

GENITOURINARY RECONSTRUCTION & TRAUMA

PGY 3 OBJECTIVES

MEDICAL EXPERT

Basic Science Knowledge Learn and apply penile and urethral anatomy as it relates to vascularity, innervation and fascial layers.
Learn and apply male perineal anatomy (Colles fascia, superficial and deep perineal compartments).
Define graft and describe the factors responsible for successful graft take.
Define flap and describe the following flaps with regard to their vascularity and elevation technique (axial, random, island, free flap)

Clinical Knowledge Become familiar with methods of temporarily diverting urine after genitourinary reconstruction (Foley catheter, suprapubic catheter, urethral splints)
Urethral-vesical drip stent
Learn the indications for tissue transfer techniques in urethral and genital reconstruction.
Understand the concepts and indications for urologic prostheses.
Learn the relative success rates and contra-indications of the various modalities used to treat urethral stricture disease
Dilatation
Direct vision internal urethrotomy (DVIU)
Urolume stents
Open reconstruction
Learn to properly diagnose, stage (AAST classification) and manage renal trauma with regard to the following:
Contusion
Hematoma (subcapsular, peri-nephric, etc)
Laceration
Vascular injuries
Learn the indications for imaging in renal trauma
Learn the complications (acute and chronic) of renal trauma
Learn to diagnose and stage bladder injuries.
Extra-peritoneal
Intra-peritoneal
Contusion
Iatrogenic
Learn the indications for exploration and repair of bladder injuries (intra- & extra-peritoneal).
Properly assess a trauma patient with regard to screening for urologic injuries
Learn to properly diagnose and stage urethral stricture disease with regard to stricture length, location, etiology and associated spongiofibrosis

Recognition and Management of Emergencies Know the indications for emergent operative exploration of injuries to the genitourinary tract.

GENITOURINARY RECONSTRUCTION & TRAUMA**PGY 3 OBJECTIVES**

CONTINUED . . .

<i>Technical and Procedural Skills</i>	Learn the indications for and perform retrograde urethrography Learn to perform and interpret a trauma (“stress”) cystogram Understand and treat basic male genital disorders: Balanitis xerotica obliterans Meatal stenosis Paraphimosis, phimosis Congenital curvature Minor trauma
<i>Specific Clinical Expectations</i>	Expected to attend eight ambulatory clinics with Dr. Keith Rourke. Expected to attend four ambulatory cystoscopy clinics with Dr. Keith Rourke Expected to attend Department of Surgery Trauma rounds three times during rotation

GENITOURINARY RECONSTRUCTION & TRAUMA

PGY 4 AND PGY 5 OBJECTIVES

MEDICAL EXPERT

<i>Basic Science Knowledge</i>	Reinforce the principles learn from the junior rotation Describe in detail the surgical options for strictures of the: Fossa navicularis Penile urethra Bulbous urethra Pelvic fracture with urethral distraction defect Complex strictures with associated fistulae and/or abscess Post-TUR strictures Describe the utility of the following flaps commonly used in urologic reconstruction: Penile skin island flap (Quarthey, Duckett, Orandi) Scrotal island flap (Blandy) Tunica dartos flap (Jordan) Gracilis muscle flap Omental (interposition) flap Ulnar/radial forearm flap Acute management of the traumatically disrupted lower genito-urinary tract Urethra Bladder Scrotum Learn to manage sexual dysfunction associated with Peyronie's disease Medical Management Surgical options (plication, plaque incision/excision with grafting, penile prosthesis +/- intraoperative modeling) Understand the unique difficulties experienced in treating adult and complex (failed) hypospadias Learn the indications for emergent exploration of a renal trauma patient Understand the principles of traumatic renal reconstruction Complete renal exposure Debridement Hemostasis Collecting system repair Vessel repair Closure & coverage of parenchymal defect Learn the indications for exploration and repair of bladder injuries Properly diagnose and stage injuries to the ureter
<i>Clinical Knowledge</i>	As per junior rotation.
<i>Recognition and Management of Emergencies</i>	Learn to manage major traumatic genital skin defects Fournier's gangrene Penile degloving injuries Penile amputation injuries Know the indications for emergent renal exploration in the setting of trauma

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PGY 4 AND PGY 5 OBJECTIVES

CONTINUED . . .

<i>Technical and Procedural Skills</i>	<p>Perform standard reconstructive urologic techniques:</p> <ul style="list-style-type: none">Urethral stricture excision and primary anastomosis for a short segment bulbous urethral strictureOperative exposure of penile neurovascular structuresMobilization of urethra from its perineal investmentsImplantation of penile prosthesesSimple graft onlay/suturing techniquesCorrection of penile curvature – congenital and acquiredImplantation and contra-indications of the artificial urinary sphincterA stepwise approach to the maneuvers used to achieve a tension free anastomotic repair of a posterior urethral distraction defectLearn to harvest and to describe the indications and merits of grafts used in urologic reconstructionBuccal mucosaDermisGenital skinSplit thickness (extra-genital) skin graftFull thickness (extra-genital) skin graftBladder mucosaDemonstrate the principles of early vascular control when exploring a renal traumaPerform a trauma nephrectomyIn the setting of ureteral trauma properly perform and know the indications (& contra-indications) for:<ul style="list-style-type: none">Uretero-ureterostomyUreterocystostomyPsoas bladder hitchBoari flapOperatively treat both intra-peritoneal and extra-peritoneal bladder injuries
<i>Specific Clinical Expectations</i>	<p>Expected to attend four ambulatory clinics with Dr. Keith Rourke. Expected to attend Department of Surgery Trauma rounds three times during rotation</p>
