fewer than eight hours away from the hospital by residents in their final years of education must be monitored by the program director.

**Call**

- **At-Home Call**
  - Time spent in the hospital must count towards the 80 hour week limit. At home call is not subject to the every third night limitation however trainees must receive one-in-seven free of duty when averaged over a four week period.
  - At home call should not be so frequent or taxing to preclude rest or reasonable personal time for each resident
  - Trainees are permitted to return to the hospital while on at-home call to care for new or established patients. Each episode of this type of care, while it must be included in the 80 hour weekly maximum will not initiate a new off-duty period

**Alertness Management/Fatigue Mitigation**

- The program must:
  - educate all faculty members and residents to recognize the signs of fatigue and sleep deprivation;
  - educate all faculty members and residents in alertness management and fatigue mitigation processes; and,
  - adopt fatigue mitigation processes to manage the potential negative effects of fatigue on patient care and learning, such as naps or back-up call schedules.

Each program must have a process to ensure continuity of patient care in the event that a resident may be unable to perform his/her patient care duties. The sponsoring institution must provide adequate sleep facilities and/or safe transportation options for residents who may be too fatigued to safely return home.

**Transitions of Care**

Programs must design clinical assignments to minimize the number of transitions in patient care. Sponsoring institutions and programs must ensure and monitor effective, structured hand-over processes to facilitate both continuity of care and patient safety. Programs must ensure that residents are competent in communicating with team members in the hand-over process. The sponsoring institution must ensure the availability of schedules that inform all members of the health care team of attending physicians and residents currently responsible for each patient’s care.

**Teamwork**
Residents must care for patients in an environment that maximizes effective communication. This must include the opportunity to work as a member of effective interprofessional teams that are appropriate to the delivery of care in the specialty. Each resident must have the opportunity to interact with other providers such as nurses, other specialists, social workers, and mid-level providers.

**Recording and Reporting Duty Hours**

In accordance with the Updating and approving assignments and hours in the duty hours module of the Residency Management Suite (RMS) trainees are required to accurately record their duty hours on a daily basis in RMS.

**Reporting Duty Hour Violations**

In accordance with the Institution Duty Hour Monitoring Policy trainees concerned about continuous duty hour violations by their program can contact the Designated Institution Official or send a confidential email to gmedhv@umn.edu.

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**ON-CALL SCHEDULES**

Call during daytime hours during the week at UMMC is by the junior residents at UMMC. Hours of coverage are from 7:00 am-5:00 pm. The senior resident provides backup coverage to the junior residents after hours on an every fourth night rotation. The senior resident designates another senior resident (Uro Y3 or Y4) to cover when he/she is not available. The junior resident shares after-hours first call as described in the following:

After hours (evening and weekend) first call is shared by the six junior residents. First call coverage for UMMC, VA, and Children’s Hospital is provided. Each month, evening and weekend call is divided equally between the six junior residents. Hours of coverage are evenings from 5:00 pm -7:00 am Monday through Thursday (14 hours). The weekend call is from 7:00 am Friday through 7:00am Monday (72 hours).
Given the above, 128 hours of week coverage is divided equally between 6 residents (approximately 21 hours of after hours call per week). Since the average month is 4.35 weeks in duration, each junior resident averages 91.5 hours of evening and weekend call per month.

The senior urology resident is responsible for coverage of all urology inpatient care at their site. He/She works with the junior resident to cover the daily care of inpatients under the guidance of the urology staff. Hours of work usually consist of 50 hours per week (daytime hours) and an additional 3 hours per week for in-house call coverage. The senior resident is always available on pager for back-up call at all sites. Each on call resident and back up resident will have their pagers with them at all times. It is imperative that each page you receive be addressed immediately.

**Protocol for on-call:**
If a patient is being admitted or for new consults:
1. Junior calls Chief Resident
2. Chief resident evaluates patient—their decision whether this is over-the-phone or in-person, though if imaging is involved, they should have reviewed the images personally. Similarly if examination is critical (torsion, fournier’s, etc.) they should examine the patient
3. Chief Resident calls attending

While on rotation at HCMC, the Uro-3 residents will take back-up call on average every third night and weekend for their four months on rotation at the site. The resident calls the attending as needed.
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VA Hospital/Children’s Hospital (St. Paul) - Night Call Template

**Department:** UROLOGY  
**Service Title:** Junior Resident  
**Time:** 5PM-6AM M-F  
6AM-6AM SAT/SUN/HOL

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ON CALL ROOMS
The program director must establish an environment that is optimal both for resident education and for patient care, while ensuring that undue stress and fatigue among residents are avoided. It is his or her responsibility to ensure assignment of appropriate in-hospital duty hours so that residents are not required to perform excessively difficult or prolonged duties regularly. It is desirable that residents’ work schedules be designed so that on average, excluding exceptional patient care needs, residents have at least 1 out of 7 free of all duties and be on call no more that every third night. During these on-call hours residents should be provided with adequate sleeping, lounge and food facilities. There must be adequate backup so that patient care is not jeopardized during or following assigned periods of duty.

ROTAION SCHEDULE

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DESCRIPTION OF EDUCATIONAL PROGRAM SITES

A well rounded relevant education experience has been established with the University of Minnesota Medical Center, the University of Minnesota, the Minneapolis VA Health Care System, Children’s Hospital, Hennepin County Medical Center, and Fairview Southdale Hospital.

• UNIVERSITY OF MINNESOTA MEDICAL CENTER-FAIRVIEW (UMMC)
University of Minnesota Medical Center – Fairview, a major hospital affiliate of the Urology Residency Training Program, provides the nucleus of the program with clinical education experience for medical students, residents, and fellows. At UMMC there are thirteen full-time faculty and two clinical faculty. In addition, we have three PhDs. Affiliation with reproductive biologists and geneticists through a joint venture with the Ob-Gyn Department through the Reproductive Medicine Center has broadened the scope of our research still further. There is one PGY-2, two PGY-3s, and two PGY-5s resident on the adult rotation at UMMC. In addition, medical students rotate on the urology service.

• MINNEAPOLIS VA HEALTH CARE SYSTEM (MVAHCS)
The Minneapolis VA Health Care System is six miles from UMMC. Inpatient Services consists of one full-time and four part-time staff with four assistants and clinic personnel. The resident compliment consists of two PGY-2s, one PGY3, PGY-4, and one PGY-5. In addition, medical students rotate on the urology service.
- **CHILDREN’S HOSPITAL**
  Children’s Healthcare St. Paul is located eight miles from UMMC. Two pediatric urologists cover Children’s Healthcare and the service at University of Minnesota Medical Center. The resident compliment consists of one PGY-4 resident and one medical student.

- **HENNEPIN COUNTY MEDICAL CENTER (HCMC):**
  HCMC is located across the Mississippi river from the University of Minnesota, Minneapolis campus. HCMC is a major teaching hospital located in Downtown Minneapolis and was the first Level 1 trauma center in Minnesota. The urology program has 2 full-time staff urologists and 1 full-time, dedicated urology health professional. The resident compliment at HCMC is 1 PGY-1 General Surgery/Transitional resident and the PGY-4 Urology resident as Chief as well as 2 medical students.

- **FAIRVIEW SOUTHDALE HOSPITAL**
  Fairview Southdale Hospital is approximately 10 miles from UMMC. The Urology service has five full-time and two part-time physicians. The resident compliment at FVSH is 1 PGY-5 resident.

**SUPPORT SERVICES**

Patient support services, such as intravenous services, phlebotomy services, and laboratory services, as well as messenger and transporter services, must be provided in a manner appropriate to and consistent with education objectives and patient care.

**LABORATORY/PATHOLOGY/RADIOLOGY SERVICES**

There must be appropriate laboratory, pathology, and radiology services to support timely and quality patient care in the program. This must include effective laboratory, pathology, and radiologic information systems.

**MEDICAL RECORDS**

A medical records system that documents the course of each patient’s illness and care must be available at all times and must be adequate to support quality patient care, the education of the residents, quality assurance activities, and provide a resource for scholarly activity. At no time should charts be taken off the premises.

**SECURITY/SAFETY**

Security concerns at the University of Minnesota should be directed to 273-4445. Please see affiliated hospital for more specific information.

**MOONLIGHTING**

*Moonlighting is not allowed in the Department of Urology while an active resident.* We consider this a potential interference with the residents’ urology training experience.
SUPERVISION

In the clinical learning environment, each patient must have an identifiable, appropriately-credentialed and privileged attending physician (or licensed independent practitioner as approved by each Review Committee) who is ultimately responsible for that patient’s care.

- This information should be available to residents, faculty members, and patients.
- Residents and faculty members should inform patients of their respective roles in each patient’s care.

The program must demonstrate that the appropriate level of supervision is in place for all residents who care for patients.

Supervision may be exercised through a variety of methods. Some activities require the physical presence of the supervising faculty member. For many aspects of patient care, the supervising physician may be a more advanced resident or fellow. Other portions of care provided by the resident can be adequately supervised by the immediate availability of the supervising faculty member or resident physician, either in the institution, or by means of telephonic and/or electronic modalities. In some circumstances, supervision may include post-hoc review of resident delivered care with feedback as to the appropriateness of that care.

LEVELS OF SUPERVISION

To ensure oversight of resident supervision and graded authority and responsibility, the program must use the following classification of supervision:

- Direct Supervision – the supervising physician is physically present with the resident and patient.
- Indirect Supervision:
  - with direct supervision immediately available – the supervising physician is physically within the hospital or other site of patient care, and is immediately available to provide Direct Supervision.
  - with direct supervision available – the supervising physician is not physically present within the hospital or other site of patient care, but is immediately available by means of telephonic and/or electronic modalities, and is available to provide Direct Supervision.
  - Oversight – The supervising physician is available to provide review of procedures/encounters with feedback provided after care is delivered.

The privilege of progressive authority and responsibility, conditional independence, and a supervisory role in patient care delegated to each resident must be assigned by the program director and faculty members.

- The program director must evaluate each resident’s abilities based on specific criteria. When available, evaluation should be guided by specific national standards-based criteria.
- Faculty members functioning as supervising physicians should delegate portions of care to residents, based on the needs of the patient and the skills of the residents.
- Senior residents or fellows should serve in a supervisory role of junior residents in recognition of their progress toward independence, based on the needs of each patient and the skills of the individual resident or fellow.

Programs must set guidelines for circumstances and events in which residents must communicate with appropriate supervising faculty members, such as the transfer of a patient to an intensive care unit, or end-of-life decisions.

- Each resident must know the limits of his/her scope of authority, and the circumstances under which he/she is permitted to act with conditional independence.

Faculty supervision assignments should be of sufficient duration to assess the knowledge and skills of each resident and delegate to him/her the appropriate level of patient care authority and responsibility.

CLINICAL RESPONSIBILITIES

The clinical responsibilities for each resident must be based on PGY-level, patient safety, resident education, severity and complexity of patient illness/condition and available support services.
• **OUTPATIENT CLINIC CARE**
As part of the learning experience, residents are expected to see patients in clinic to obtain a history, physical examination, and formulate a treatment plan. These plans are then presented to the clinic faculty member for discussion and teaching purposes. All patients seen by a resident at UMMC, HCMC, FV Southdale or on the pediatric service must then be seen by a faculty member and documentation, including a signature, provided. It is understood at the VAMC not all patients seen by the resident can be seen by the faculty member. However, in this clinic there has to be an attending present in clinic for discussion of any questions. It is expected that more junior residents will need more direct faculty involvement in clinic at the VA Medical Center.

• **EMERGENCY ROOM CONSULTATION**
Patients seen in an Emergency Room setting by a urology resident must also be seen by either an Emergency Room physician or a urology faculty member and the chart documented (including a signature) by the ER physician or urology faculty member. If a patient seen in the Emergency Room is not seen by a urology faculty member, the encounter needs to be presented to a urology faculty member within a 24-hour period.

• **SURGERY**
At UMMC, HCMC and FV Southdale and on the pediatric service, patients must be seen by the attending prior to going into the operating room. At VAMC, all preoperative patients are to be reviewed and approved for surgery by faculty at indications conference. On the day of surgery all patients need faculty approval and be seen and the consent obtained by the resident before the patient can go to the OR. If there were any questions as to a change in indications or patient concerns on the day of surgery, they must be seen by an attending before going to the OR. At all institutions, faculty members need to be called immediately prior to starting the case so that they can be present at the beginning if they desire. Faculty members must be present in the operating room for the “main part” of the surgical case. In addition, they must be immediately available by pager and/or phone if any emergency or question arises during the non-critical periods of the case.

• **INPATIENT**
All urology patients must be rounded on daily by faculty members and each patient discussed with a resident. All charts need documentation of daily rounds by a faculty member.

• **INPATIENT CONSULTATION**
All non-emergent consultations **must be seen** by the resident the day the consult was generated or, if after hours, the next morning by the rounding resident. **The residents must see all consults. No “curbside consults” allowed.** A note is written and the faculty member on call must see the patient, discuss the case with the resident, and provide chart documentation within 24 hours that the consult was generated. All emergent consults need to be seen immediately by the resident and discussed with a faculty member over the phone. The faculty member can elect to come in or see the patient within a 24-hour period.

• **WEEKEND ROUNDS**
The Chief resident on call for the weekend will make rounds with the junior resident at the VA. The staff on call will be paged once the residents make rounds to be updated with the patients, and are also expected to round if there is any unstable patient or any problem. A note on the chart should document the discussion with the staff.

**PGY-2 Year**
1.Total patient care: The goal of the PGY-2 (Uro-1) year is to begin learning the basics of adult urology. This includes obtaining and presenting urologic history, performing the examination, and formulating an appropriate management plan. The resident will learn and become proficient at some of the more basic urologic operations as noted below and will assist in more complex procedures. The resident has responsibility for admission of new patients as direct or emergency room admissions, initial evaluation and differential diagnosis and formulation of a preliminary plan of care for consults and admissions. This plan of care is formulated along with direction from the
Chief Resident and subsequently approved by faculty responsible for the patient. The resident will participate in the outpatient clinics at the VA Hospital and UMMC. The PGY-2 resident will participate in the operating room as primary surgeon, and when a senior resident is present, as an assisting surgeon on major surgical cases. This resident is expected to:

- Obtain a comprehensive history and perform a physical exam that includes all organ systems on patients admitted or referred to the urology service;
- Learn basic cystoscopic surgery, ureteroscopy and scrotal and testis open cases. Learning to place and manage urethral (Foley) catheters is an essential part of this year;
- manage the preoperative and postoperative oral nutrition, electrolyte and hydration needs of urological patients undergoing surgery; and
- improve technical skills and utilize the transurethral resection of prostate simulator at the SimPortal center and begin training to pass the Fundamentals of Laparoscopy course.

2. Continuity of care

- The PGY-2 resident will complete an 8-month rotation at the VA and 4-month rotation at the UMMC ensuring that the resident is fully immersed in the comprehensive care of patients that are admitted to the urology service.
- The resident assumes responsibility of all patients on the service and will examine those patients at least twice every day. There is absolute continuity during the day as the resident remains the first point of contact for the nursing staff. Overnight cross coverage is provided, but continuity is maintained by a rigorous system of verbal and written sign-outs to the covering resident on a daily basis. The sign-outs occur at the commencement of night call and on resumption of daytime coverage in the morning or after the weekend hours.
- The residents will routinely cover the clinics of the oncology, general urology and infertility staff as per the direction of the chief residents ensuring that additional continuity on discharged and pre-admission patients is maintained for several months in many cases. At the VA outpatient clinics, these residents cover general urology clinics that are inclusive of all urological specialties and will often follow the same patients regularly throughout their tenure in residency.

3. Night/weekend duty (all call is home call)

- The call schedule is structured so that UMMC residents are solely responsible for call at that facility ensuring complete continuity in patient care and resident familiarity will patient care events during the call night. VA residents and the HCMC resident are similarly responsible for call at their facility only.
- Residents are expected to sign-out the patients under their care to the on-call resident overnight and during weekend hours. A verbal and written sign-out is required at the commencement of night or weekend call, and a repeat sign-out is required at the end of the night or weekend call prior to rounds on the following morning.
- During night and weekend duty, residents are expected to be the first point of contact for the patient, hospital wards, and the emergency room. They are closely supervised by the senior resident, Chief Resident and on call faculty urologist depending on the complexity of patient care events.
- Residents evaluate patients by performing a detailed history and physical examination and order appropriate investigational studies and labs as well as other medications as needed under the guidance of the Chief Resident on call.

4. Long term care

- The PGY-2 resident is responsible for coordinating the long-term disposition and requisite care for patients discharged from the urology service. Working with social workers, outpatient rehabilitation and long-term care facilities is required.
- Residents will continue to follow patient from the PGY-2 until PGY-5 patients while staffing the VA outpatient clinics as well as clinics at the Institute for Prostate and Urological Cancers at the UMMC. While these patients are not assigned to a particular resident, the regularity of clinic experience ensures a level of exposure and continuity.
- PGY-2 residents will be responsible for accepting outpatient patient phone calls during the day when nursing staff is unavailable and during the on call hours after-hours. These call queries are discussed with the Chief Resident or responsible faculty member at the point-of-contact or by placing a notation in the electronic medical record for non-urgent issues.
PGY-3 Year

1. Total patient care: The goals of the PGY3 resident, who spends 8 months at the UMMC at 4 months at the VA Hospital, is to learn to independently diagnose and treat urologic problems in adults and to be proficient at more complex surgical procedures. At the completion of the academic year the residents will have studied the second half of a detailed curriculum provided in the resident program manual through an extensive conference schedule and continued their education in research and learning how to teach basic urology to the junior resident and medical students. At the UMMC, the resident will focus on the management of renal/ureteral stones, as well as reconstructive and female urology, while continuing to take on greater responsibility in clinical decision making and in the operating room. The PGY3 resident will:

- perform and support the PGY2 resident in obtaining a comprehensive and focused urologic history on patients admitted to the urology service and inpatient consultations received. These will be discussed with the Chief Resident, and often, directly with the relevant faculty attending;
- proficiently perform cystoscopy, ureteral catheterization, endoscopic prostatic surgery and ureteroscopy, ESWL, penile surgery including tunica platement and insertion of inflatable penile prosthesis surgery;
- resident will assist the senior resident and/or attending physician with more complex operations as assigned by the Chief Resident;
- The PGY3 resident will assume a greater role in teaching of medical students in the basics of inpatient care as well as urological disease pathophysiology;
- Accurately interpret diagnostic imaging including CT, IVU, US and MRI for the diagnosis of urological abnormalities;
- effectively manage urologic complications including intra-abdominal and retroperitoneal bleeding, sepsis, pneumonia and pulmonary embolus.

2. Continuity of care

- Two PGY3 residents are on service at UMMC and one PGY3 resident at the VA Hospital during the academic year, requiring close communication and comprehensive sign out process as outlined for the PGY2 resident above. The same transfer of care at night/weekends and then on resumption of the service during the day applies;
- The PGY3 residents will preferentially staff the stone disease and reconstructive urology clinics, providing an opportunity for pre and post operative followup in the outpatient setting, and ensuring continuity of care;

3. Night/weekend duty (All call is home call)

- Residents are expected to sign-out the patients under their care to the on-call resident overnight and during weekend hours. A verbal and written sign-out is required at the commencement of night or weekend call, and a repeat sign-out is required at the end of the night or weekend call prior to rounds on the following morning.
- During night and weekend duty, residents are expected to be the first point of contact for the patient, hospital wards, and the emergency room. They are closely supervised by the senior resident, Chief Resident and on call faculty urologist depending on the complexity of patient care events.
- Residents evaluate patients by performing a detailed history and physical examination and order appropriate investigational studies and labs as well as other medications as needed under the guidance of the Chief Resident on call.

4. Long term care

- The PGY3 resident continues to accept primary discharge responsibility for patients predicated on the availability and clinical responsibilities of the PGY2 residents. This requires confirming the disposition of patients upon discharge and coordinating long term patient care as required by the patient condition. Working with the social worker service, assisted living facilities and rehabilitation facilities may be required;
- Residents are also responsible for answering patient phone calls as the point of first contact for the patients and the answering service. These questions are then discussed with the responsible covering faculty member to formulate a plan of action that is then communicated back to the patient.
- Continued attendance of outpatient clinics at the VA Hospital and UMMC throughout the residency program allows long-term follow-up for the more chronically affected patients and provides an understanding of disease processes.
PGY-4 Year

1. Total patient care: The resident will spend 4 months as Chief Resident on the Pediatric Urology service, 4 months as the Research and Special Procedure Resident at the Minneapolis VA Health Care System (MVAHCS), and 4 months as Chief Resident on the Urology Service at Hennepin County Medical Center (HCMC).

   **Pediatrics**

   The goals of the PGY4 resident on the Pediatric service is to learn the evaluation and management of pediatric urology patients, learn the scope of pediatric urology conditions and operative procedures, to reinforce their understanding of principles of urology by repeating the curriculum they have studied in their first years, further their understanding of urologic research, and learn to teach basic urology to the junior residents. The resident is to participate fully with the pediatric urology attending staff in the evaluation and management of the pediatric urology patients.

   **HCMC**

   The goals of the PGY-4 (Uro-3) resident at HCMC are to continue their training in the evaluation and management of general urology issues, adult and pediatric, reinforce their understanding of principles of urology by repeating the curriculum they have studied in their first years, further their understanding of urologic research, and learn to teach basic urology to the junior residents.

   **VA Research/Special Procedures**

   The PGY-4 resident will:
   - serve as an acting chief resident during the pediatrics and HCMC rotations and begins to accept the responsibilities of formulating admission plans, diagnostic workup and first-assisting on all surgical cases;
   - develop proficiency with careful tissue handling and catheter placement and cystoscopy in children;
   - extend their skills in laparoscopic procedures and gain an introduction to robotic-assisted surgery;
   - understand the unique analgesic, fluid and hemodynamic management of pediatric patients at a children’s hospital setting;

2. Continuity of care

   - The resident will attend weekly outpatient clinic on the pediatric urology service and at HCMC. This will ensure comprehensive followup from the pre-operative planning, case discussion, diagnostic imaging review, participating in the surgical case, inpatient care and post-operative followup. All urology patients admitted on the pediatric urology and HCMC service will be closely followed by the PGY4 resident. The VA Special Procedures resident assumes senior resident level responsibility on the urology wards and is responsible on remaining fully engaged with the entire VA staff on active inpatients and relative outpatient contacts as required.
   - Overnight cross coverage is provided at the VA and on the pediatric urology service, but continuity requires a rigorous sign-out that is written through the electronic medical record and verbal. Residents do not typically cover patients at the Children’s Hospital of Minnesota campuses after-hours as they are directly cared for by the attending faculty. At HCMC, the resident participates in a call rotation with the attending staff directly, ensuring complete continuity of care throughout the four-month rotation.

3. Night/weekend duty (all call is home call)

   - PGY-4 residents are expected to sign-out the patients under their care to the covering resident overnight and during weekend hours. As above, sign-out is verbal and written as per complete documentation in the electronic medical record with a patient list printed out as well. The HCMC resident hands off call to the covering faculty member directly. The VA PGY4 resident is not included in the call schedule during the relevant 4 months.
   - Residents are expected to manage inpatient and outpatient consultations as well as admitted inpatients on the service. Residents are also expected to be able to evaluate emergencies such as priapism and testicular torsion. They are expected to be able to perform penile aspiration procedures, complex catheter placements using bedside cystoscopy and participate as a first-assistant in urological trauma cases at HCMC.
   - Residents are expected to be able to perform outpatient cystoscopy, foley catheter placement, bladder access procedures such as suprapubic catheter placement.
4. Long term care

- The PGY-4 resident at HCMC and pediatric urology will arrange and coordinate outpatient hospital care for patients upon discharge as needed. This will require consideration of the unique needs of these patient populations and utilization of patient placement, social work and accepting institution coordination. The resident’s close familiarity with these patients throughout the four month rotation ensures smooth transitions of care.
- Residents are also responsible for answering patient phone calls as the point of first contact for the patients and the answering service. These questions are then discussed with the responsible covering faculty member to formulate a plan of action that is then communicated back to the patient.
- All patients discharged within the four month time frame at each rotation will also be followed at outpatient clinics that are required attendance for the PGY4 resident. This ensures the longest possible continuity of care. These same patients may also be cared for by the same resident earlier during on-call nights/weekends and as a supervising Chief Resident in the PGY5 year—also providing opportunities for continuity of care.

PGY-5 YEAR (CHIEF RESIDENT)

1. Total inpatient care: The resident will spend 4 months as Chief Resident at University of Minnesota Medical Center (UMMC), 4 months as Chief Resident at the Minneapolis VA Health Care System (MVAHCS), and 4 months on a combined rotation as Chief Resident at University of Minnesota Medical Center (UMMC) and Fairview Southdale Hospital (FVSH).

The goal of the PGY5 (Uro-4) or Chief Resident is to be proficient in the diagnosis, management and follow-up of patients who present with urologic problems and to do so independently. This includes being proficient in all urologic surgery that is typically performed by a board certified urologist. Another goal is to have to have completed the core curriculum for a second time which should allow them to pass their boards and to use the knowledge to provide excellent care to their patients. Finally, the Chief Resident is to understand the principles of research that further the field of urology and to use this research knowledge to continue their study and understanding of urology after they have graduated from the program.

The resident will continue to be the primary surgeon for all the surgical procedures listed in the PGY-2, PGY-3, and PGY-4 sections above. He/she will spend this year developing independence and excellence in all aspects of urologic surgery.

Clinical responsibilities of the Chief Resident include:

- Will oversee patient care and training of junior residents and students
- Will monitor the condition of all inpatients and keep the attending physicians informed
- Will coordinate urologic emergency care
- Will determine the daily schedules for all junior members of the urology team
- Will maintain a responsibility to conduct daily teaching rounds on the inpatient service

2. Continuity of care

- All Chief residents are expected to be fully familiarized and knowledgeable about each patient admitted to the urology inpatient service.
- Chief resident develops a daily management plan for every patient on the urology service and is involved in the preoperative and postoperative planning stages.
- A four month rotation ensures an adequate interval for close coordination.

3. Night/weekend duty (all call is from home)

- Chief Residents serve as secondary (back-up) call and are intimately familiar with the service ensuring a high level of continuity. They are responsible for all aspects of inpatient management, and communicate with the appropriate faculty urologist on a daily basis on multiple occasions to discuss and confirm patient care plans. Verbal and electronic medical record sign-outs are passed on and confirmed.
Chief residents are expected to manage inpatient and outpatient consultations as well as admitted inpatients on the service during call. Chief residents are expected to be able to supervise outpatient cystoscopy, foley catheter placement, bladder access procedures such as suprapubic catheter placement and outpatient treatment of priapism.

The chief resident will be present for any emergency surgical procedures that occur in the operating rooms at night or on weekends. They will first-assist the faculty on every case, and should assume responsibility as the interface with faculty during the forthcoming business day.

4. Long term care

The Chief Residents develop a discharge plan for every inpatient and supervise its implementation. They will ascertain that followup is arranged with the appropriate faculty attending.

Chief Residents will continue to staff outpatient clinics on a regular basis and will often follow the same patients at the VA or UMMC that they have followed since the PGY2 year confirming the possibility of long-term continuity of care.

**RESIDENTS’ ADVISOR PROGRAM**

Each faculty member is assigned one resident or more and will act as a counselor for all resident’s concerns. The advisor is an advocate for the resident and whose goal is to help the resident with academic and personal concerns. Each faculty may be able to counsel one resident but no more than two at a time.

**Responsibilities of the advisor:**

- Ensure that the resident performance is according to the guidelines.
- Ensure that the resident has access to a balanced and comprehensive surgical experience and that the progress is regularly evaluated.
- Monitor the resident’s stress, including mental or emotional conditions inhibiting performance or learning and drug-or alcohol-related dysfunction. Program directors and teaching faculty should be sensitive to the need for timely provision of confidential counseling and psychological support services to residents. Training situations that consistently produce undesirable stress on residents must be evaluated and modified.
- Ensure that the resident engages in scholarly pursuit such as:
  - Active involvement in continuing medical education in urology.
  - Active participation in regional or national scientific societies.
  - Presentations and publications.
  - Active interest in research.
- Supervision, direction, and administration of the educational activities of the resident.

**GRADED RESPONSIBILITY**

The program must provide the residents with experience in direct and progressively responsible patient management as they advance through the program. The educational program must culminate in sufficiently independent responsibility for clinical decision making to ensure that the graduating resident has developed sound clinical judgment and possesses the ability to carry out appropriate management plans.

The level of resident responsibility should be increased progressively with each year of education. This includes responsibility in such areas as patient care, leadership, teaching, organization, and administration. Appropriately qualified senior residents may supervise or act as consultants to junior residents.

The resident should have responsibility under supervision for the total care of the patient, including initial evaluation, establishment of diagnosis, selection of appropriate therapy, implementation of therapy, and management of complications. The resident must participate in the continuity of patient care through preoperative and postoperative clinics and inpatient contact. When residents participate in preoperative and postoperative care in a clinic or private office setting, the program director must ensure that the resident functions with an appropriate degree of responsibility under adequate supervision.
MONITORING OF RESIDENT WELL-BEING

The program director is responsible for monitoring resident stress, including mental or emotional conditions inhibiting performance or learning, and drug-related or alcohol-related dysfunction. Both the program director and faculty should be sensitive to the need for timely provision of confidential counseling and psychological support services to the residents. Situations that demand excessive service or that consistently produce undesirable stress on residents must be evaluated and modified. If a resident is fatigued or stressed, especially is unable to provide safe patient care, they should contact Dr. J. Kyle Anderson immediately.

RESIDENT RESPONSIBILITIES

- **GUIDELINES FOR PROFESSIONAL DRESS**
  Please arrive to the clinic dressed in slacks, shirt, tie, dress/nylons, or surgical. Have your white lab coats on with your name tags attached. Blue jeans are not permitted while attending to patient needs. Residents are expected to be neat, clean, and orderly at all times during the performance of training program activities. Jewelry, clothes, hairstyle and fragrances should be appropriate for the performance of duties in the hospital and clinic. The resident identification badge is to be worn whenever the resident is involved in clinical or administrative duties. Residents are expected to dress according to generally accepted professional standards for their program. Residents often have to see patients on weekends and after normal clinic hours. Common sense should dictate what the residents wear. Shorts and tee shirts are not acceptable. Shirts should have a collar. A tie is not mandatory. A white coat is encouraged. (Please refer to the Medical School Institution Manual).

- **PATIENT CARE**
  Residents are expected to diagnose, formulate management plans, and perform, within their ability, all necessary therapeutics procedures. Management of complications is an expected aspect of their performance, which is reviewed in the monthly Morbidity-Mortality Conference. Continuity of care is maintained within the limits of a rotating assignment schedule. Residents are involved in all aspects of urologic patient care within the training program. Residents in all institutions are expected to be available for assigned on-call duties at a frequency consistent with the stipulations of the Special Requirements for Urology and the ACGME. All services have night and weekend resident coverage under faculty supervision.

It is the responsibility of the medical staff to absolutely maintain patient safety. Resident education and the resident’s progressively greater involvement in patient care can only occur once patient safety has been assured. The issue of adequate resident supervision is a topic of each staff meeting and also a consideration during the review of any morbidity or mortality. Residents are expected to be available for call assignment on a reasonable schedule, which is consistent with both the nature of the rotation and the Stipulations of the Special Requirements for Urology and the ACGME. All residents on-call have a supervisory faculty member available for consultation and the residents are instructed to seek faculty consultation for any significant medical problems. Should a surgical emergency occur during call hours, it is the policy of all participating institutions that a staff physician be present during any surgical procedure.

Patients are frequently cared for by a variety of services simultaneously. The Urology Residents are expected to promote cooperative, collegial interaction with all services and provide, without prompting, necessary urology care irrespective of the patient’s assigned service. Urology residents and staff are also expected to be a source of educational information for the residents, medical students, and other health professional caring for the patient, thus, enhancing both the patient’s quality of care and the education experience of all involved.

All urology patients in the participating institutions in all categories are cared for by the Urology Residents.
• **ANSWERING PAGES**
All residents need to answer their pages. Pages will optimally be answered immediately, but must be answered within five minutes. It is particularly important that the resident on-call promptly answer pages. If the resident on-call is in the operating room, he/she is still responsible for answering pages in a timely fashion, as outlined above, and must listen and be aware of pages. If the operative case is of the level or intensity where pages cannot be answered in a timely fashion, the pager should be transferred to another resident prior to the start of that case. The only deviation of this policy is if the resident is on the shuttle between UMMC Riverside and the University campus, in which case the page needs to be answered as soon as the resident arrives at the next stop. Pagers on “lo-cell” need to have batteries changed immediately. Residents on call should stay out of areas known not to transmit to the pagers. Deviation from this policy can result in disciplinary action.

• **RESIDENTS SURGICAL CASE LOG**
The residents’ surgical cases log is a very important element for the Residency Review Committee and the ACGME. They use this to evaluate the residents and the program performance. The surgical log database is located on the web at [www.acgme.org](http://www.acgme.org). You will need a login name and password. This will be given to you by the residency coordinator. You are required to enter your surgeries in the database on a weekly basis. You will be receiving a handbook with instructions, a list of CPT codes, and your log in/password. If you should have difficulties with this program, please contact the residency coordinator or you may e-mail the ACGME support desk at oplog@acgme.org. You may also use a billing sheet to help categorize your procedures or there is a search capability with this program.

• **HANDOFF COMMUNICATION**
A handoff happens when you transfer the responsibility of the patient to another care provider. In order to transfer responsibility you must provide information necessary to allow the new provider to safely and effectively care for the patient.

Key Elements of an effective handoff:
1. Critical information is shared about patient’s condition
2. Timely
3. Follows standard communication process using standard SBAR handoff tools (for all Nursing and Ancillary handoffs)
4. Opportunity to ask clarifying questions
TEACHING MEDICAL STUDENTS
Residents are an essential part of the teaching of medical students. It is critical that any resident who supervises or teaches medical students must be familiar with the educational objectives of the course or clerkship and be prepared for their roles in teaching and evaluation. Therefore, we’ve included in this manual the URL to the objectives for the Clerkship specific to the Urology Department http://www.meded.umn.edu/clerkships/UROL_7200.php as well as the overall Educational Program Objectives.

Urology UROL 7200

Goals and Objectives
To provide specialty training in urological conditions commonly encountered in the primary care setting. Emphasis will be placed on a comprehensive ambulatory clinical experience.

Educational Program Objectives
University of Minnesota Medical School

Graduates of the University of Minnesota Medical School should be able to:

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<tr>
<th>OBJECTIVE</th>
<th>OUTCOME MEASURES</th>
<th>ACGME ESSENTIAL COMPETENCY</th>
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<tbody>
<tr>
<td>1. Demonstrate mastery of key concepts and principles in the basic sciences and clinical disciplines that are the basis of current and future medical practice.</td>
<td>USMLE Steps 1 and 2 Year 1 and 2 course performance, based on standardized examinations Clinical rotation performance  • Feedback from residency directors</td>
<td>Medical Knowledge</td>
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<tr>
<td>2. Demonstrate mastery of key concepts and principles of other sciences and humanities that apply to current and future medical practice, including epidemiology, biostatistics, healthcare delivery and finance, ethics, human behavior, nutrition, preventive medicine, and the cultural contexts of medical care.</td>
<td>• USMLE Steps 1 and 2 • Course performance (esp. in Physician and Society, Nutrition, and Human Behavior at TC campus; Medical Sociology, Medical Epidemiology and biometrics, Family Medicine I, Medical Ethics, Human Behavioral Development and Problems, and Psycho-Social-Spiritual Aspects of Life-Threatening Illness at DU campus) • Clinical rotation performance • Feedback from residency directors</td>
<td>Medical Knowledge</td>
</tr>
<tr>
<td>3. Competently gather and present in oral and written form relevant patient information through the performance of a complete history and physical examination.</td>
<td>• Yr 2 OSCE • Physician and Patient (PAP) course performance at TC campus, assessed by tutors using global rating forms and observed practical exams • Course performance at DU campus in Applied Anatomy, Clinical Rounds &amp; Clerkship (CR &amp; C), Clinical Pathology Conference, and Integrated Clinical Medicine • Clinical rotation performance</td>
<td>Patient Care; Interpersonal and Communication Skills</td>
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<td>4. Competently establish a doctor-patient relationship.</td>
<td>• Yr 2 OSCE and Primary Care</td>
<td>Patient Care;</td>
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<tr>
<td>Competencies Required for Graduation</td>
<td>Clerkship (PCC) OSCE</td>
<td>Interpersonal Communication Skills</td>
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| 5. Competently diagnose and manage common medical problems in patients. | • PCC OSCE  
• Clinical rotation performance | Medical Knowledge; Patient Care |
| 6. Assist in the diagnosis and management of uncommon medical problems; and, through knowing the limits of her/his own knowledge, adequately determine the need for referral. | • Clinical rotation performance  
• Documented achievement of procedural skills in the Competencies Required for Graduation | Medical Knowledge; Patient Care; Practice-Based Learning and Improvement |
| 7. Begin to individualize care through integration of knowledge from the basic sciences, clinical disciplines, evidence-based medicine, and population-based medicine with specific information about the patient and patient’s life situation. | • Clinical rotation performance  
• Feedback from residency directors | Patient Care; Medical Knowledge; Interpersonal Communication Skills; Professionalism |
| 8. Demonstrate competence practicing in ambulatory and hospital settings, effectively working with other health professionals in a team approach toward integrative care. | • Yr 2 and PCC OSCE  
• PAP course performance at TC campus, assessed by tutors using global rating forms and observed practical exams  
• Physician and Society (PAS) course performance at TC campus  
• Preceptorship, CR & C, and Introduction to Rural Primary Care Medicine course performance at DU campus  
• Clinical rotation performance | Practice-Based Learning and Improvement; Systems-Based Practice |
• Medical Sociology and CR & C course performance at DU campus  
• Clinical rotation performance, especially the PCC  
• Feedback from residency directors  
• Feedback from local health plans | Practice-Based Learning and Improvement; Systems-Based Practice |
| 10. Competently evaluate and manage medical information. | • Critical reading exercises in PAS and other courses at TC campus  
• Clinical Pathology Conference performance and exercises in Problem Based Learning Cases at DU campus  
• Year 2 Health disparities project  
• PCC EBM project | Patient Care; Medical Knowledge; Practice-Based Learning and Improvement; Systems-Based Practice |
| 11. Uphold and demonstrate in action/practice basic precepts of the medical profession: | • PAS course performance at TC campus | Professionalism |
altruism, respect, compassion, honesty, integrity and confidentiality.

- Preceptorship and Cr & C course performance at DU campus
- Clinical rotation performance
- Participation in honor code and student peer assessment program
- Participation in anatomy memorial
- Participation in volunteer service activities

12. Exhibit the beginning of a pattern of continuous learning and self-care through self-directed learning and systematic reflection on their experiences.

- PBL cases at DU campus
- Yr 2 Health disparities project
- Clinical rotation performance
- Participation in research

13. Demonstrate a basic understanding of the healthcare needs of society and a commitment to contribute to society both in the medical field and in the broader contexts of society needs.

- Course performance in all years
- Introduction to Rural Primary Care Medicine course project at DU campus
- Involvement of students in international study
- Enrollment in RPAP, RCAM, and UCAM
- Yr 2 Health disparities project
- Feedback from residency directors
- Participation in volunteer service activities

These objectives are written to reflect the qualities and competencies expected of our graduates. Each objective specifies the expected competency level to be attained by our students, the outcome measures used to evaluate attainment of the objective, and the essential qualities and competencies of a physician (as defined by the six ACGME Essential Competencies) addressed by the objective. The Accreditation Council for Graduate Medical Education (ACGME) has formulated essential competencies felt to be necessary for physicians practicing in the current health care climate. They are:

- **Patient Care** that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health
- **Medical Knowledge** about established and evolving biomedical, clinical, and cognate (e.g. epidemiological and social-behavioral) sciences and the application of this knowledge to patient care
- **Practice-Based Learning and Improvement** that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, and improvements in patient care
- **Interpersonal and Communication Skills** that result in effective information exchange and teaming with patients, their families, and other health professionals
- **Professionalism**, as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population
- **Systems-Based Practice**, as manifested by actions that 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 optimal patient care

The objectives for the undergraduate curriculum can be grouped as follows:
Objectives 1-3: Knowledge and skills addressed principally in the first two (preclinical) curricular years;
Objectives 4-9: Knowledge and skills addressed principally in the second two (clinical) curricular years;
Objectives 10-13: Knowledge, attitudes, and skills addressed throughout the curriculum.

The objectives, which relate to the ACGME essential competencies, are designed to be modified for use also by the graduate (GME) programs at the University of Minnesota Medical School. Residency programs can modify the competency level stated in the objectives and the outcome measures to reflect their own programs, while maintaining the overall integration of basic learning objectives across undergraduate and graduate medical education.

One of the primary outcome measures for the objectives is clinical rotation performance. To expand on this; clinical rotation performance is assessed by attending physicians and residents using a Web-based global rating form, evaluating the following knowledge, competencies, skills, and attitudes:

- Medical knowledge and the ability to apply knowledge in clinical situations
- Competency in patient care including communication and relationships with patients/families
- Skills in data gathering from the history, physical examination, clinical and academic sources, and diagnostic tests
- Assessment and prioritization of problems
- Management of problems, including knowledge of patient data and progress
- Appropriate decision making
- Communication in written and oral reports
- Professionalism, including: patient care and management in teams (work habits), independent learning, personal characteristics, and commitment to medicine
- Specific procedural skills (see report outlining Competencies Required for Graduation)

Ratified by Education Council 2/18/03
# Section 6
## Administration

UROLOGY FACULTY/ADMINISTRATION PHONE/PAGER LIST

**University of Minnesota Medical Center (UMMC)**

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Chrissy Reding 612-625-8364
(Education coordinator)

**The Department of Urology fax number is 612-626-0428.**

**The Urology clinic fax number is 612-625-8356.**

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**Pediatric Urology**

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### Hennepin County Medical Center (HCMC)

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Phyllis Squires
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Residency Program Governance
2013-2014

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Badrinath Konety, MD

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Associate Director, Residency Program
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GMEC Resident Representatives
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Jeff Tomasini
Joe Zabell
Urologic Oncology Objectives for Clinic with
Drs. Badrinath Konety and Chris Warlick

Focus: Urologic Oncology

Level: PGY-3, PGY-5

Minimal Clinic Requirement to Meet Objectives: 15 full-day clinics per year every year. Oncology encompasses a large portion of urology. As such, residents need constant instruction, learning and fine tuning of their skills in this area.

Overall Goals: Since urologic oncology encompasses a large portion of urology, iterative learning throughout the years PGY-2 through PGY-5 is important. The residents will expect it to add to their clinical and translational knowledge database, as well as learn the finer aspects, or art of medicine, through urologic oncology clinics. Teaching will include renal, bladder, testes, penile, prostate cancer, and other rare tumors, such as sarcomas of the genitourinary tract, etc. The residents are to be promptly in clinic on a consistent basis, unless excused for a significant surgical operative experience. With the requirement of 20 clinics per year, it is anticipated that at least one resident from the University service should be in oncology clinic both on Tuesday and Wednesday. The focus on clinical competencies will be on patient care, medical knowledge, interpersonal and communication skills, professionalism, and education of the patient and family. There is obviously required reading.

Urologic oncology is a complex field and a minimum number of clinics, approximately 15 per year to achieve the objectives, are necessary. When the resident feels he has mastered oncologic understanding, he should let the staff know and it will be discussed. Oncologic care is often multidisciplinary and it involves thorough and detailed oncologic history and physical, issues of consent, appropriate ordering and reading of imaging and staging studies, pre-procedural or surgical work-up. In addition, pre-operative, operative, and post-operative care issues should be discussed, as well as acute healing. Lastly, chronic cancer surveillance based upon protocols should be known and exercised. Most importantly, referral to other physicians in a multidisciplinary manner for radiation, chemotherapy, immunotherapy, etc. should be understood.

Readings: All of the relevant chapters in Campbell’s, as listed below, should be reviewed and at least twice read in the four year period.

VOLUME 1
Part I. Anatomy
1. Surgical Anatomy of the Retroperitoneum, Kidneys, and Ureters
2. Anatomy of the Lower Urinary Tract and Male Genitalia

Part II. Urologic Examination and Diagnostic Techniques
3. Evaluation of the Urologic Patient: History, Physical Examination and Urinalysis
4. Basic Instrumentation and Cystoscopy
5. Urinary Tract Imaging - Basic Principles
Part X. Oncology
74. Molecular Genetics and Cancer Biology
75. Renal Tumors
76. Urothelial Tumors: Etiology, Natural History, Pathology, Detection and Staging
77. Management of Superficial Bladder Cancer
78. Management of Invasive and Metastatic Bladder Cancer
79. Surgery of Bladder Cancer
80. Management of Urothelial Tumors of the Renal Pelvis and Ureter
81. Neoplasms of the Testis
82. Surgery of Testicular Tumors
83. Tumors of the Penis
84. Surgery of Penile and Urethral Carcinoma

Part XI. Carcinoma of the Prostate
85. Epidemiology, Etiology, and Prevention of Prostate Cancer
86. Pathology of Prostatic Neoplasia
87. Ultrasonography and Biopsy of the Prostate
88. Diagnosis and Staging of Prostate Cancer
89. Radical Prostatectomy
90. Anatomic Radial Retropubic Prostatectomy
91. Radical Perineal Prostatectomy
92. Radiation Therapy for Prostate Cancer
93. Cryotherapy for Prostate Cancer
94. Hormonal Therapy of Prostate Cancer
95. Chemotherapy for Hormone-Resistant Prostate Cancer

Other references include:

Objectives:
A. Interpersonal and Communication Skills and Professionalism

Residents are expected to learn communication skills with the patients and their families, and other physicians. They will be asked to provide and discuss informed consent issues with the patient and their families. For surgical cases, this would include potential complications, side effects, anticipated post-operative care issues. For non-surgical patients, this will include description of the expected treatment, complications, follow-up plans. These communication skills should gradually develop over a four year time frame.

B. Patient Care and Medical Knowledge Objectives

• List the risk factors and determine risk-dependent staging work-up for
  – Prostate Cancer
  – Bladder Cancer
  – Renal Cancer
• Discuss with patients the natural history of individual cancers and obtain informed consent that discusses the relative risks, options and benefits for the following therapeutic options including

Prostate cancer
- Radical prostatectomy
- Brachtherapy
- External beam radiotherapy
- Cryotherapy
- Androgen ablation
- Active surveillance

Bladder cancer
- Ta – treatment with transurethral resection and cauterization
- CIS – options for intravesical therapy
- T1 grade 3 – conservative versus aggressive options
- T2 – cystectomy versus conservative management (chemoradiation
- T2- the need for neoadjuvant or adjuvant chemotherapy

Renal cancer
- Laparoscopic versus open procedures for radical nephrectomy
- Options for nephron sparing surgery
- Rationale for resection of metastatic disease

Penile Cancer
- Options for local therapy (laser versus topical treatment versus partial penectomy)
- Need for lymph node dissections

Testicular Cancer
- Options for high risk Stage 1 and stage 2 disease (surgery versus chemotherapy vs observation)

• Prescribe optimal risk-based surveillance strategies for specific cancers
- Prostate cancer
- Bladder cancer
- Renal cancer
- Penile cancer
- Testicular cancer

A. Practice Based Medicine Objectives
The resident will be required to document their individual performance during the PGY-5 year with regards to margin-free rates and complications for all cancer procedures (radical prostectomy, cystectomy, nephrectomy, penectomy and RPLND). The residents will also track the percentage of each case they perform as a measure of individual progress.

B. Systems-Based Medicine Objectives
The resident will be part of a multi-disciplinary team. They will participate in conversations between the patient and radiation oncologist and medical oncologist when time allows to learn effective coordinated care aimed at multidisciplinary care of cancer. The resident will be required to identify one aspect of care provided in cancer clinic that can be improved upon and develop a short implementation plan (1-page).
**Conclusion:**

Urologic oncology encompasses broad-based section of urology. Residents should deeply immerse themselves in the reading through Campbell’s chapter reading, throughout their four year training in urology. They should listen to and observe their clinical mentors in clinic and in the O.R. to pull out the best, wisest, and best practice patterns for patients and their families. Evidence based medicine should be developed. Residents are given leeway to use judgment as to when they should and should not attend clinics, but it should be on-going throughout their training. The resident, especially the chief resident, will be allowed their own discretion to decide what clinic is more or less important than surgery in the O.R. Certainly, operative time for urologic oncology is probably paramount.
Kidney Stone Clinic

Focus: Endourology & Stone Disease

Level: PGY3 (Second Year Urology)

Minimal Clinic Requirement to Meet Objectives: 10 full-day clinics

Description: This is a second-year urology clinical experience in the area of endourology and kidney stone disease. Residents will have the option of attending Monday clinic (8a-4p) or Thursday Clinic (1-4p). The residents are to promptly be in clinic on a consistent basis unless excused for a significant surgical operative experience. Non-emergent consultations will be seen during the lunch-break or at the end of clinic. Emergent consultations will be discussed prior to leaving clinic.

The focus on clinical competencies will be patient care, medical knowledge, interpersonal and communication skills, practice-based medicine, systems-based medicine and professionalism. There is required reading (see below) and personal individual summaries should be made.

The metabolic evaluation and management of kidney stone disease is a complex field, and there is a minimum number of clinics (10) to achieve the objectives which are outlined below. However, it would not be unusual for a resident to have to spend up to 6 months of attending this clinic on a 1 day/week basis to learn the objectives. Anytime after 10 clinics that the resident feels he/she has met the objectives and wants to undergo the oral examination, it can be scheduled.

Required follow-up (PGY5): Learning is iterative process. In addition, the field of endourology and stone management is evolving dramatically, and it is to anticipate that new knowledge will be acquired two years after the initial rotation. After successful completion of the endourology/stone clinic rotation it is expected that the resident will return for four full clinics in their PGY5 years.

Readings:

1. Campbell’s Urology - Chapter 96-99
2. Urolithiasis: A Medical and Surgical Reference Resnick & Pak, 1990)
3. Reading materials will be provided to the resident to supplement their knowledge base as needs are identified during their rotation.

Goals and Objectives:

A. Interpersonal and Communication Skills and Professionalism

You will be evaluated on interpersonal and communication skills and professionalism throughout your endourology clinic rotation. Your interpersonal communication skills and professionalism will not only be assessed in relation to patients, but how you conduct yourself with staff and students within the clinic setting. After an initial period of observation of the attending physician, you will be observed in the role of counseling physician. We will specifically evaluate your ability to:

• Provide informed consent to the patients regarding treatment.
- For surgical cases, discuss the procedure, potential complications and side effects, and anticipated post-operative care.
- For non-surgical patients, describe the expected treatment, potential complications, and follow-up plans.

You will be provided with formative feedback to improve these skills.

B. Patient Care and Medical Knowledge Objectives

You will be evaluated on your ability to:

- **Obtain an informed consent that discusses the relative risks, options and benefits for observation, ESWL, URS, PCNL, and laparoscopic/open surgery for the following clinical situations:**
  - Lower pole calculus <1 cm and >1cm
  - Ureteral calculus <5mm and >5mm
  - Renal calculus >1.5cm and <1.5cm
  - Calyceal diverticular calculi
  - Ureteropelvic junction obstruction with and without calculi
- **Identify risk factors and metabolic abnormalities that increase risk for and discuss the pertinent pathophysiology the development of:**
  - Uric acid stones
  - Cystine stones
  - Calcium oxalate stones (hypercalcuria, hyperoxaluria, hypocitraturia)
  - Calcium phosphate stones (hyperparathyroidism, renal tubular acidosis etc)
- **Discuss pharmacological and dietary interventions for:**
  - Empiric therapy for stone disease
  - Uric acid stones
  - Cystine stones
  - Calcium oxalate stones (hypercalcuria, hyperoxaluria, hypocitraturia)

C. Practice Based Medicine Objectives

- Document your individual performance during the PGY-3 year with regards to **stone-free rates** and **complications** for all ESWL, URS and PCNL procedures. The standard we set is that through training, experience and patient selection you will be able to achieve a 85% stone-free rate with less than 5% complications.
- Track the percentage of each case you perform as a measure of individual progress.

D. Systems-Based Medicine Objectives

You will be part of a multi-disciplinary team. You will participate in conversations between the patient and the clinic dietician to learn effective coordinated care aimed at stone prevention. You will be evaluated on your ability to:

- Identify one aspect of care provided in stone clinic that can be improved upon and develop a short implementation plan (1-page).
Objectives for the Laparoscopic Surgery Clinic with J. Kyle Anderson, MD

Focus: Basics of Laparoscopic Surgery

Level: PGY 3 and PGY 5

Minimal Clinic Requirement to Meet Objectives: 5 full-day clinics for PGY 3 and 5 half day clinics for PGY 5

Overall Goals: This is an advanced urology clinical experience in the area of oncology and reconstructive Urology. The Clinic begins at 9:00 a.m. on Friday day, and is completed at approximately 4:30 p.m. The focus on clinical competencies will be patient care, medical knowledge, interpersonal and communication skills, and professionalism.

Anytime after 5 clinics that the resident feels she/he has met the objectives, the resident will be asked to evaluate patients in my next clinic and provide me with a game plan for their management. This will also include knowledge based view points.

Required follow-up (PGY5): After successful completion of the Laparoscopic Surgery clinic in PGY 3, it is expected that the resident will return for 5 half clinics as PGY5

Readings: Section in Campbell’s on laparoscopic Surgery.

Specific Objectives:

A. Interpersonal and Communication Skills and Professionalism

I cannot overemphasize the importance of interpersonal skills, not only with the patients but also with the clinic staff and nurses. Treat everyone how you expect to get treated.

You will be asked to provide informed consent to the patients regarding treatment for surgical cases like kidney cancer, prostate cancer, UPJ obstruction, adrenal tumors and other pathologies. This includes discussion of the procedure, potential complications and side effects, and anticipated post-operative care. For non-surgical patients, this will include description of the expected treatment, potential complications, and follow-up plans. Your interpersonal communication skills and professionalism will not only be assessed in relation to patients, but how you conduct yourself with staff and students within the clinic setting.

B. Patient Care and Medical Knowledge Objectives

1. Kidney tumor
   a) List the major categories and provide examples of questions to use in obtaining a detailed history including past medical history and current status of patient.
   b) Perform a complete and thorough physical exam of a patient with hematuria or flank pain.
   c) From a CT, be able to accurately describe a kidney tumor including the tumor side, size, type, CT characteristics, and possibility of nephron sparing.
d) Accurately assess patient’s ability to undergo major laparoscopic surgery and differentiate between patients who are candidates for nephron sparing surgery versus those who are not.
e) For a perioperative patient, assess and describe the perioperative risks including but not limited to DVT, hemorrhage, MI, prolonged ventilatory support, and infection.
f) Discuss the appropriate treatment options for a patient with a kidney tumor including all the attending risks and potential complications and outcomes of each procedure. This includes laparoscopic: radical nephrectomy, partial nephrectomy, cryoablation as well as open radical nephrectomy.
g) Evaluate and understand peer reviewed literature from journals like Journal of Urology and Urology as well as Pubmed and Ovid on renal cancers, discuss the outcomes, long term follow up, and recurrence data of surgery for kidney cancer, data on metastatic kidney cancer and its treatment.

2. **Prostate Cancer**
   a) Conduct a history and exam on a patient with a high PSA or a prostatic nodule.
b) Perform a prostate exam looking for nodules and be able to assess the prostate size within 15 grams.
c) In a patient with proven cancer, be able to correctly clinically stage the cancer per AUA guidelines.
d) Compare and contrast prostate cancer treatment options including watchful waiting, open and laparoscopic surgery, radiation and cryoablation.
e) Determine which treatment option best suits a patient and defend your selection.
f) Counsel a patient regarding his/her treatment options discussing technique, risks, benefits, options of each treatment.
g) Using the literature from standard journals like Journal of Urology or Urology to understand and discuss the early and late outcomes of each of the treatment options for prostate cancer.
h) Describe the indications and rationale for determining when to start and stop hormonal therapy for prostate cancer.

3) **UPJ obstructions**
   a) Conduct a history and physical exam on a patient with UPJ obstructions. Based on CT scan, symptoms, nuclear scans and IVPs, diagnose UPJ obstruction.
b) Discuss the various treatment options for UPJ obstruction including the risks, complications and outcomes associated with each treatment. This includes antegrade and retrograde techniques as well as laparoscopic pyeloplasty.
c) Provide follow up for patients with UPJ obstructions effectively using nuclear scans and/or IVPs.

4) Effectively employ written, electronic, and oral communication skills to demonstrate the ability to communicate patient information and orders to other physicians. Provide accurate and timely follow up to physicians who have recommended patients to you.
Objectives for Urology Clinic

Focus: General Urology, Reconstructive and Neuro-urology

Level: PGY2 (First Year Urology)

Minimal Clinic Requirement to Meet Objectives: 10 full-day clinics

Overall Goals: This is a first-year urology clinical experience in the areas of General Urology (BPH, prostate cancer) and Reconstructive and Neuro-urology. Clinic begins at 8:00 a.m. on Wednesday, and is completed at approximately 4:30 p.m. The residents are to promptly be in clinic on a consistent basis unless excused for a significant surgical operative experience. If this is occurring, the surgeon involved should call me (ahead of time) to arrange for your absence. The focus on clinical competencies will be patient care, medical knowledge, interpersonal and communication skills, and professionalism. There is required reading (see below) and personal individual summaries should be made.

Urology is a complex field, and there is a minimum number of clinics (10) to achieve the objectives which are outlined below. However, it would not be unusual for a resident to have to spend up to 6 months of attending this clinic on a 1 day/week basis to learn the objectives.

Readings: Campbell’s Urology

Specific Objectives:

A. Interpersonal and Communication Skills and Professionalism

You will be evaluated on interpersonal and communication skills and professionalism throughout your urology clinic rotation. You will be asked to provide informed consent to the patients regarding treatment. For surgical cases, this includes discussion of the procedure, potential complications and side effects, and anticipated post-operative care. For non-surgical patients, this will include description of the expected treatment, potential complications, and follow-up plans. Your interpersonal communication skills and professionalism will not only be assessed in relation to patients, but also in how you conduct yourself with faculty, referring physicians, clinical staff, and students within the clinic setting.

B. Patient Care and Medical Knowledge Objectives

1. General Urology
   a) Know the major categories and examples of questions for obtaining good urological history
   b) Be able to describe and demonstrate conducting a good urological exam of a urology patient.
   c) Understand the natural history, clinical evaluation, and treatment of major urological diseases, including watchful waiting, medical therapy, radiation therapy, minimally invasive surgical options, and surgical therapies.
   d) Know how and when to perform flexible cystoscopy.

2. Prostate Cancer
a) Know the basic components of obtaining a Prostate Cancer history and physical examination.
b) Know when to screen with PSA and DRE.
c) Know how and when to perform a TRUS-NBOP and interpret results.
d) Know the pre-operative discussion of indications, risks, benefits and complications of alternative therapies including watchful waiting, medical therapy, radiation therapy, minimally invasive surgical options, and surgical therapies.
e) Know the immediate management of postoperative patients including the management of possible complications.
f) Know the long term management and follow-up of prostate cancer patients, including treatment failure patients.

3. *Benign Prostatic Hypertrophy*
   a) Know the basic components of obtaining BPH history and physical examination.
   b) Know when to screen with PSA and DRE.
   c) Know the application of the AUA guidelines for BPH.
   d) Know the pre-operative discussion of indications, risks, benefits and complications of alternative therapies including watchful waiting, medical therapy, minimally invasive surgical options, and surgical therapies.
   e) Know the immediate management of postoperative patients including the management of possible complications.
   f) Know the long term management and follow-up of BPH patients, including treatment failure patients.

4. *Reconstructive and Neuro-Urology*
   a) Know the basic components of obtaining Reconstructive and Neuro-Urology history and physical examination.
   b) Know the pre-operative radiographic evaluation of patients.
   c) Know when and how to perform Urodynamics.
   d) Know the pre-operative discussion of indications, risks, benefits and complications of alternative therapies including watchful waiting, medical therapy, minimally invasive surgical options, and surgical therapies.
   e) Know the immediate management of postoperative patients including the management of possible complications.
   f) Know the long term management and follow-up of Reconstructive and Neuro-Urology patients.

5. *Vasectomy Reversal*
   a) Be able to cite the general success rates of a vasectomy reversal, discuss alternatives, and discuss the pros/cons of obtaining a testis biopsy for subsequent IVF and ICSI if the vasectomy reversal fails

6. *Testis Pain*
   a) Read about testis pain and be able to differentiate by history/physical exam acute from chronic pain and discuss the differential diagnoses of each; in particular discuss criteria for differentiating testicular torsion from epididymitis
   b) Describe an algorithm for treating chronic testicular pain
   c) Demonstrate competency in giving a testicular cord block
7. **Peyronie’s Disease**
   a) Obtain history for somebody who presents with Peyronie’s disease
   b) Be able to describe size and location of plaque with 80% accuracy (Dr. Pryor is the standard)
   c) Discuss the particular questions that are necessary for you decide how to develop a treatment plan for a patient
   d) Know the risks and benefits for the various treatments for Peyronie’s disease
   e) Be able to give a successful penile block in clinic
Dr. Sweet’s Clinic

Focus: General Urology, specifically BPH, Prostate Cancer, Stone Disease and Chronic Pelvic Pain syndrome in men.

Minimal Clinic Requirements to meet objectives: 6 full days

Overall Goals:
1. Subjective demonstration of an understanding of these disease processes.
2. Demonstration of judgment: data interpretation, treatment decisions.
3. Demonstration of technical skills to competency.
4. Work effectively in our health care team
5. Exhibit Professionalism and interpersonal/communication skills.

Resident objectives:

By the end of this rotation all residents should be able to:

Competency: Professionalism and interpersonal/communication skills
1. Treat patients with respect and develop good rapport.
2. Communicate effectively and clearly with staff, fellow residents, nurses and medical students.
3. Treat nursing staff and faculty with respect and develop good rapport.
4. Prompt to clinic, positive attitude

Competency: BPH knowledge base and practice-based learning and improvement
1. Compare and contrast the distinctions between BPH, BOO, BPO, BPE, LUTS
2. Discuss the pathophysiology and likely progression of BPH.
3. Describe the mechanism of action, list the common side effects and discuss the differences between alpha-blocker options
4. Describe the mechanism of action, side-effects and discuss the differences between 5-alpha reductase options.
5. List the indications, describe mechanism of action and discuss the differences between anti-cholinergic medications.
6. List the contraindications and drug-drug interactions with these common medications.
7. Distinguish voiding from storage urinary symptoms
8. Obtain a complete BPH history including pertinent neurological/infectious disease/renal/sexual functioning history.
9. Conduct a focused physical Exam for the BPH patient.
10. Interpret voiding diary, AUA SS, Uroflow, post-void residual and urodynamic data.
11. Describe the indications for laboratory studies for BPH patients
12. Accurately and completely present the options for treating symptomatic boo.
13. Determine the procedure that best fits the patient’s problem and needs.
14. Read and accurately interpret an urinalysis
15. Accurately provide and effectively communicate to patients the benefits and risks of intermittent catheterization, laser ablation, laser vaporization and TURP.
16. List the differential diagnosis for nocturia.
17. Discuss the effects that BPH has on health related QOL in older men.
18. List complications of untreated/unresolved BPO.
19. List the absolute indications for bladder outlet reductive procedures.
20. Discuss indications for watchful waiting

**Stones:**
Focus will be on:
1. List or Discuss Differential diagnosis of renal colic
2. Apply the principles of radiological imagining to the reading of a patient
3. Discuss how these interpretations influence the diagnosis
4. Describe and practice the Medical laboratory work-up protocols in the management of stone disease.
5. Discuss the Dietary considerations for stone disease.
6. Describe the steps in the Surgical management decisions for stone disease.
7. Discuss the types of follow-up decisions

**Prostate Cancer:**
Focus will be on:
1. Diagnosis
2. Pathophysiology (Discuss/describe/apply knowledge
3. Staging
4. Performance and interpretation of TRUS PNBX.
5. Conduct respectful treatment counseling sessions incorporating treatment options that are consistent with the patient’s problem and situation as well as with current practice guidelines. Appropriate, accurate and respectful counseling as to treatment options.
6. Compare and contrast the options for local disease versus advanced disease as well as the risks and benefits of these various options.

Be able to use and apply prostate cancer monograms in a clinical setting.

**Chronic pelvic pain syndrome in men:**
1. Discuss the Definition of chronic pelvic pain syndrome in men
2. List the differential diagnosis for patients with cpps
3. Conduct a history and physical consistent for cpps
4. Develop and present a work-up for cpps
5. Describe the various Treatment options for cpps

**Competency: Show evidence of an understanding of systems-based practice**
1. Discuss the context in which decisions are made regarding patient care and how these decisions impact health care at an individual, clinic, hospital, national and international level.

For all patients, show an understanding and keep into context how our decisions impact health care at an individual, clinic, hospital, national and international level.
Andrology Clinic Objectives

Focus: Andrology

Level: PGY2 (First Year Urology)

Minimal Clinic Requirement to Meet Objectives: 10 full-day clinics

Overall Objective: This is a first-year urology clinical experience in the area of andrology (male infertility, sexual dysfunction, Peyronie’s disease, vasectomy, and vasectomy reversal). Clinic begins at 8:00 a.m. on Wednesday or Tuesday, and is completed at approximately 4:30 p.m. Vasectomies are additionally performed on 1st and 3rd Thursdays depending on patient demand (attendance is optional for these, but may be needed to fulfill the log requirements) The residents are to promptly be in clinic on a consistent basis unless excused for a significant surgical operative experience. The focus on clinical competencies will be patient care, medical knowledge, interpersonal and communication skills, and professionalism. There is required reading (see below) and personal individual summaries should be made.

Andrology is a complex field, and there is a minimum number of clinics (10) to achieve the objectives which are outlined below. However, it would not be unusual for a resident to have to spend up to 6 months of attending this clinic on a 1 day/week basis to learn the objectives. Anytime after 10 clinics that the resident feels he/she has met the objectives and wants to undergo the oral examination, it can be scheduled.

Required follow-up (in PGY3 to PGY5): Learning is an iterative process. After successful completion of the andrology clinic it is expected that the resident will return for one full clinic a year on the PGY3 and PGY5 years, i.e. two clinics.

Readings: Chapters 18-27 in Campbell’s (Chapters 42 – 47 in the old edition + Peyronie’s disease)

Objectives:

A. Interpersonal and Communication Skills and Professionalism

You will be evaluated on interpersonal and communication skills and professionalism throughout your andrology clinic rotation. You will be asked to provide informed consent to the patients regarding treatment. For surgical cases, this includes discussion of the procedure, potential complications and side effects, and anticipated post-operative care. For non-surgical patients, this will include description of the expected treatment, potential complications, and follow-up plans. Your interpersonal communication skills and professionalism will not only be assessed in relation to patients, but how you conduct yourself with staff and students within the clinic setting.

B. Patient Care and Medical Knowledge Objectives

1. Infertility
   a) List the major categories and examples of questions for obtaining a good infertility history
   b) Be able to describe and demonstrate conducting a good physical exam of a male infertility patient; be able to diagnose a varicocele, testicular consistency, and testicular size with 80% accuracy (Dr. Pryor would be considered the standard)
c) Be able to interpret normal values for semen analysis by WHO criteria (volume, sperm concentration, motility, and percent normal morphology)

d) Describe when to order another semen analysis

e) Be able to describe indications for obtaining hormone levels

f) List the 4 reasons for ordering anti-sperm antibodies

g) Describe when to order genetic tests and what tests to order, and how to counsel a patient if they come back abnormal

h) Demonstrate that you can describe the pathophysiology and treatment options for varicocele and indications for treating a varicocele patient

i) Describe the hypothalamo-pituitary-testicular access and how to diagnose hypogonadotropic hypogonadism and hypergonadotropic hypogonadism and what the evaluation and treatment is for these two entities

j) Describe how and when to do electroejaculation versus vibratory stimulation

k) Describe best indications for empirical therapy with anti-estrogens and how to follow these patients

l) Describe when to recommend intra-uterine insemination (IUI) versus invitro-fertilization (IVF)

m) Describe the basic histology patterns on testis biopsies and how to counsel the patients who return for a testis biopsy result

n) Describe retrograde ejaculation: risk factors, diagnosis and treatments.

2. **Erectile Dysfunction**

a) Describe the basic components of obtaining an erectile dysfunction history, including the IIEF

b) Describe when to order and how to interpret a duplex ultrasound of the penis

c) Describe when to treat a patient with a PDE5-inhibitor and the instructions to give the patient prior to use. Describe differences between the 3 available PDE5i.

d) Describe when to treat with MUSE

e) Describe the difference between Caverject and Trimix and know when to treat with one or the other and what the side effects are; be able to demonstrate you can teach injection therapy.

f) Describe the Vacuum Erection Device, its use, limitations and contra-indications.

g) Be able to demonstrate you can treat priapism and know the various steps according to AUA guidelines

h) Describe when to suggest a penile prosthesis and be able to describe the different types of prostheses; be able to cite potential complications and side effects as part of informed consent prior to scheduling prosthesis surgery

3. **Vasectomy**

a) Discuss the history and physical in a patient present for a vasectomy consultation and the potential complications and side effects

b) Do at least 10 vasectomies in clinic (includes vasectomies done at VA, or with other attendings)

4. **Vasectomy Reversal**

a) Be able to cite the general success rates of a vasectomy reversal, discuss alternatives, and discuss the pros/cons of obtaining a testis biopsy for subsequent IVF and ICSI if the vasectomy reversal fails

5. **Testis Pain**
a) Read about testis pain and be able to differentiate by history/physical exam acute from chronic pain and discuss the differential diagnoses of each; in particular discuss criteria for differentiating testicular torsion from epididymitis
b) Describe an algorithm for treating chronic testicular pain
c) Demonstrate competency in giving a testicular cord block

6. **Peyronie’s Disease**

a) Obtain history for somebody who presents with Peyronie’s disease
b) Be able to describe size and location of plaque with 80% accuracy (Dr. Pryor is the standard)
c) Discuss the particular questions that are necessary for you decide how to develop a treatment plan for a patient
d) Describe the risks and benefits for the various treatments for Peyronie’s disease
e) Be able to give a successful penile block in clinic
Objectives for Incontinence, NeuroUrology, and Pelvic Floor Reconstruction Clinic
with Dr. Nakib

Focus: Incontinence (Male and Female), Pelvic Prolapse, Voiding Dysfunction, and Urodynamics

Level: PGY2 (First Year Urology) and PGY3

Minimal Clinic Requirement to Meet Objectives: 10 full clinic days for each year

Overall Goals:

1. Understand basic theories of stress incontinence.
2. Understand interrelationship of pelvic floor prolapse, voiding disorders, incontinence, and various functions of the pelvis.
3. Understand anatomy of the female pelvis and structural support of the urethra and vagina.
4. Understand urodynamic studies.
5. Understand post-prostatectomy incontinence with relationships/contributions of bladder and sphincter and possible obstruction to this entity.
6. Become proficient at female pelvic examination with accurate descriptions of anatomy utilizing the POP-Q system.
7. Know treatments for each form of incontinence including medical and surgical.
8. Learn clinical and surgical skills to allow urologists to properly diagnose and treat pelvic urologic conditions such as incontinence of all varieties, pelvic relaxation, voiding dysfunction, and urodynamic investigations.
9. Deal effectively with quality of life issues in patients with incontinence, voiding dysfunction, pain, and prolapse in light of their overall medical condition/health.

Readings: Reading: Campbell’s Section 5—Voiding Function and Dysfunction

Specific Objectives:

A. Interpersonal and Communication Skills and Professionalism

Interpersonal skills will be crucial as interactions may involve emotional issues with patients who have complex, sometimes mentally exhausting and frustrating problems that have potentially been iatrogenically induced.

1. Conduct patient-centered interviews demonstrating empathy for the patient
2. Demonstrate flexibility in treatment
3. Provide treatment options while reflecting the balance with patient autonomy, understanding, and choice.
4. Conduct a “routine” patient interview. Start from introduction of yourself, identify chief complaint, proceed through HPI, PMH, PSH, PE, and then provide impression and recommendations. A typical “routine” patient would be one with incontinence, pelvic floor dysfunction or disorders, or prolapse.
5. Demonstrate proficiency in examination utilizing POP-Q. List the different areas and possible measurements relative to position in the vagina. Apply this method to at least 3 patients to describe their prolapse.
6. Discuss the risks and benefits pertinent to medical and surgical treatments and apply these to patient care.

B. Patient Care and Medical Knowledge Objectives

**Neurourology**
1. Describe expected (but not necessarily existent) bladder and sphincter functions/dysfunctions according to level of brain/spinal cord pathology.
2. Describe innervation and receptor concentration in different parts of the bladder, bladder neck, and urethra.
3. List the expected urodynamic findings with various levels of brain/spinal cord pathology.
4. Describe work-up, diagnosis, and treatment options for detrusor-sphincter dyssynergia.

**Post-Prostatectomy Incontinence**
1. Discuss the expected contributions of sphincter or bladder or both sphincter and bladder dysfunctions to incontinence.
2. Describe diagnosis of obstruction (by urodynamics or cysto?) and how to best diagnose obstruction in men with PPI.
3. Describe treatment options for men with PPI.

**Voiding Dysfunction**
1. List and discuss the urodynamic classes of obstruction in the male and female.
2. Describe evaluation and treatment of voiding dysfunction/difficulty/retention after anti-incontinence procedures.
3. Describe a diagnosis/treatment algorithm for urethral pain/bladder pain/interstitial cystitis.
4. List 5 anticholinergic medications for OAB and describe their efficacy and side effect profiles and compare and contrast their differences/advantages/disadvantages.
5. Perform at least 5 urodynamic studies (3 women and 2 male). Know how to determine fill rates, define what questions are to be answered before the test and describe how to best test for these conditions. A full cystometry and pressure flow study must be interpreted. Questions originally sought in the testing must be answered.

**Prolapse**
1. List and describe treatment options for various levels and degrees of pelvic organ prolapse.
2. Discuss the evaluation of high-grade prolapse.
3. Describe at least 3 surgical procedures for prolapse.
4. Discuss and defend which prolapse procedures you think are best and why. List the treatment success rates and complication rates for the procedure you choose.
5. Describe symptoms of rectocele and discuss risks/benefits of rectocele repair.
6. Describe how you would surgically fix a cystocele.

**Incontinence**
1. Describe transvaginal and retropubic surgeries for stress incontinence, with advantages/disadvantages of each.
2. Describe evaluation of incontinence and potential incontinence in women with high-grade prolapse.
3. Name 3 good times/patient scenarios to use periurethral collagen in your opinion.
4. Describe symptoms, diagnosis/evaluation of urethral diverticulum.
5. Describe the treatment algorithms for mixed urinary incontinence and describe the urodynamics findings, which may be found in this condition.
6. Describe different mechanisms for stress incontinence in females.
7. Describe work-up/diagnosis/treatment options of urge incontinence in males.
Objectives for Reconstructive Urology Clinic with Dr. Elliott

Focus: Genitourinary Reconstruction

Level: PGY3 and 5

Minimal Clinic Requirement to Meet Objectives: 5 half-day clinics as PGY3 and 2 half-day clinics as PGY5. Depending on clinic case distribution and performance, more clinics may be required.

Introduction to Clinic: Morning clinic starts promptly at 8AM and often runs past 12 noon. Afternoon clinic starts at 1PM and ends approximately at 5PM.

Learning Objectives:
- **Professionalism** –
  - arrive promptly
  - dress appropriately (no scrubs)
  - treat patients and staff with courtesy and respect
- **Patient Communications Skills** –
  - Sit down
  - Talk less, listen more
  - Maintain eye contact
  - Exhibit empathy
- Explain in simple terms the nature of their problem
  - Review the anatomy with them
  - Draw pictures or show x-rays when appropriate
  - Avoid medical jargon
  - Propose an unbiased range of management options, from least to most invasive
  - Review the risks and benefits of each option
  - Allow the patient to choose the management option most appropriate for them
- **Staff Communication Skills** –
  - Deliver a concise yet dense and well organized review of patient’s history, exam, office studies, labs and x-rays.
  - Demonstrate proper judgment in being able to filter out less relevant history/exam and focus on the pertinent portions
  - Use proper terms to describe anatomy and studies so as to effectively communicate your findings
  - List the range of treatment options and why one might be best for a particular patient
- **Referring Physician Communication Skills** –
  - In all dictations be certain to be appreciative of the opportunity to participate in patient’s care.
  - If patient speaks highly of referring physician be sure to mention that in the dictation
  - Avoid cliché’s” like “we had the pleasure of seeing . . .”
- **Clinical Knowledge**
  - Urethral reconstruction
    - Describe the anatomy of the male urethra
    - Perform a RUG/VCUG
- Interpret a RUG/VCUG
- Understand the difference between a flap and a graft
- Understand the range of treatment options for urethral stricture disease, indications and success rates (see reading material)
- Posterior urethral disruption
- Anterior urethral stricture
- Prostate cancer therapy-related strictures

  o Male urinary incontinence
    - Describe an algorithm for evaluation and management of post-prostatectomy incontinence
    - Demonstrate skill at cycling an AUS, locking it and unlocking it

  o Urinary diversion/ureteral reconstruction
    - Describe a range of management techniques for ureteral injury/urinary diversion depending on the level of injury and past medical history including prior surgery and/or radiation
    - Describe the metabolic risks of using the various bowel segments in urinary diversion. Describe complications that may arise from the various forms of diversion (continent and non-continent).

Readings:
Campbell’s chapters on Urinary Diversion and Urethral Reconstruction
Elliott SP, McAninch JW, Chi T, Doyle SM, Master VA.

Management of severe urethral complications of prostate cancer therapy.

Elliott SP, McAninch JW. Ureteral injuries: external and iatrogenic.

Elliott SP, Metro MJ, McAninch JW.
Long-term follow-up of the ventrally placed buccal mucosa onlay graft in bulbar urethral reconstruction.

Santucci RA, Mario LA, McAninch JW. Anastomotic urethroplasty for bulbar urethral stricture: analysis of 168 patients.

Cooperberg MR, McAninch JW, Alsikafi NF, Elliott SP.
Urethral reconstruction for traumatic posterior urethral disruption: outcomes of a 25-year experience.

Elliott SP and McAninch JW.
Penile Skin Flap for Urethral Reconstruction.

Armenakas NA, McAninch JW. Management of fossa navicularis strictures.
Objectives for Pediatric Urology Clinic Experience

Focus: Pediatric Urology

Level: PGY 4 (Third Year Urology)

Minimal Clinic Requirement to Meet Objectives: 10 full-day clinics

Overall Objective: The clinic experience in pediatric urology will expose the resident to all aspects of this specialty. Broadly, the goals of this experience are to understand the methodology of obtaining a complete history in pediatric patients, the elements of a pediatric physical exam, and elucidating clinical diagnoses unique to the field. In addition, there will be exposure to antenatal evaluation of urological abnormalities and appropriate counseling. Children with inguinal/testicular disorders, hypospadias, congenital hydronephrosis, vesicoureteral reflux, obstructive uropathy and neurogenic bladders among other anomalies will be seen. The resident will primarily attend clinic on the university campus every Tuesday from 9 A.M. until 4:30 P.M. Office circumcisions may be scheduled and the resident will be expected to participate in the procedure. The residents are to promptly be in clinic on a consistent basis unless excused for a significant surgical operative experience at the Children’s Hospital of Minnesota campuses. Successful completion of clinical competencies will be predicated on excellence in patient care and in interactions with the children, parents of our patients, comprehensive understanding of pediatric and embryologic concepts and professionalism. The resident will be expected to be well-read, prepared and inquisitive enough to ensure that the latest in evidence based medicine is being administered.

While the resident will be expected to attend the minimum 10 clinics prior to being evaluated for completion of the objectives, it would not be unusual to require a further experience to complete the objectives.

Readings: Pediatric urology chapters in Campbell’s Urology

Conferences:
Pediatric Urology Indications Conference: Every Tuesday morning at 7 AM. The resident will be expected to prepare a summary of all cases to be performed on the pediatric service for the upcoming week.

Radiology-Urology-Nephrology (RUN) Rounds: Every third Tuesday at 5 PM. Resident is expected to prepare case histories for patient presentations as indicated by attending staff prior to conference.

Objectives:
A. Interpersonal and Communication Skills and Professionalism

There are three integral components to the pediatric urology clinic that are consistently present: the attending, nurse practitioner (Anne Boisclair-Fahey), and the nurse who coordinates the clinic. Each are deserving of respect for the knowledge and dedication they bring to their daily endeavors and the resident will be evaluated on interpersonal and communication skills throughout your rotation. The resident will be asked to initiate contact with new patients and obtain a detailed history, complete a physical exam when appropriate and interpret radiological images. The presentation of the patient’s history to the attending will
be evaluated for thoroughness, delivery and understanding of the pathophysiology. The resident should be able to arrive upon a diagnosis and recommend an appropriate treatment plan.

B. Patient Care and Medical Knowledge Objectives

1. Vesicoureteral reflux
   a) List the major categories and examples of questions for obtaining a thorough history of pyelonephritis and vesicoureteral reflux.
   b) Describe the workup of a febrile UTI in a male and female child.
   c) Properly interpret a VCUG and renal ultrasound, and be able to grade vesicoureteral reflux appropriately.
   d) Describe the generally accepted probability of vesicoureteral reflux resolving spontaneously each year and the risk for pyelonephritis.
   e) Describe the risk of untreated vesicoureteral reflux and the advantages of surgically repairing reflux.
   f) List the appropriate and widely accepted treatment strategies for each level of vesicoureteral reflux by age of patient. The resident must know the advantages and disadvantages of each treatment.
   g) Describe the putative advantages and disadvantages of open vs. endoscopic treatment of reflux.

2. Hydronephrosis
   a) Describe the basic components of obtaining a history for hydronephrosis—whether it is antenatally detected or secondary to symptomatology.
   b) Know the role, relevance and reliability of various imaging modalities and when they should be obtained.
   c) Describe the role for non-operative management of hydronephrosis in an evidence based manner.
   d) Describe the role for surgical management and when it should be utilized.
   e) Know the workup and unique treatment alternatives for ureteropelvic junction obstruction vs. ureterovesical junction obstruction (UVJ).
   f) Describe the role, if any, for endoscopic management of UPJ obstruction in the pediatric population.
   g) Know the diagnosis, management, follow-up and long-term implications for posterior urethral valves, ureteroceles and ectopic ureter.

3. Disorders of the testis and scrotum
   a) Discuss the history and physical in a child presenting with a hernia, hydrocele, testis mass or cryptorchidism.
   b) Differentiate between a communicating and non-communicating hydrocele and the timing of intervention for each.
   c) What is the role for contralateral laparoscopic exploration in the pediatric hernia?
   d) Describe the pathophysiology of an indirect hernia and the pediatric approach to its repair.
   e) Demonstrate a comprehensive inguinal and testis exam demonstrating the proper technique for locating a cryptorchid testis.
f) Describe the major long-term implications of cryptorchidism and potential benefits of an orchiopexy.

g) Know the difference between a true cryptorchid testis vs. retractile testis and the appropriate management for each.

h) Be able to describe the varied surgical approaches and options for inguinal vs. abdominal testes and the risks of each procedure.

i) Know the most common testis and paratesticular tumors in the pediatric population.

4. **Hypospadias and Intersex Disorders**

   a) Describe the relevant anatomy, history and physical exam for hypospadias and intersex disorders.
   
   b) Know the most common varieties of intersex disorders.
   
   c) Describe the hormonal and receptor anomalies for the most common intersex disorders and the putative genetic etiology for hypospadias.
   
   d) Describe the most common surgical techniques for the repair of hypospadias and the potential complications of each.
   
   e) Be able to describe the controversies in the surgical repair of intersex disorders, and the alternatives for clitoromegaly, and whether it should be addressed at all.
   
   f) Generally describe when a urogenital mobilization would be recommended vs. a flap vaginoplasty in the repair of congenital adrenal hyperplasia.
   
   g) Know the indications and timing for gonadectomy in children with intersex disorders.

5. **Voiding dysfunction**

   a) The resident will be asked to see patients with voiding dysfunction, incontinence, nocturnal enuresis with Anne Boisclair-Fahey, CPNP at times during the clinical experience.
   
   b) The resident must be able to describe the history and physical tailored to the patient with complaints of voiding dysfunction.
   
   c) Resident should be able to describe etiology of diurnal enuresis, frequency, urgency and frequent UTI’s. Association between constipation and voiding dysfunction should be understood.
   
   d) Describe the Hinman non-neurogenic neurogenic bladder and appropriate treatment.
   
   e) Describe an algorithm for treating voiding dysfunction in an age-appropriate manner.
   
   f) Understand nocturnal enuresis, various etiologies and standard behavioral and pharmacologic therapy.
   
   g) Understand the workup and management of a neurogenic bladder secondary to myelomeningocele in a neonate, toddler and adolescent.

6. **Antenatal Consultation**

   a) Obtain history for antenatal consultation.
   
   b) Describe the relevant aspects for a urologist in an antenatal sonogram and interpret it accordingly.
   
   c) List the most common etiologies for antenatally detected hydronephrosis.
   
   d) Be able to describe the Society of Fetal Urology grading system for hydronephrosis.
   
   e) Be able to correlate the amount of hydroenehrosis, SFU grade, bladder appearance and other factors that determine which post-natal imaging studies need to be obtained.
Dear residents,

Every once in a while it becomes necessary to remind the residents what I expect from them and what they can expect from me. For my part, I will continue, as I have in the past, to try my utmost to make each of you above average residents in a pleasant and fun atmosphere. However, it takes two to tango. I will be by your side every day teaching you as we work together evaluating and operating on patients in hopes of achieving our goal of furnishing the community and universities with excellent urologists whom we are proud to say came from the University of Minnesota urology program, but also in providing exceptional patient care.

For your part, before we do a surgical/cystoscopic case together, I expect that you will know the patient's pertinent urologic history. This means reviewing the cystoscopic cases and pertinent x-rays ahead of time, and the surgical cases the day before, including pertinent urologic and medical history, and having reviewed any x-rays that the patient might have had beforehand. This is what a urologist does in private practice before operating or doing a procedure on his or her patient. This means reviewing the initial urology consult notes and also any pertinent follow up clinic notes leading to the procedure at hand. It also might mean adding any tests that might have been missed. This is not a quiz, but information you should know off the top of your head when you walk into the operating room. It is not satisfactory to say that you reviewed the case the day before, and that on the procedure day you don't know any pertinent details. Unfortunately, this has happened in the past. As long as you know the pertinent history, labs and x-rays on the patient, I will continue to let you do the cases. However, if I inquire about important and crucial aspects of the patient's history, and you don't have the appropriate response, or make up an answer which could lead to inappropriate treatment of the patient, for the benefit of the patient at risk, I will take over the case from you. I will then talk to you in private if you like about why you lost the case, but it will probably be obvious. I don't mean to sound harsh, and you all have great potential, but I'm sure you would agree that you would not want a resident in a hospital performing a procedure or operation on one of your parents, siblings or close friends if they did not know the important aspects of the case.

I also encourage your opinions on patient management, but please keep in mind that I have 30 years of experience in treating urological patients and basic urological management and common sense has not changed much through the years.

Respectfully,
Dr Schwartz
CLINICAL COMPETENCY EVALUATION

Following are clinical objectives that must be passed before a resident is permitted to begin the subsequent year of training. It is the responsibility of the resident and the individual faculty member to complete the required testing and to notify the Program Director when the objectives have been completed. Evaluation of successful completion of the competencies will be obtained through a weekly review and formative feedback cycle, concluding in a 30-minute oral examination. The following clinical competencies must be obtained before proceeding to the next level:

<table>
<thead>
<tr>
<th>PGY Level</th>
<th>Clinic</th>
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<tbody>
<tr>
<td>PGY-2</td>
<td>BPH (Sweet), Andrology</td>
</tr>
<tr>
<td>PGY-3</td>
<td>Reconstructive (Elliott), Stones, Incontinence</td>
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<tr>
<td>PGY-4</td>
<td>Pediatric Urology (Anderson)</td>
</tr>
<tr>
<td>PGY-5</td>
<td>Oncology (Konet/Warlick), Laparoscopy (Anderson)</td>
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