

## **RESIDENT GOALS AND OBJECTIVES BY ROTATION PGY-2**

The following G&O's are representative of the unique experience gained at the individual institutions and represent a subset of the overall G&O's for the PGY-2 year. Duplication of experience in certain areas is expected and may also be reflected in the G&O's below. The General Urology G&O's and Urologic Education Specific G&O's apply to all rotations and will not be further elaborated upon in this section.

Residents should review these G&O's prior to each rotation. Further they should discuss them with the local site director prior to, during and at the conclusion of the rotation to gain feedback and provide input into any revisions necessary.

### **University Hospital**

The University Hospital (UH) is also known as the Bexar County Hospital and as such serves as the main facility for care of the population of the county surrounding San Antonio. It has a level 1 trauma center and accepts many otherwise unfunded or subsidized patients. While at UH, the residents are exposed to a high volume of uro-oncology and general urology cases. There are also two distinct mentorship rotations at UH, the Neuro-Urology focus (Vdys) and the Introduction to Endourology & Stone Disease focus (Endo-1). In addition to the general Goals & Objectives, specific information for these is noted below.

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### **Introduction to Endourology & Stone Disease Focus Rotation (Endo-1):**

This rotation, under the direction of Dr. Timothy Tseng, will introduce residents to all aspects of endourology and stone disease. In addition to cases at UH, the MARC ambulatory surgical center, and the Brady-Green ambulatory surgical center, the resident will have continuity clinics at the Brady-Green clinic and see patients with Dr. Tseng at the MARC clinic.

#### **Specific Goals:**

- Develop a thorough understanding of the pathophysiology of stone disease.
- Develop an understanding of the relationship of other common metabolic conditions with stone formation.
- Develop and understanding of the treatment of stones by expected composition, density, size, and location.
- Develop a thorough understanding of the metabolic evaluation and steps necessary to prevent new stone growth and recurrence after treatment.

#### **Specific Objectives:**

- Be able to recognize the common presentation of stone disease including signs, symptoms, associated complaints, exam findings, laboratory and imaging results.
- Be able to recognize associated findings that modify the urgency and type of treatment including fever, pyuria, UTI, intractable nausea/emesis/pain, etc.
- Be familiar with the current accepted treatment modalities:
  - Medical (expulsive, dissolution, etc.)
  - Endoscopic (ureteroscopic – flexible/semi-rigid; laser, EHL, etc.)

- Percutaneous (placement options, technique)
- Be able to discuss the relative merits of different treatments based upon:
  - Expected composition
  - Size
  - Density
  - Location
  - Comorbid conditions
- Be able to discuss and understand the use of sequential therapies in successful stone management
- Develop endoscopic skills that allow the use of multiple tools and techniques to access the upper urinary tract:
  - Cystoscopy (rigid, flexible)
  - Retrograde catheterization
  - Wire and catheter use techniques
  - Fluoroscopic imaging techniques
  - Ureteral manipulation (dilation, sheath placement, etc.)
  - Ureteroscopy (semirigid, flexible)
    - Atraumatic passage
    - Basket, laser use
    - Stone manipulation
  - Stent placement techniques
- Develop basic skills for percutaneous access and treatment of stones
  - Understand the lie of the calyces with respect to external and radiographic landmarks
  - Image guidance (Ultrasound, fluoroscopic)
  - Percutaneous needle and wire placement
  - Securing access
  - Dilation techniques
  - Nephroscope use with tools for stone destruction/removal
  - Completion of the procedure
- Be able to discuss and plan follow-up management including imaging to assure a successful treatment outcome.
- Be able to discuss, plan and interpret the metabolic stone evaluation.
- Be able to discuss the overall prevention strategy for new stones based upon stone type and metabolic evaluation.

**Mechanism of learning:** Reading, mentoring by upper level residents/faculty, conferences, clinical experience. Radiation & Laser safety course

**Competency:** Medical Knowledge, Patient Care, Technical Skill

**Documentation:** Global Resident Competency Rating Form, Peer & staff 360 Degree Rating Form, Operative Performance Rating Form, Morbidity and Mortality Reports, Patient evaluations

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### **Neuro-urology/Voiding Dysfunction Focus Rotation (Vdys):**

This rotation, under the direction of Dr. Stephen Kraus, will introduce residents to all aspects of neuro-urology, voiding dysfunction and incontinence. In addition to cases at UH, the MARC surgi-center, and the Brady-Green surgi-center, the resident will have continuity clinics at the Brady-Green clinic and see patients with Dr. Kraus at the MARC and VA clinics.

#### **Specific Goals:**

- Develop a thorough understanding of the CNS, spinal and autonomic nerve plexi involved in the storage and micturition.
- Understand the relationship of other physiologic and pathophysiologic processes that affect storage and micturition.
- Develop and understanding of and the skills necessary to perform an adequate urodynamic assessment when indicated.
- Develop an understanding of the nuances of these studies and be able to accurately interpret and report the findings.
- Understand the indications and implications of findings of ancillary studies that can assess lower urinary tract structure & function.
- Develop a thorough understanding of the treatment options for voiding dysfunction and incontinence related to their etiology and comorbid variables.
- Develop a systematic approach to treatment and follow-up for these patients.
- Develop a clear understanding of the management of spinal cord injury patients with respect to voiding and upper tract preservation.

#### **Specific Objectives:**

- Be able to discuss the neurophysiology and neuroanatomy of normal storage and micturition
- Discuss the various receptors and medications available to modulate micturition and storage
- Be able to articulate the history, exam findings, related lab and imaging results necessary to assess storage and voiding problems
- Be able to articulate the indications for imaging, urodynamics, cystoscopy and other studies necessary to complete a thorough evaluation of storage and micturition problems
- Be able to articulate the expected lower urinary tract disorder associated with the level of nervous system injury
- Be able to set up, perform and develop a cogent report for standard and video urodynamics studies
- Be able to interpret the results of standard urodynamic studies
- Be able to accurately document and code for urodynamic studies
- After interpretation, be able to develop a cogent plan for intervention including medical and surgical management.
- Be able to develop and execute a clear follow-up plan after medical intervention including medication adjustment, etc.
- Hone skills in the following surgical procedures related to incontinence and voiding dysfunction:
  - Sling procedures (male & female)
  - Other bladder suspension techniques
  - AUS insertion

- Bladder augmentation
- Botox injections
- Be able to discuss and manage the common post-op course of these operations
- Be able to discuss the management of common complications of these operations
- Be able to develop a follow-up plan for reassessment after intervention with further management options as indicated.

**Mechanism of learning:** Reading, mentoring by upper level residents/faculty, conferences, clinical experience.

**Competency:** Medical Knowledge, Patient Care, Technical Skill

**Documentation:** Global Resident Competency Rating Form, Peer & staff 360 Degree Rating Form, Operative Performance Rating Form, Morbidity and Mortality Reports, Patient evaluations

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### **Basic Pediatric Urology (Ped-1):**

The San Antonio pediatric patient population spans all socioeconomic strata and are generally representative of the pediatric populations in any large metropolitan area. Residents rotate at University Hospital and participate in outpatient clinics (UHS, RBG, MARC) under the tutelage of the Pediatric Urologists (Dr. Goetz, Dr. Baumgartner) from the Health Sciences Center.

#### **Urology Clinical Competency Specific Goals:**

- Further develop evaluation and management skills for the most common pediatric urologic problems.
- Understand the embryology of the GU tract and its significance for genital malformations.
- Develop communication skills to accurately inform and educate patients, their parents and other healthcare professionals.
- Understand the indications for imaging in the context of pediatric presentation and diagnosis or urologic disease processes.
- Understand the indications for diagnostic endoscopy and laparoscopy in the overall context of pediatric urologic care

#### **Objectives:**

Confidently interpret history & clinical data and propose initial treatment/evaluation plans for:

- All levels of pediatric trauma patients
- Ambiguous genitalia
- Dermatologic lesions
- Hematuria
- Incontinence
- Phimosis, Paraphimosis
- Uncomplicated nephrolithiasis
- Pediatric complicated and uncomplicated urinary tract infections
- Dysfunctional voiding
- Neuropathic bladder

- Exstrophy – Bladder, cloacal
- Myelomeningocele
- Undescended testes
- Testis masses
- Testis torsion
- Hydrocoel, hernia
- Hypospadias
- Epispadias
- Phimosis
- Chordee
- Hydronephrosis
- Vesicoureteral reflux
- Ureteropelvic junction obstruction
- Renal dysplasia
- Solid renal mass
- UVJ obstruction
- Nocturnal Enuresis
- Provide appropriate metabolic evaluation of stones.
- Provide appropriate staging evaluation of pediatric neoplasms.
- Appropriately request, perform and interpret pediatric urodynamics procedures
- Clearly describe the indications for and be able to interpret the result of:
  - Ultrasonography
  - VCUg
  - CT
  - MRI, MRU
  - Nuclear scintigraphy including the selection of imaging agents
- Clearly describe the indications for cystoscopy and laparoscopy and the appropriate preoperative evaluation and patient preparation for each.
- Read for and be actively involved as the urologic consultant in the multidisciplinary spina bifida clinic.
- Be able to discuss findings, diagnoses and treatment plans in lay terms.
- Be able to discuss the same with a more sophisticated consultant or attending staff.

**Mechanism of learning:** Reading, mentoring by upper level residents/faculty, conferences, clinical experience.

**Competency:** Medical Knowledge, Patient Care, Practice-based learning & Improvement, Professionalism.

**Documentation:** Global Resident Competency Rating Form, Observed Patient Encounter Rating Form, 360 Degree Rating Form, Patient evaluations.

**Emergent, Consultation & Inpatient Care Goals:**

- Demonstrate continued provision of the highest level of care based upon the previous year's experience.

- Demonstrate expansion of the skills learned on the previous pediatric general surgery rotations to manage the acute and chronic health issues of the service's patients and consult patients.
- Further develop confidence and leadership skills with the hospital team.
- Demonstrate the development of added efficiency of Evaluation & Management skills while seeing patients in the ER.
- Demonstrate effectiveness in patient care by rounding at least twice daily on all service patients and as needed for in-house consult patients.
- Demonstrate efficient use of time by being prepared with patient information as it becomes available and integrating the information into the care plan in real time.
- Develop skills to prevent and manage post-operative complications
- Develop teaching skills to assist the more junior residents and students on the service.
- Develop communication skills to accurately communicate with patients, their families and other health care professionals regarding patient care issues and treatment plans.

**Objectives:**

- Appropriately request and interpret postoperative tests/data on urology inpatients & ICU patients.
- Be able to discuss details of the treatment plan and findings equally well with a highly sophisticated (other staff, attendings, consultants) and less sophisticated (patient, family) group.
- Read for and be actively involved as the urologic consultant for the SRCC ER and hospital inpatient services.
- Write efficient, concise progress notes on all urology patients in the intensive care unit or ward with the input from the senior residents and attending staff.
- Recommend and provide appropriate postoperative management following major surgical procedures including:
  - Circumcision
  - Hypospadias repair
  - Orchiopexy
  - Hydrocoel, hernia repair
  - Ureteral reimplantation
  - Valve ablation
  - Ureteroscopic and Percutaneous stone procedures
  - Bladder augmentation
  - Pyeloplasty

**Mechanism of learning:** Reading, mentoring by upper level residents/faculty, conferences, clinical experience.

**Competency:** Medical Knowledge, Patient Care, Interpersonal & Communication skills, Professionalism.

**Documentation:** Global Resident Competency Rating Form, Observation on rounds, Peer & Staff 360 Degree Rating Form, Patient evaluations.

**Urology Specific Surgical Skills Goals:**

- Develop a further understanding of the anatomy related to Urologic surgical procedures.

- Understand the indications for urologic surgical interventions along with an appreciation of the risks & benefits and alternative treatments available for each condition.
- Develop an understanding and familiarity with urologic instrumentation.
- Continue to foster an attitude of patient safety in all surgical care.
- Understand and work to prevent the potential complications and adverse events of the procedures performed.
- Understand the reasons for and become familiar with the management of complications related to urologic procedures.
- Develop an understanding of radiologic techniques commonly used by the pediatric urologists in clinic and the OR.
- Develop more refined skills of endoscopy and improve the efficiency and precision of outpatient and minor OR procedures.
- Develop the knowledge base and confidence to take on more complicated endoscopic cases
- Develop the knowledge base and confidence to begin major open and laparoscopic cases.

### **Objectives:**

- Demonstrate the safe use of fluoroscopy equipment in the operating room including the proper use of shielding for personnel and patient as appropriate.
- Demonstrate the correct and successful use of ultrasound for diagnosis of renal and bladder pathology and post-void residual urine measurements.
- Demonstrate an understanding of anatomy, indications, risks & benefits, familiarity with instrumentation and logical operative steps for the following:

#### Open Surgery:

- Opening and closing abdominal & flank incisions
- Hypospadias repair (pediatric)
- Orchidopexy (pediatric)
- UPJ repair (Pyeloplasty)
- Nephrectomy (pediatric)
- Ureteral reimplant (Pediatric)
- Hydrocoel and hernia repair (Pediatric)
- Appendicovesicostomy
- Assist on urologic procedures on high risk patients

#### Endoscopic, Laparoscopic & Robotic Surgery:

- Cystoscopy (pediatric)
- Ureteroscopic stone surgery
- Percutaneous Nephrostolithotomy
- Percutaneous bladder surgery
- Resection of valves (pediatric)
- Laparoscopy for undescended testes
- Pyeloplasty

### **Minor GU procedures:**

It is expected that the resident will participate in the following procedures as surgeon or first assistant as they come up during the rotation. These may be supervised by a more senior resident or directly by the attending staff. The general format for developing competence will again be contingent upon demonstration of adequate pre-op evaluation, appropriate indication,

preparation, handling of the instrumentation & fluid completion of the procedure, and post-op care.

- Scrotal incisions, excisions
- Orchiopexy for torsion
- Suprapubic tube placement
- Varicocelectomy/ligation
- Circumcision/dorsal slit
- Excision of genital skin lesions

**Mechanism of learning:** Reading, mentoring by upper level residents/faculty, conferences, clinical experience. Radiation & Laser safety course.

**Competency:** Medical Knowledge, Patient Care, Technical Skill.

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### **General Urology Inpatient & Outpatient Minor Procedures (Urol-2):**

#### **VA Hospital**

The Audie L. Murphy Memorial VA Hospital is a tertiary referral center for veterans throughout south Texas. Though demographics are changing slowly, the patient population is largely older males from various socioeconomic strata.

#### **Urology Clinical Competency Specific Goals:**

Further develop evaluation and management skills for the most common urologic problems. Develop communication skills to accurately inform and educate patients and other healthcare professionals.

#### **Objectives:**

- Confidently interpret history & clinical data and propose initial treatment/evaluation plans for:
  - Hematuria
  - Incontinence
  - Priapism
  - Peyronie's disease
  - Phimosis, Paraphimosis
  - Obstructive voiding symptoms
  - Elevated PSA
  - Prostatitis syndromes
  - BPH
  - Uncomplicated nephrolithiasis
  - Impotence & ejaculatory disorders
  - Adult complicated and uncomplicated urinary tract infections
- Provide appropriate metabolic evaluation of stones, hypogonadism, adrenal masses



- Provide appropriate staging evaluation of newly-diagnosed neoplasms.
- Be able to discuss findings, diagnoses and treatment plans in lay terms.
- Be able to discuss the same with a more sophisticated consultant or attending staff.

**Mechanism of learning:** Reading, mentoring by upper level residents/faculty, conferences, clinical experience.

**Competency:** Medical Knowledge, Patient Care, Practice-based learning & Improvement, Professionalism.

**Documentation:** Global Resident Competency Rating Form, Observed Patient Encounter Rating Form, 360 Degree Rating Form, Patient evaluations.

**Emergent, Consultation & Inpatient Care Goals:**

- Continue to provide the highest level of care based upon the previous years' experience.
- Further develop confidence and leadership skills with the hospital team.
- Use the skills learned on the previous general surgery rotations to manage the acute and chronic health issues of the service's patients and consult patients.
- Demonstrate the development of added efficiency of Evaluation & Management skills while seeing patients in UCC.
- Demonstrate effectiveness in patient care by rounding at least twice daily on all service patients and as needed for in-house consult patients.
- Write efficient, concise progress notes on all urology patients in the intensive care unit or ward with the input from the senior residents and attending staff.
- Demonstrate efficient use of time by being prepared with patient information as it becomes available and integrating the information into the care plan in real time.
- Develop skills to prevent and manage post-operative complications
- Develop teaching skills to assist the more junior residents and students on the service.
- Develop communication skills to accurately communicate with patients, their families and other health care professionals regarding patient care issues and treatment plans.

**Objectives:**

- Appropriately request and interpret postoperative tests/data on urology inpatients & ICU patients.
- Be able to discuss details of the treatment plan and findings equally well with a highly sophisticated (other staff, attendings, consultants) and less sophisticated (patient, family) group.
- Recommend and provide appropriate postoperative management following major surgical procedures including:
  - Cystectomy
  - Partial and total nephrectomy
  - Radical prostatectomy
  - Transurethral resection of the prostate
  - Transurethral resection of bladder tumor
  - Ureteroscopic and Percutaneous stone procedures
  - AUS & penile prosthesis placement

**Mechanism of learning:** Reading, mentoring by upper level residents/faculty, conferences, clinical experience.

**Competency:** Medical Knowledge, Patient Care, Interpersonal & Communication skills, Professionalism.

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- Develop an understanding and familiarity with urologic instrumentation.
- Continue to foster an attitude of patient safety in all surgical care.
- Understand and work to prevent the potential complications and adverse events of the procedures performed.
- Understand the reasons for and become familiar with the management of complications related to urologic procedures.
- Develop an understanding of radiologic techniques commonly used by the urologists in clinic and the OR.
- Develop more refined skills of endoscopy and improve the efficiency and precision of outpatient and minor OR procedures.
- Develop the knowledge base and confidence to take on more complicated endoscopic cases
- Develop the knowledge base and confidence to begin major open and laparoscopic cases.

### **Objectives:**

- Demonstrate the safe use of fluoroscopy equipment in the operating room including the proper use of shielding for personnel and patient as appropriate.
- Demonstrate the correct and successful use of ultrasound for diagnosis and biopsy of prostate lesions and post-void residual urine measurements.
- Demonstrate an understanding of anatomy, indications, risks & benefits, familiarity with instrumentation and logical operative steps for the following:

#### Open Surgery:

- Opening and closing abdominal & flank incisions including the midline, subcostal, chevron, thoracoabdominal, Gibson, lumbotomy and flank incisions.
- Correction of Peyronies Disease
- Placement of initial penile prosthesis or AUS
- Pelvic lymph node dissection
- Urostomy revision
- Urologic laser use
- Circumcision (adult)
- Ureteral reimplant (adult)
- ESWL
- Assist on urologic procedures on high-risk patients

#### Endoscopic Surgery:

- Cystoscopy (Adult)
- Transurethral resection of papillary bladder tumor

- Incision of urethral stricture
- PCNL
- Ureteroscopy (diagnostic and therapeutic)
- Transurethral incision of the prostate
- Cystolitholapaxy
- Holmium and KTP laser use

**Minor GU procedures:**

It is expected that the resident will participate in the following procedures as surgeon or first assistant as they come up during the rotation. These may be supervised by a more senior resident or directly by the attending staff. The general format for developing competence will again be contingent upon demonstration of adequate pre-op evaluation, appropriate indication, preparation, handling of the instrumentation & fluid completion of the procedure, and post-op care.

- Scrotal incisions, excisions
- Orchiopexy for torsion
- Intracorporal injection
- Suprapubic tube placement
- Stent removal
- Retrograde pyelography
- Simple and radical orchiectomy
- Adult hydrocele repair
- Varicocelectomy/ligation
- Spermatocelectomy
- Circumcision/dorsal slit
- Excision of genital skin lesions
- Vasectomy

**Mechanism of learning:** Reading, mentoring by upper level residents/faculty, conferences, clinical experience. Radiation & Laser safety course.

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