

## MEDICAL STUDENT CLERKSHIPS

Medical students rotate on Urology service on a periodic basis. Generally, they include those MS-3's who are on a component of their surgical rotation as well as medical students from other institutions who have an interest in the Urology program at UTHSCSA. There are generally 2-6 senior medical students (MS-4) who will rotate either on clinical or research rotations at UTHSCSA due to an interest in Urology. These rotations are generally during the months of July through October due to the early Urology match. The students are assigned equally to the VA, Pediatric & University Hospital and switch services weekly. **Residents have a primary teaching responsibility for these students during their rotations.** To help in the resident's development as a teacher, medical student goals & objectives are outlined below and should form the basis for instruction. The students should present their own patients during rounds and one short didactic presentation on a topic of relevance at a designated conference during the rotation. These topics are generally derived from recent review articles or the AUA update series.

Starting in 2017, the MS-4 rotations changed to allow more of a mentorship model. Each MS-4 will participate in the ward patient care but will be allowed to shadow attending staff in their clinic and their OR each week. This will allow the attending staff to get to know the students better and hopefully improve the overall educational experience for the students. Additionally, the MS-4's will be responsible for a brief 15' presentation on a urologic topic of interest. The presentation should be concise and based upon a review of the current literature. A short bibliography should be provided as well.

### MS 3 Clerkship Goals and Objectives

#### Objectives

1. GU Imaging:
  - Understand various imaging studies for the urinary tract and their indications.
  - Understand the safe use of intravenous contrast
  - Demonstrate the ability to interpret imaging studies of the urinary tract
2. Urinalysis:
  - Demonstrate how to perform and interpret a urinalysis and urine microscopy
3. Hematuria:
  - Understand and be able to list the common causes for hematuria
  - Be able to describe an adequate evaluation of hematuria
  - Know when it is appropriate to initiate and refer a patient for completion of a hematuria evaluation
4. Pediatric/Adolescent Urology:
  - Be able to discuss the most common congenital anomalies seen in the newborn
  - Discuss the differential diagnosis, evaluation and treatment of a painful, swollen testicle
  - Be able to discuss the pros and cons of circumcision and when it is contraindicated

5. Oncology:
  - Understand the risk factors for renal, urothelial, penile, and testicular malignancies
  - Understand the current tools for GU cancer detection including urinalysis (for renal and urothelial cancer) and PSA (as an adjunct in prostate cancer detection)
  - Be able perform an adequate rectal exam and detect a prostate that is suspicious for malignancy on rectal examination
  - Achieve a basic understanding of the four management options for urologic malignancies and their follow up
  
6. Urinary Calculi:
  - Know the typical presentations of a kidney stone
  - Understand the typical presentation of a uric acid stone
  - Learn the four indications to admit patients with a renal stone
  - List and describe the various surgical stone treatments (Shock wave lithotripsy, endoscopic and percutaneous)
  
7. Impotence:
  - Demonstrate the ability to take a good sexual history
  - Be able to discuss the options available to these patients and their partners
  - Understand the indications and contraindication of type-5 phosphodiesterase inhibitors (e.g. sildenafil, vardenafil, tadalafil)
  
8. Lower Urinary Tract Symptoms including Benign Prostate Enlargement:
  - Learn the irritative and obstructive voiding complaints
  - Learn the medical and anatomic causes of urinary obstruction
  - Learn to recognize and appropriately manage post-obstructive diuresis
  - List medical and surgical therapies for BPH
  - Understand how to safely prescribe and the side effects of alpha-blockers, 5-alpha-reductase inhibitors and anticholinergics
  
9. Incontinence:
  - List two bladder specific and two urethral/sphincteric specific causes for incontinence
  - Understand the following three mechanisms of incontinence (stress, urge, and overflow)
  - Learn the medicines which may result in a neuropathic bladder
  - List risk factors of stress urinary incontinence
  
10. Foley Catheter Placement:
  - Learn and demonstrate the proper technique of foley catheter placement
  - Describe what a coude catheter is and how it works
  - Describe how to determine proper placement and when to suspect faulty placement of the catheter
  - Learn when to request to a consultation of with a Urologist for catheter issues

#### 11. GU Trauma:

- Learn when it is appropriate to consult a Urologist
- Learn the three basic signs of urethral trauma and when a urethrogram is required
- Learn the two basic types of bladder injuries and how they are typically managed

#### 12. Urinary Tract Infections:

- Describe the typical presentations of acute and chronic bacterial prostatitis, pyelonephritis, and urethritis
- Describe the minimal evaluation for a UTI in a child and a man

#### **Recommended Resources:**

- Urology. Michael T. McFarlane: House Officer Series, 5<sup>nd</sup> edition.
- PENN Clinical Manual of Urology. Hanno et al: 2<sup>nd</sup> edition.
- Urology - Lecture Notes. Kaisary, Ballaro and Pigott , current edition.
- AUA Medical Student Curriculum (<http://www.auanet.org/education/education-for-medical-students.cfm>).

#### **Inpatient Care Responsibilities:**

As an active participant of the team, you have several important responsibilities. The efficient running of the service and your development as a professional depend on your acceptance of these responsibilities. Please be punctual, industrious, compassionate, dependable, and honest. This is the time in your career in which you form the work habits which will determine the quality of care that your patients receive and your reputation as a physician. Irrespective of your interest in Urology, your patients and colleagues depend upon you. The demonstration of these qualities is actually more important than the demonstration of facts specific to Urology. A knowledgeable doctor that is unreliable, lazy or insensitive is rarely valued.

#### **Ward:**

- Every patient admitted to the hospital is followed by a medical student. In general, students follow the patients in which they assist in admitting or surgery.
- Students are expected to round on their patients before morning rounds to collect the patient's vital signs, record input and output, overnight events. The patient's chart, data entered on the computer, and patients' nurses are excellent resources.
- Students should present a concise summary of their patient and this data to the Chief Resident on morning rounds and the Attending on evening rounds.
- You are expected to be knowledgeable of diagnostic information gathered on your patient through their course and report this information on rounds.
- You should have the first opportunity to place catheters and intravenous access for you patient.

**Operating Room:**

- A medical student is expected to scrub in for most operative cases.
- You should meet your patient prior to surgery in the holding area and review their history.
- You help the Anesthesiologist transport the patient to the operating room.
- You learn how to write post-operative orders for common procedures.
- You help the Anesthesiologist transport the patient to the recovery room.
- You check on your patient post-operatively and write a post-operative note in their chart.

**Outpatient Clinics:**

The MS-4's will be assigned to faculty clinics at the beginning of the rotation. They will be released to attend and assist at these clinics with the faculty as well as the faculty OR during the week. Specific instructions will be up to the faculty, though it is expected that students will dress respectfully (no scrubs).

In clinic, you will learn how to evaluate the typical conditions seen in a urology office. When examining female patients, male students must have a chaperone. Female students are encouraged to request a chaperone when they feel the need.

A rectal exam is usually required in every male patient. In order to properly screen your patients for prostate cancer and BPH in the future, you must perfect your skill in this simple but subtle examination.

**Medical Student Conference Responsibilities:**

All students are required to attend the scheduled Urology conferences including the resident conferences noted above and the medical student conference held weekly with the administrative chief resident. Students must be released from clinical responsibilities during these times. Additionally, each student will be required to do a short (10' - MS-3; 15' - MS-4) presentation on a selected Urology topic during the rotation. Residents may assist in the selection and development of the presentation as needed.