

Queen's University

Surgical Foundations Rotation *Specific Objectives: **Urology***



The following document is intended to guide you in some of the specific knowledge and skills you should develop on this rotation. This document is intended to augment but not replace the “Objectives of Training and Specialty Training Requirements in Surgical Foundations”. A copy of these documents is supplied in your residency handbook and is also available on the Queen’s University Surgical Foundations web site (MEdTech).

The resident is expected to be able to describe the rotation specific objectives prior to or at the commencement of the rotation.

Medical Expert

Knowledge: Basic Science and Anatomy

The resident on Urology will understand normal renal physiology and bladder physiology as well as the normal anatomy of the kidney, ureter, bladder, and urethra as well as the vascular supply to these organs. The relationship of the ureter and its normal course from kidney to bladder is very important.

Knowledge of the relations of the prostate, bladder and pelvic floor/sphincter within the pelvis, as pertains to the function of the lower urinary tract and the relationship with the vagina, cervix, uterus, sigmoid colon and rectum.

Knowledge of the normal anatomy of the genital tract

Knowledge: General Clinical

The pathophysiology of voiding dysfunction, including structural and neurological basis of lower urinary tract symptoms (LUTS) and potential pharmacologic targets for therapy.

The basic pathologies underlying hematuria, including benign disease and urologic cancer histopathology and staging.

The resident will understand the basics of diagnostic equipment used for understanding urologic disease.

The resident will become competent in evaluating and treating patients with common urologic problems including:

- lower urinary tract dysfunction and hematuria
- the urologic differential diagnosis of abdominal pain

- performance of an adequate abdominal, prostate and scrotal examination

The resident will understand the essentials of pre-operative management for urologic patients including:

- routine preoperative assessment of surgical patient with particular reference to patients with renal disease or dysfunction
- assessment of patients with various co-morbidities (cardiac, pulmonary, renal and metabolic)
- examination and management of a hemodynamically unstable or at-risk patient (septic due to urinary infection vs. hypovolemic, neurogenic, cardiogenic shock)

The resident will become competent in diagnosis and treatment of complications seen post-operatively in both the urologic patient and non-urologic patient

The principles and follow-up as well as prognosis for urologic surgical patients.

Knowledge: Specific Clinical Problems

Demonstrate knowledge in common abnormalities found in the urogenital tract, congenital or acquired, the acquisition and interpretation of data from radiologic studies.

Demonstrate competence in emergency urological management of:

- the patient with an acute renal colic
- the patient urinary tract infection in the setting of ureteric obstruction
- the child with acute scrotal pain
- the patient with urological trauma
 - including operative and non-operative approaches
- acute urinary retention, including gross hematuria with clot retention

Evaluation and diagnosis procedures and outpatient management of patients with hematuria (microscopic and gross)

Diagnosis and treatment of urinary infection including:

- acute cystitis and pyelonephritis
- recurrent cystitis
- complex urinary infections
- prostatitis - acute and chronic
- epididymo-orchitis

Evaluation of the male patient with infertility an understanding of the psycho-social aspects of male factor infertility

Diagnosis and management of patients with a common urological malignancies including the treatment options for the various stages of carcinoma of the prostate, bladder, testis and kidney

- an understanding of the multidisciplinary approaches to these disease processes including the palliative care of a patient with advanced stage metastatic carcinoma

Diagnosis and management of a patient with urinary obstruction (prostatic, bladder neck or ureteric)

Diagnosis and management options for a patient with urolithiasis (including acute renal colic and chronic renal calculi) including the rationale, performance, and complications of lithotripsy

Evaluation and diagnosis of common paediatric urological problems including hydrocele, cryptorchidism, ureteropelvic junction obstruction and vesicoureteric reflux

Evaluation and diagnosis of various forms of urinary incontinence

Diagnosis and management of various scrotal masses including hydrocele, epididymal cysts, orchitis, testis tumor, varicocele, testis torsion

Assess, diagnose and provide initial management of a neurogenic bladder following lower gastrointestinal or gynecologic surgery

Principles and practice of renal transplantation

Understand the psychological and emotional aspects of urological diseases including the emotional implications of a diagnosis of malignant disease, anaesthetic hazards in the elderly and in the management of acute confusional states in the elderly, medical/legal and ethical issues arising in urological patients with respect to transplantation, infertility and impotence evaluation, and the awareness of the concept of body image in surgical patients.

Knowledge: Technical

- urethral catheterization including urinary catheter care
 - includes manual irrigation for gross hematuria with clot retention
- urethral manipulation and dilatation of male urethral strictures
- urinalysis interpretation
- wound closure
- vasectomy and circumcision (if resident is so interested)
- basic principles of endoscopic examination of the urogenital tract
- basic principles of scrotal surgery
- assist with intra-abdominal urologic procedures

Communicator

- the resident is able to communicate with patients and their families in a professional and patient-centered manner
- the resident will adequately document patient care encounters in the chart and complete discharge summaries in a concise and timely fashion
- the resident will demonstrate respect for the impact of cultural differences and expectations in their patient care and communications

Collaborator

- demonstrate skill in presenting well-documented assessments and recommendations in written and/or verbal form in the handover setting, as well as in response to a request from another health care provider.
- the resident is to communicate with fellow core residents, attending staff, and emergency physicians in a collegial manner
- communicates with nursing staff and all paramedical staff in a courteous and professional manner
- demonstrate effective consultation services with respect to patient care, and education. These include rehabilitation medicine, physiotherapy, occupational therapy, and dietitians.
- recognize that complex patient problems require a multidisciplinary approach
- place appropriate value on the patient's perspective in shared decision-making settings

Leader

- selects medically appropriate investigative tools in a cost-effective, ethical and useful manner
- completes daily tasks in a efficient and timely fashion
- supervises junior housestaff appropriately in patient care
- understands and implements fundamentals of patient safety
- understands and implements fundamentals of quality improvement in the clinical setting

Health Advocate

- The resident should be able to provide guidance to patients as well as families with regards to early detection of urological conditions
- the resident will understand the role of

Scholar

- access and apply relevant information to clinical practice including new and current therapeutics options

- uses an evidence based medicine approach to solve problems encountered in the day to day care of patients (evidence-informed practice)
- attend and participate in the weekly educational rounds
- teaches junior housestaff and medical students in a constructive and respectful manner

Professional

- demonstrates honest and ethical behavior throughout the rotation
- interact with patients, families, nurses and other health care personnel in a professional manner with appropriate attitudes in dealing with patients with urological problems
- respect all opinions of health care workers as well as the patient and their family
- constantly evaluate her/his knowledge, skills and abilities, and recognize the limits of her/his professional competence
- understands the importance of the resident's own wellbeing in the delivery of excellent medical care