

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.

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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: <ul style="list-style-type: none">• lichen sclerosus et atrophicus• Meatal stenosis• Paraphimosis, phimosis• congenital curvature• Minor trauma
<i>Specific Clinical Expectations</i>	Expected to attend one ambulatory clinics per each four week block rotation with Dr. Keith Rourke.

Revised September 2010

GENITOURINARY RECONSTRUCTION & TRAUMA

PGY 4 AND PGY 5 OBJECTIVES

MEDICAL EXPERT

Basic Science Knowledge

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 (Quartey, 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

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.

<i>Clinical Knowledge cont...</i>	<p>Learn the relative success rates and contra-indications of the various modalities used to treat urethral stricture disease</p> <ul style="list-style-type: none"> • Dilatation • Direct vision internal urethrotomy (DVIU) • Urolume stents • Open reconstruction <p>Learn to properly diagnose, stage (AAST classification) and manage renal trauma with regard to the following:</p> <ul style="list-style-type: none"> • Contusion • Hematoma (subcapsular, peri-nephric, etc) • Laceration • Vascular injuries <p>Learn the indications for imaging in renal trauma</p> <p>Learn the complications (acute and chronic) of renal trauma</p> <p>Learn to diagnose and stage bladder injuries.</p> <ul style="list-style-type: none"> • Extra-peritoneal • Intra-peritoneal • Contusion • Iatrogenic <p>Learn the indications for exploration and repair of bladder injuries (intra- & extra-peritoneal).</p> <p>Properly assess a trauma patient with regard to screening for urologic injuries</p> <p>Learn to properly diagnose and stage urethral stricture disease with regard to stricture length, location, etiology and associated spongiofibrosis</p>
<i>Recognition and Management of Emergencies</i>	<p>Learn to manage major traumatic genital skin defects</p> <ul style="list-style-type: none"> • Fournier’s gangrene • Penile degloving injuries • Penile amputation injuries <p>Know the indications for emergent renal exploration in the setting of trauma</p>
<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 stricture • Operative exposure of penile neurovascular structures • Mobilization of urethra from its perineal investments • Implantation of penile prostheses • Simple graft onlay/suturing techniques • Correction of penile curvature – congenital and acquired • Implantation and contra-indications of the artificial urinary sphincter • A stepwise approach to the maneuvers used to achieve a tension free anastomotic repair of a posterior urethral distraction defect <p>Learn to harvest and to describe the indications and merits of grafts used in urologic reconstruction</p> <ul style="list-style-type: none"> • Buccal mucosa • Dermis • Genital skin • Bladder mucosa

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PGY 4 AND PGY 5 OBJECTIVES

CONTINUED . . .

*Technical and
Procedural Skills
cont...*

- Split thickness (extra-genital) skin graft
- Full thickness (extra-genital) skin graft

Demonstrate the principles of early vascular control when exploring a renal trauma

Perform a trauma nephrectomy

In the setting of ureteral trauma properly perform and know the indications (& contra-indications) for:

- Uretero-ureterostomy
- Ureterocystostomy
- Psoas bladder hitch
- Boari flap

Operatively treat both intra-peritoneal and extra-peritoneal bladder injuries

*Specific Clinical
Expectations*

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