

Urologic Surgery Fellowship curriculum

Year 1

Clinical and Surgical Training:

- Penile Implant Surgery
- Hands-on practice with graded responsibility for both inflatable and semi-rigid implants
- Techniques for managing complications, including infection and mechanical failure
- Supervision by faculty during initial cases, transitioning to primary responsibility by the end of the year
- Artificial Urinary Sphincter
- Step-by-step training in the implantation of AUS, troubleshooting mechanical failures, and managing post-operative complications
- Fellows will focus on appropriate patient selection, patient counseling, and setting realistic expectations for outcomes
- Urethral Stricture Surgery
- Techniques in excision and anastomosis, use of buccal mucosa grafts, and other reconstructive approaches
- Experience in managing recurrent strictures, complex stricture disease, and post-surgical complications
- Fellows will take on more advanced cases and gain confidence in performing urethral reconstructions independently
- Upper Urinary Tract Reconstruction
- Robotic and laparoscopic training for upper tract procedures, such as pyeloplasty, nephrectomy, and ureteral reimplantation
- Focus on minimally invasive techniques with an emphasis on outcomes and complication avoidance
- Fellows will gradually transition to primary responsibility for these complex surgeries
- Urinary Incontinence Surgery
- Learning techniques for male sling procedures, transobturator slings, and minimally invasive approaches to female incontinence
- Exposure to various causes of incontinence, both male and female, and understanding the role of surgical management
- Fellows will develop an understanding of multi-disciplinary collaboration for treating incontinence
- Fistula Repair
- Exposure to fistula repair, including vesicovaginal, ureterovaginal, and rectovaginal fistulas
- Emphasis on diagnosis, surgical techniques, and post-operative care
- Fellows will gain experience with both transabdominal and vaginal approaches to fistula repair
- General Urology
- Fellows will take on both basic and advanced urology cases (including benign and malignant conditions)

- Increased responsibility for managing patient care, assisting in surgeries, and performing procedures under supervision
- Fellows will work closely with faculty to understand the integration of general urology into reconstructive practice

Academic and Research Development:

- Quarterly Journal Club
- Fellows will select and present relevant research papers on reconstructive urology topics
- Peer review and critical analysis of the latest advancements in the field
- Focus on discussing study designs, methodologies, and outcomes for clinical relevance
- Research Block (1 month)
- Dedicated time for fellows to focus on their chosen research projects, related to reconstructive urology
- Opportunity to explore clinical, anatomical, or technical questions in reconstructive urology
- Fellows will present their findings to faculty and peers at the end of the research month
- Simulation Lab
- Fellows will practice complex procedures using 3D-printed models and virtual reality simulators
- Simulation-based training will focus on improving surgical techniques and decision-making skills in a controlled environment
- Fellows are expected to have at least one published paper per year
- Research will focus on reconstructive urology, including clinical outcomes, novel techniques, and innovative approaches

Teaching and Mentorship:

- Teaching NOSM U Urology Residents
- Fellows will participate in leading some weekly teaching sessions for urology residents, covering both clinical and surgical topics
- Fellows will gain experience in developing teaching materials and guiding residents through their clinical and surgical rotations
- Fellows will also have the opportunity to participate in didactic lectures, workshops, and small group discussions
- Ongoing Mentorship
- Regular feedback sessions with faculty members to discuss progress, clinical skills, and professional development
- Fellows will receive mentorship to enhance their surgical decision-making, academic productivity, and patient management skills
- The mentorship model will focus on individual career aspirations and academic interests, with tailored guidance

Clinical Exposure:

- 1-2 Days of Clinics per Week
- Fellows will independently run outpatient clinics, managing patient consultations, follow-ups, and complex case discussions

- Emphasis on developing clinical reasoning, patient communication, and establishing long-term treatment plans
- Fellows will work alongside faculty members to manage challenging cases, including those requiring multidisciplinary care
- 1-2 Days of Surgery per Week
- Fellows will participate in surgeries, focusing on reconstructive urology procedures
- Progressive responsibility in the operating room, starting with assistance and advancing to performing surgeries independently
- Fellows will gain exposure to a wide variety of reconstructive surgeries, with a focus on complex cases
- Call (1 in 4)
- Fellows will participate in an on-call schedule starting in the first year, taking call 1 in 4 days (depending on the number of residents). This will be following PARO rules
- Fellows will handle both reconstructive urology and general urology emergencies, including trauma, infections, and complications

Year 2

Clinical and Surgical Training:

- Advanced Penile Implant & Artificial Urinary Sphincter Surgery
- Fellows will manage complex implant cases, including revision surgeries, complication management, and multi-stage surgeries
- Fellows will be expected to operate with minimal supervision on more challenging cases
- Opportunity to be the primary surgeon for a wider variety of cases
- Advanced Urethral Stricture & Upper Urinary Tract Reconstruction
- Fellows will handle more complex stricture cases, such as multi-level strictures, and advanced upper tract reconstructions
- Fellows will work on cases requiring the use of advanced techniques, such as robotic reconstructions and complex anastomoses
- Independent decision-making with faculty support and guidance
- Continued Work in Urinary Incontinence & Male Slings
- Advanced techniques in male slings and management of recurrent incontinence
- Fellows will lead surgical teams for complex cases, with supervision as needed
- Fistula Repair
- Fellows will be involved in more challenging fistula repair surgeries and multi-disciplinary discussions for complex cases
- Focus on refining surgical techniques and ensuring post-operative success
- General Urology
- Continued exposure to general urology cases, including both benign and malignant conditions
- Fellows will take full responsibility for managing complex general urology cases under the supervision of attending surgeons

Research & Development:

- Research Block (1 month)
- Fellows will dedicate one month to research each year, with a focus on reconstructive urology topics
- Research will be designed with the intention to present at major urology conferences
- Fellows will complete a comprehensive research project, which will be expected to be submitted for publication
- Presentation at GURS, CUA, and AUA
- Fellows will present research findings at conferences such as the Genitourinary Reconstructive Surgery (GURS) meeting, Canadian Urological Association (CUA), and American Urological Association (AUA)
- Fellow's research and clinical outcomes will be evaluated for inclusion in international journals and presentations

Clinical Exposure and Call:

- 1-2 Days of Clinics per Week
- Continued independent management of complex cases
- Fellows will have the opportunity to independently follow-up with long-term patients, assessing outcomes of surgical interventions
- 1-2 Days of Surgery per Week
- Fellows will take leadership roles in surgeries, refining their skills and developing teaching abilities
- Call (1 in 4-6) (depending on the number of residents). This will be following PARO rules
- Fellows will continue to take on-call duties, handling a wide variety of reconstructive urology and general urology emergencies

Teaching and Mentorship:

- Quarterly Journal Club
- Fellows will lead discussions and mentor residents on reconstructive urology topics
- Increased emphasis on teaching residents how to critically assess literature and apply research findings to clinical practice
- Fellows will receive regular mentoring, with an increasing focus on transitioning into practice and preparing for independent careers in academic or community practice

Mentorship Post-Fellowship:

- Continued Mentorship
- Mentorship will continue into the early years of practice to ensure fellows successfully transition into independent practice
- Faculty will provide ongoing guidance through remote meetings, email communication, and discussion of challenging cases