

**2009**

**EDITORIAL REVISION – JUNE 2012  
VERSION 1.1**

*This document applies to those who begin training on or after July 1<sup>st</sup>, 2009.*

## **DEFINITION**

Urology is that surgical branch of medicine concerned with the study, diagnosis, and treatment of abnormalities and diseases of the genito-urinary tract of the male and the urinary tract of the female in adults and children.

## **GOALS**

Upon completion of training, a resident is expected to be a competent specialist in Urology capable of assuming a consultant's role in the specialty. The resident must acquire a working knowledge of the theoretical basis of the specialty, including its foundations in the basic medical sciences and research. A Urology resident must understand the normal function and the pathological processes and diseases that affect the adrenal gland, the kidneys, ureters, bladder, urethra in the male and female, and the prostate and external genitalia of the male. This includes an understanding, appropriate to the practice of Urology, of normal development and embryology, biochemistry and pharmacology, physiology, anatomy, and gross and microscopic pathology of the genito-urinary tract.

Residents must acquire the requisite knowledge, skills, and attitudes for effective patient-centered care and service to a diverse population. In all aspects of a specialist's practice, the graduate must be able to address issues of gender, age, culture and ethnicity. All of this must be performed in an ethical and professional manner. Because patient care is a shared responsibility in the Canadian health care system, a close, integrated and collaborative relationship with primary care physicians is essential. There also needs to be a collaborative relationship with specialists in all fields of surgery, medicine, laboratory medicine, radiology, rehabilitation medicine and social work.

The professional characteristics to be demonstrated and developed include all of the CanMEDS competencies.

## **UROLOGY COMPETENCIES**

At the completion of training, the resident will have acquired the following competencies and will function effectively as a:

## Medical Expert

### **Definition:**

As *Medical Experts*, Urologists integrate all of the CanMEDS Roles, applying medical knowledge, clinical skills, and professional attitudes in their provision of patient-centered care. *Medical Expert* is the central physician Role in the CanMEDS framework.

### **Key and Enabling Competencies: Urologists are able to...**

#### **1. Function effectively as consultants, integrating all of the CanMEDS Roles to provide optimal, ethical and patient-centered medical care**

- 1.1. Perform a consultation, including the presentation of well-documented assessments and recommendations in written and/or verbal form in response to a request from another health care professional
  - 1.1.1. Perform a focused physical examination and urological history, including past and present medical history relevant to the urological care of the patient
  - 1.1.2. Formulate a differential and provisional diagnosis
  - 1.1.3. Order or perform, and interpret the required investigations
  - 1.1.4. Formulate a treatment plan for the urologic patient
  - 1.1.5. Communicate the consultation, both verbally and in written format, including a clear plan of action or recommendation
- 1.2. Identify and appropriately respond to relevant ethical issues arising in patient care
- 1.3. Demonstrate the ability to prioritize professional duties when faced with multiple patients and problems
- 1.4. Demonstrate compassionate and patient-centered care
- 1.5. Recognize and respond to the ethical dimensions in medical decision-making
- 1.6. Demonstrate medical expertise in situations other than patient care, such as providing expert legal testimony or advising governmental agencies

#### **2. Establish and maintain clinical knowledge, skills and attitudes appropriate to Urology**

- 2.1. Apply knowledge of the clinical, socio-behavioural, and fundamental biomedical sciences relevant to Urology
  - 2.1.1. Congenital and developmental abnormalities
    - 2.1.1.1. Kidney and ureter
      - 2.1.1.1.1. Cystic disease of the kidney
      - 2.1.1.1.2. Horseshoe kidney and other renal anomalies
      - 2.1.1.1.3. Duplication, retrocaval ureter and other ureteric anomalies

## OBJECTIVES OF TRAINING IN UROLOGY (2009)

- 2.1.1.2. Bladder and urethra
  - 2.1.1.2.1. Vesicoureteral reflux
  - 2.1.1.2.2. Posterior urethral valves
  - 2.1.1.2.3. Epispadias and exstrophy
  - 2.1.1.2.4. Hypospadias and chordee
  - 2.1.1.2.5. Other anomalies
- 2.1.1.3. External genitalia
  - 2.1.1.3.1. Disorders of sexual differentiation
  - 2.1.1.3.2. Undescended testis
  - 2.1.1.3.3. Scrotal and external genital anomalies
- 2.1.2. Obstructive disease of the upper urinary tract
  - 2.1.2.1. Hydronephrosis and obstructive uropathy
  - 2.1.2.2. Ureteropelvic junction obstruction
- 2.1.3. Obstructive disease of the lower urinary tract
  - 2.1.3.1. Bladder outflow obstruction
  - 2.1.3.2. Benign prostatic hypertrophy
  - 2.1.3.3. Urethral strictures
  - 2.1.3.4. Obstruction secondary to neurological disorders
- 2.1.4. Urinary calculus disease
  - 2.1.4.1. Renal and ureteral calculi
  - 2.1.4.2. Bladder and urethral calculi
- 2.1.5. Urinary fistulae
- 2.1.6. Urinary and genital infections
  - 2.1.6.1. Bacterial (complicated and uncomplicated) and non-bacterial cystitis and urethritis
  - 2.1.6.2. Pyelonephritis and other renal infections including xanthogranulomatous pyelonephritis
  - 2.1.6.3. Prostatitis including chronic pelvic pain syndrome
  - 2.1.6.4. Sexually transmitted infections
  - 2.1.6.5. Genito-urinary tuberculosis
  - 2.1.6.6. Genito-urinary parasitic disease
  - 2.1.6.7. Fungal urinary tract infections

## OBJECTIVES OF TRAINING IN UROLOGY (2009)

- 2.1.6.8. Other genital infections (including necrotizing fasciitis)
- 2.1.7. Trauma (including the genito-urinary aspects of multi-system trauma evaluation and management)
  - 2.1.7.1. Renal trauma
  - 2.1.7.2. Ureteral trauma
  - 2.1.7.3. Bladder trauma
  - 2.1.7.4. Urethral trauma
  - 2.1.7.5. External genital trauma
- 2.1.8. Renovascular hypertension
  - 2.1.8.1. Surgically correctable hypertension
- 2.1.9. Renal transplantation
  - 2.1.9.1. Recipient selection and organ donation
  - 2.1.9.2. Relevant transplantation immunology
  - 2.1.9.3. Principles of immunosuppression
  - 2.1.9.4. Management of surgical complications of renal transplantation
- 2.1.10. Andrology
  - 2.1.10.1. Male sexual function and dysfunction
  - 2.1.10.2. Fertility and male factor infertility
  - 2.1.10.3. Hypogonadism
- 2.1.11. Urological oncology

For all tumours (benign and malignant) of the genito-urinary tract, the resident MUST (a) be able to describe the etiology, prevention, natural history and pathology; (b) be able to diagnose the condition through appropriate use of investigative and diagnostic techniques; (c) know the staging and grading systems that are in common use; (d) know the principles of cancer management, including the role of surgery, radiotherapy, chemotherapy and immunotherapy; (e) be familiar with the role of percutaneous, angiographic and new techniques and their indications; and (f) understand the principles of cancer palliation

  - 2.1.11.1. Tumours of the kidney
    - 2.1.11.1.1. Renal epithelial tumours
    - 2.1.11.1.2. Wilms' tumour
    - 2.1.11.1.3. Urothelial carcinoma of renal pelvis and ureter

*OBJECTIVES OF TRAINING IN UROLOGY (2009)*

- 2.1.11.1.4. Angiomyolipoma
- 2.1.11.1.5. Other tumours – adult
- 2.1.11.1.6. Other tumours - pediatric
  
- 2.1.11.2. Tumours of the bladder
  - 2.1.11.2.1. Urothelial carcinoma
  - 2.1.11.2.2. Squamous cell carcinoma
  - 2.1.11.2.3. Other tumours
  
- 2.1.11.3. Cancer of the prostate
  - 2.1.11.3.1. Adenocarcinoma
  - 2.1.11.3.2. Other tumours
  
- 2.1.11.4. Tumours of the testis
  - 2.1.11.4.1. Germ cell (including seminoma and non-seminoma)
  - 2.1.11.4.2. Non-germ cell tumours
  
- 2.1.11.5. Cancer of the penis
  - 2.1.11.5.1. Squamous cell carcinoma
  
- 2.1.11.6. Cancer of the urethra
- 2.1.11.7. Tumours of the adrenal
  - 2.1.11.7.1. Pheochromocytoma
  - 2.1.11.7.2. Neuroblastoma
  - 2.1.11.7.3. Adrenal adenoma
  - 2.1.11.7.4. Adenocarcinoma
  - 2.1.11.7.5. Other tumours – adult
  - 2.1.11.7.6. Other tumours - pediatric
  
- 2.1.11.8. Metastatic cancers to genito-urinary tract
  
- 2.1.12. Voiding disorders including relevant neurourology
  - 2.1.12.1. Urinary incontinence
  - 2.1.12.2. Voiding dysfunction due to neurological disease
  - 2.1.12.3. Nocturnal enuresis
  - 2.1.12.4. Functional voiding disorders

## OBJECTIVES OF TRAINING IN UROLOGY (2009)

- 2.1.12.5. Interstitial cystitis
  - 2.1.13. Adrenal diseases
    - 2.1.13.1. Adrenal cysts, hyperplasia
    - 2.1.13.2. Adrenal hyperfunction and hypofunction and associated syndromes
  - 2.1.14. Systemic diseases and other processes affecting the urinary tract
    - 2.1.14.1. Urological manifestations of systemic diseases (including diabetes mellitus, sepsis, HIV/AIDS and other disorders of immunocompromised patients)
    - 2.1.14.2. The urinary tract in pregnancy (including normal physiologic and anatomic changes and management of urinary tract problems in the pregnant patient)
  - 2.1.15. Disorders of the male external genitalia
    - 2.1.15.1. Hydrocele, varicocele, spermatocele, cysts
    - 2.1.15.2. Torsion of the testis, cord and appendages
    - 2.1.15.3. Inguinal hernia
    - 2.1.15.4. All benign, premalignant and malignant dermatological lesions of the male external genitalia
  - 2.2. Demonstrate knowledge of the mechanism of action and physiological effects of therapeutic technologies relevant to Urology
    - 2.2.1. Laparoscopy
      - 2.2.1.1. Understand the principles of laparoscopy, the role of laparoscopy in benign and malignant diseases, its indications and contraindications, and recognition and treatment of its complications
    - 2.2.2. Electrosurgery
    - 2.2.3. Extracorporeal shock wave lithotripsy
    - 2.2.4. Lasers
    - 2.2.5. Transurethral prostatic hyperthermia / thermotherapy and other alternative modalities used in the management of patients with benign prostatic hyperplasia
    - 2.2.6. Botulinum toxin
    - 2.2.7. Neurostimulation
    - 2.2.8. Radiofrequency ablation
    - 2.2.9. Cryotherapy
  - 2.3. Describe the CanMEDS framework of competencies relevant to Urology
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- 2.4. Apply lifelong learning skills of the Scholar Role to implement a personal program to keep up-to-date, and enhance areas of professional competence
- 2.5. Contribute to the enhancement of quality care and patient safety in their practice, integrating the available best evidence and best practices

**3. Perform a complete and appropriate assessment of a patient**

- 3.1. Identify and explore issues to be addressed in a patient encounter effectively, including the patient's context and preferences
- 3.2. Elicit a history that is relevant, concise and accurate to context and preferences for the purposes of prevention and health promotion, diagnosis and/or management
- 3.3. Perform a focused physical examination that is relevant and accurate for the purposes of prevention and health promotion, diagnosis and/or management
- 3.4. Select medically appropriate investigative methods in a resource-effective and ethical manner
- 3.5. Demonstrate effective clinical problem solving and judgment to address patient problems, including interpreting available data and integrating information to generate differential diagnoses and management plans

**4. Use preventive and therapeutic interventions effectively**

- 4.1. Implement a management plan in collaboration with a patient and their family
- 4.2. Demonstrate appropriate and timely application of preventive and therapeutic interventions relevant to Urology
- 4.3. Ensure appropriate informed consent is obtained for therapies
- 4.4. Ensure patients receive appropriate end-of-life care

**5. Appropriately use and interpret diagnostic tests relevant to Urology**

- 5.1. Demonstrate effective, appropriate, and timely performance of diagnostic procedures relevant to their practice
  - 5.1.1. Urinalysis
    - 5.1.1.1. Routine urinalysis
    - 5.1.1.2. Urine culture techniques
    - 5.1.1.3. Urinary collections for metabolic studies
    - 5.1.1.4. Urine cytological studies
  - 5.1.2. Semen analysis
    - 5.1.2.1. Qualitative and quantitative analyses
  - 5.1.3. Prostatic fluid examination
    - 5.1.3.1. Microscopic examination

- 5.1.4. Biochemical serum studies
    - 5.1.4.1. Renal function tests
    - 5.1.4.2. Adrenal function tests
    - 5.1.4.3. Tumour markers
  
  - 5.1.5. Intravenous excretory urography
  - 5.1.6. Retrograde urethrography, cystography and pyelography
  - 5.1.7. Antegrade imaging of the kidneys and pelvic vessels
  - 5.1.8. Loopography
  - 5.1.9. Voiding cystourethrography
  - 5.1.10. Ultrasonography
    - 5.1.10.1. Kidney
    - 5.1.10.2. Bladder
    - 5.1.10.3. Prostate
    - 5.1.10.4. Scrotal contents
    - 5.1.10.5. Doppler studies of renal, gonadal and penile vessels
    - 5.1.10.6. Ultrasound-guided procedures (aspirations, biopsies, drainage)
  
  - 5.1.11. Radioisotope studies
    - 5.1.11.1. Renal scans (all types)
    - 5.1.11.2. Voiding cystograms
    - 5.1.11.3. Bone scans for staging of malignant disease
    - 5.1.11.4. Scans for localization of inflammatory lesions
    - 5.1.11.5. Scans for adrenal localization
  
  - 5.1.12. CT scanning
    - 5.1.12.1. Abdomen and pelvis
    - 5.1.12.2. CT guided procedures (aspirations, biopsies, drainage)
  
  - 5.1.13. MRI scanning of the urinary tract
  - 5.1.14. Angiography of the renal vasculature
  - 5.1.15. Urodynamic studies
    - 5.1.15.1. Cystometrogram
    - 5.1.15.2. Uroflowmetry
    - 5.1.15.3. Voiding pressure studies
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- 5.1.15.4. Pelvic floor electromyography
- 5.1.15.5. Videourodynamic studies
  
- 5.1.16. Phalldynamics
  - 5.1.16.1. Dynamic infusion cavernosometry and caversography (DICC)
  - 5.1.16.2. Duplex ultrasound scans
  - 5.1.16.3. Combined injection and stimulation test (CIS)
  
- 5.1.17. Diagnostic histopathology
  - 5.1.17.1. Malignant lesions of the kidney
    - 5.1.17.1.1. Renal carcinoma
    - 5.1.17.1.2. Wilms' tumour
  
  - 5.1.17.2. Benign lesions of the kidney
    - 5.1.17.2.1. Oncocytoma
    - 5.1.17.2.2. Angiomyolipoma
  
  - 5.1.17.3. Urothelial neoplasms
    - 5.1.17.3.1. Urothelial carcinoma of renal pelvis and ureter
    - 5.1.17.3.2. Bladder carcinomas
    - 5.1.17.3.3. Urethra carcinoma
  
  - 5.1.17.4. Prostatic neoplasms
    - 5.1.17.4.1. Prostatic adenocarcinoma
    - 5.1.17.4.2. Prostatic intraepithelial neoplasia
    - 5.1.17.4.3. Benign prostatic hyperplasia
  
  - 5.1.17.5. Testis tumours
    - 5.1.17.5.1. Germ cell tumours (seminoma and non-seminoma)
    - 5.1.17.5.2. Functional tumours of the testis (Leydig cell tumours)
    - 5.1.17.5.3. Sertoli cell tumours
  
  - 5.1.17.6. Inflammatory lesions of the kidneys
    - 5.1.17.6.1. Xanthogranulomatous pyelonephritis
    - 5.1.17.6.2. Tuberculosis
    - 5.1.17.6.3. Chronic pyelonephritis

5.1.17.7. Inflammatory lesions of the lower urinary tract

5.1.17.7.1. Interstitial cystitis

5.1.17.7.2. Cystitis cystica

5.1.17.7.3. Cystitis glandularis

5.1.17.7.4. Cystitis follicularis

5.1.17.7.5. Prostatitis

**6. Demonstrate proficient and appropriate use of procedural skills**

**6.1. Surgical Procedures List A**

The fully trained resident must be competent to individually perform the following procedures, in addition to being able to manage the patient prior to, during, and after the procedure.

***Endoscopic and Percutaneous Procedures***

6.1.1. Cystoscopy and urethroscopy, ureteric catheterization including ureteric stent insertion and removal, retrograde pyelography

6.1.2. Urethral dilatation and visual internal urethrotomy

6.1.3. Transurethral biopsy of bladder and urethra

6.1.4. Transurethral resection of prostate

6.1.5. Transurethral resection of bladder tumours

6.1.6. Transurethral resection/incision of ureterocele

6.1.7. Manipulation of bladder calculi including litholopaxy

6.1.8. Ureteroscopy, lithotripsy and basket extraction of ureteric calculi

6.1.9. Endoscopic injection for vesico-ureteric reflux

6.1.10. Suprapubic catheter insertion

6.1.11. Percutaneous renal surgery including nephrolithotomy with ultrasound/electrohydraulic/laser lithotripsy

***Open Surgical Procedures***

6.1.12. Circumcision

6.1.13. Suprapubic cystostomy

6.1.14. Urethral meatotomy, meatoplasty

6.1.15. Meatal repair for glanular hypospadias

6.1.16. Fulguration of venereal warts

6.1.17. Biopsy of penile lesions

6.1.18. Testicular biopsy

- 6.1.19. Vasectomy
- 6.1.20. Scrotal surgery - hydrocele, epididymal cyst, epididymectomy, simple orchidectomy
- 6.1.21. Cavernal shunting procedures for priapism
- 6.1.22. Varicocele repair
- 6.1.23. Pediatric indirect hernia repair
- 6.1.24. Orchidopexy for inguinal testis
- 6.1.25. Radical orchidectomy
- 6.1.26. Repair of testicular torsion
- 6.1.27. Procedures for correction of stress urinary incontinence
- 6.1.28. Uretero-neocystostomy
- 6.1.29. Repair of urinary fistulae - involving bladder, urethra, ureter, kidney
- 6.1.30. Urinary diversion procedures - ileal conduits
- 6.1.31. Radical cystectomy and anterior pelvic exenteration
- 6.1.32. Procedures for ureteral and bladder trauma repair
- 6.1.33. Pelvic lymphadenectomy
- 6.1.34. Pyeloplasty for ureteropelvic junction obstruction
- 6.1.35. Nephrectomy (simple and radical)
- 6.1.36. Partial nephrectomy for cancer
- 6.1.37. Nephroureterectomy
- 6.1.38. Uretero-ureterostomy

***Laparoscopic Procedures***

- 6.1.39. Laparoscopic nephrectomy (simple and radical)
- 6.1.40. Radical prostatectomy

**6.2. Surgical Procedures List B**

The fully trained resident will know how to do the following procedures, including indications, and peri-operative management. The resident may not have actually done one of these procedures independently during the residency training period.

***Endoscopic and Percutaneous Procedures***

- 6.2.1. Transrectal ultrasound guided biopsy of the prostate
- 6.2.2. Resection of posterior urethral valves
- 6.2.3. Endoscopic pyeloplasty (endopyelotomy)
- 6.2.4. Extra-corporeal shock wave lithotripsy
- 6.2.5. Percutaneous nephrostomy

**Open Procedures**

- 6.2.6. Renal biopsy
- 6.2.7. Nephrolithotomy and ureterolithotomy
- 6.2.8. Ureterolysis, ureteroplasty, uretero-pyelostomy
- 6.2.9. Cutaneous ureterostomy/pyelostomy
- 6.2.10. Vesicostomy
- 6.2.11. Procedures for renal trauma repair
- 6.2.12. Vasovasostomy
- 6.2.13. Perineal urethrostomy
- 6.2.14. Trans-uretero-ureterostomy
- 6.2.15. Inguinal lymphadenectomy for carcinoma penis
- 6.2.16. Procedures for correction of penile curvature and Peyronie's disease
- 6.2.17. Penectomy
- 6.2.18. Urethrectomy
- 6.2.19. Augmentation cystoplasty
- 6.2.20. Continent urinary reservoir
- 6.2.21. Drainage of perinephric, perivesical and retroperitoneal abscess
- 6.2.22. Cadaveric and live donor renal harvesting for transplantation
- 6.2.23. Adrenalectomy including surgery of pheochromocytoma
- 6.2.24. Insertion of testicular prosthesis
- 6.2.25. Insertion of penile prosthesis
- 6.2.26. Insertion of artificial urinary sphincter
- 6.2.27. Simple retropubic prostatectomy
- 6.2.28. Retroperitoneal lymph node dissection
- 6.2.29. Radical nephrectomy with vena cava thrombus below diaphragm
- 6.2.30. Correction of mid and distal shaft hypospadias

**Laparoscopic Procedures**

- 6.2.31. Laparoscopic orchiopexy/orchiectomy for abdominal testis
- 6.2.32. Adrenalectomy
- 6.2.33. Pyeloplasty

### 6.3. Surgical Procedures List C

The fully trained resident will be able to describe the following procedures, the indications for these procedures, and the perioperative complications that might be encountered.

#### ***Endoscopic and Percutaneous Procedures***

- 6.3.1. Transurethral excision of external sphincter

#### ***Open Procedures***

- 6.3.2. Correction of proximal hypospadias and epispadias
- 6.3.3. Surgical reconstruction for exstrophy
- 6.3.4. Transplant nephrectomy
- 6.3.5. Renal transplantation
- 6.3.6. Anatomic nephrolithotomy
- 6.3.7. Removal of vena caval and atrial tumour thrombus for carcinoma of the kidney
- 6.3.8. Urethral reconstruction for anterior urethral strictures and pelvic fracture distraction injuries
- 6.3.9. Epididymo-vasostomy with microscope
- 6.3.10. Post-chemotherapy retroperitoneal lymph node dissection

#### ***Laparoscopic Procedures***

- 6.3.11. Varicocelectomy
  - 6.3.12. Prostatectomy
  - 6.3.13. Live donor nephrectomy
- 6.4. Prepare a patient for surgery and seek appropriate consultation from other health care professionals if necessary
  - 6.5. Ensure appropriate informed consent is obtained for procedures
  - 6.6. Document and disseminate information related to procedures performed and their outcomes
  - 6.7. Ensure adequate follow-up is arranged for procedures performed

### **7. Seek appropriate consultation from other health professionals, recognizing the limits of their expertise**

- 7.1. Demonstrate insight into their own limitations of expertise
  - 7.2. Demonstrate effective, appropriate, and timely consultation of another health professional as needed for optimal patient care
  - 7.3. Arrange appropriate follow-up care services for a patient and their family
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## Communicator

### **Definition:**

As *Communicators*, Urologists effectively facilitate the doctor-patient relationship and the dynamic exchanges that occur before, during, and after the medical encounter.

### **Key and Enabling Competencies: Urologists are able to...**

#### **1. Develop rapport, trust, and ethical therapeutic relationships with patients and families**

- 1.1. Recognize that being a good communicator is a core clinical skill for Urologists, and that effective physician-patient communication can foster patient satisfaction, physician satisfaction, adherence and improved clinical outcomes
- 1.2. Establish positive therapeutic relationships with patients and their families that are characterized by understanding, trust, respect, honesty and empathy
- 1.3. Respect patient confidentiality, privacy and autonomy
- 1.4. Listen effectively
- 1.5. Demonstrate awareness of and responsiveness to nonverbal cues by being sensitive to non-verbalized fears, anxieties and needs for privacy
- 1.6. Facilitate a structured clinical encounter effectively

#### **2. Accurately elicit and synthesize relevant information and perspectives of patients and families, colleagues, and other professionals**

- 2.1. Gather information about a disease and about a patient's beliefs, concerns, expectations and illness experience
- 2.2. Seek out and synthesize relevant information from other sources, such as a patient's family, caregivers and other professionals

#### **3. Convey relevant information and explanations accurately to patients and families, colleagues and other professionals**

- 3.1. Deliver information to a patient and family, colleagues and other professionals in a humane manner and in such a way that it is understandable, encourages discussion and participation in decision-making
  - 3.1.1. Communicate bad news to patients and families in an empathic manner

#### **4. Develop a common understanding on issues, problems and plans with patients, families, and other professionals to develop a shared plan of care**

- 4.1. Identify and explore problems to be addressed from a patient encounter effectively, including the patient's context, responses, concerns, and preferences

- 4.2. Respect diversity and difference, including but not limited to the impact of gender, religion and cultural beliefs on decision-making
- 4.3. Encourage discussion, questions, and interaction in the encounter
- 4.4. Engage patients, families, and relevant health professionals in shared decision-making to develop a plan of care
- 4.5. Address challenging communication issues effectively, such as obtaining informed consent, delivering bad news, and addressing anger, confusion and misunderstanding
  - 4.5.1. Demonstrate awareness of their own feelings and biases and recognize any personal reactions which may be detrimental to the physician-patient relationship

**5. Convey effective oral and written information about a medical encounter**

- 5.1. Maintain clear, accurate, and appropriate records (e.g., written or electronic) of clinical encounters and plans
  - 5.1.1. Record accurately and succinctly data collected from patients, laboratory tests and radiological studies
  - 5.1.2. Communicate opinions clearly in the form of consultation letters, telephone calls to family physicians, other consultant specialists and allied health professionals
- 5.2. Present verbal reports of clinical encounters and plans
  - 5.2.1. Explain clearly and concisely:
    - 5.2.1.1. The diagnosis and management plans for urological problems in a way that motivates and facilitates patients' willing participation
    - 5.2.1.2. Management plans to other health care personnel in a way that ensures their effective participation
    - 5.2.1.3. Steps necessary for problem management when acting as a consultant for other physicians
- 5.3. Present medical information effectively to the public or media about a medical issue

**Collaborator**

***Definition:***

As *Collaborators*, Urologists effectively work within a health care team to achieve optimal patient care.

**Key and Enabling Competencies: Urologists are able to...**

**1. Participate effectively and appropriately in an interprofessional health care team**

- 1.1. Describe the Urologist's roles and responsibilities to other professionals
- 1.2. Describe the roles and responsibilities of other professionals within the urological health care team including but not limited to nurses, occupational and physiotherapists, and imaging technologists
- 1.3. Recognize and respect the diversity of roles, responsibilities and competences of other professionals in relation to their own
- 1.4. Work with others to assess, plan, provide and integrate care for individual patients (or groups of patients)
- 1.5. Work with others to assess, plan, provide and review other tasks, such as research problems, educational work, program review or administrative responsibilities
- 1.6. Participate in interprofessional urological team meetings
- 1.7. Enter into interdependent relationships with other professions for the provision of quality care
- 1.8. Describe the principles of team dynamics
- 1.9. Respect team ethics, including confidentiality, resource allocation and professionalism
- 1.10. Demonstrate leadership in a health care team, as appropriate

**2. Work with other health professionals effectively to prevent, negotiate, and resolve interprofessional conflict**

- 2.1. Demonstrate a respectful attitude towards other colleagues and members of an interprofessional team
- 2.2. Work with other professionals to prevent conflicts
- 2.3. Employ collaborative negotiation to resolve conflicts
- 2.4. Respect differences and address misunderstandings and limitations in other professionals
- 2.5. Recognize one's own differences, misunderstanding and limitations that may contribute to interprofessional tension
- 2.6. Reflect on interprofessional team function

**Manager**

**Definition:**

As *Managers*, Urologists are integral participants in health care organizations, organizing sustainable practices, making decisions about allocating resources, and contributing to the

effectiveness of the health care system.

**Key and Enabling Competencies: Urologists are able to...**

**1. Participate in activities that contribute to the effectiveness of their health care organizations and systems**

- 1.1. Work collaboratively with others in their organizations
- 1.2. Participate in systemic quality process evaluation and improvement, such as patient safety initiatives
- 1.3. Describe the structure and function of the health care system as it relates to Urology, including the roles of Urologists
- 1.4. Describe principles of health care financing, including physician remuneration, budgeting and organizational funding

**2. Manage their practice and career effectively**

- 2.1. Set priorities and manage time to balance patient care, practice requirements, outside activities and personal life
- 2.2. Manage a practice including finances and human resources
  - 2.2.1. Demonstrate knowledge of issues pertaining to running a private office including staffing, billing and maintaining patient records
- 2.3. Implement processes to ensure personal practice improvement
- 2.4. Employ information technology appropriately for patient care

**3. Allocate finite health care resources appropriately**

- 3.1. Recognize the importance of just allocation of health care resources, balancing effectiveness, efficiency and access with optimal patient care
- 3.2. Apply evidence and management processes for effective cost-appropriate care
  - 3.2.1. Access appropriate urological diagnostic and therapeutic technology in a timely and efficient manner to benefit their patients
- 3.3. Organize a priority list for patients waiting surgery

**4. Serve in administration and leadership roles**

- 4.1. Chair or participate effectively in committees and meetings
- 4.2. Lead or implement change in health care
- 4.3. Plan relevant elements of health care delivery (e.g., work schedules)

## Health Advocate

### **Definition:**

As *Health Advocates*, Urologists responsibly use their expertise and influence to advance the health and well-being of individual patients, communities, and populations.

### **Key and Enabling Competencies: Urologists are able to...**

#### **1. Respond to individual patient health needs and issues as part of patient care**

- 1.1. Identify the health needs of an individual Urology patient
- 1.2. Identify opportunities for advocacy, health promotion and disease prevention with individuals to whom they provide care
  - 1.2.1. Take advantage of opportunities to discuss lifestyle changes that impact urological health

#### **2. Respond to the health needs of the communities that they serve**

- 2.1. Describe the practice communities that they serve
- 2.2. Identify opportunities for advocacy, health promotion and disease prevention in the communities that they serve, and respond appropriately
  - 2.2.1. Demonstrate understanding of the role of community based patient support groups
- 2.3. Appreciate the possibility of competing interests between the communities served and other populations

#### **3. Identify the determinants of health for the populations that they serve**

- 3.1. Identify the determinants of health of the populations, including barriers to access to care and resources
- 3.2. Identify vulnerable or marginalized populations within those served and respond appropriately

#### **4. Promote the health of individual patients, communities, and populations**

- 4.1. Describe an approach to implementing a change in a determinant of health of the populations they serve
- 4.2. Describe how public policy impacts on the health of the populations served
- 4.3. Identify points of influence in the health care system and its structure
- 4.4. Describe the ethical and professional issues inherent in health advocacy, including altruism, social justice, autonomy, integrity and idealism
- 4.5. Appreciate the possibility of conflict inherent in their role as a health advocate for a patient or community with that of manager or gatekeeper

- 4.6. Describe the role of the medical profession in advocating collectively for health and patient safety
  - 4.6.1. Understand the role and function of the Canadian Urological Association and other provincial and international urological societies

## Scholar

### **Definition:**

As *Scholars*, Urologists demonstrate a lifelong commitment to reflective learning, as well as the creation, dissemination, application and translation of medical knowledge.

### **Key and Enabling Competencies: Urologists are able to...**

#### **1. Maintain and enhance professional activities through ongoing learning**

- 1.1. Describe the principles of maintenance of competence
  - 1.1.1. Maintain an inquisitive attitude
  - 1.1.2. Describe the time commitment required for ongoing self study for the maintenance of competence
- 1.2. Describe the principles and strategies for implementing a personal knowledge management system
- 1.3. Recognize and reflect on learning issues in practice
- 1.4. Conduct a personal practice audit
- 1.5. Pose an appropriate learning question
- 1.6. Access and interpret the relevant evidence
- 1.7. Integrate new learning into practice
- 1.8. Evaluate the impact of any change in practice
- 1.9. Document the learning process
- 1.10. Demonstrate continuing evaluation of their own capabilities and limitations

#### **2. Critically evaluate medical information and its sources, and apply this appropriately to practice decisions**

- 2.1. Describe the principles of critical appraisal
- 2.2. Critically appraise retrieved evidence in order to address a clinical question
- 2.3. Integrate critical appraisal conclusions into clinical care

**3. Facilitate the learning of patients, families, students, residents, other health professionals, the public and others**

- 3.1. Describe principles of learning relevant to medical education
- 3.2. Identify collaboratively the learning needs and desired learning outcomes of others
- 3.3. Select effective teaching strategies and content to facilitate others' learning
- 3.4. Demonstrate an effective lecture or presentation
- 3.5. Assess and reflect on a teaching encounter
- 3.6. Provide effective feedback
- 3.7. Describe the principles of ethics with respect to teaching

**4. Contribute to the development, dissemination, and translation of new knowledge and practices**

- 4.1. Describe the principles of research and scholarly inquiry
- 4.2. Describe the principles of research ethics
  - 4.2.1. Demonstrate an understanding of the ethics of animal and human experimentation
  - 4.2.2. Demonstrate an ability to incorporate gender, cultural and ethnic perspectives in research methodology, data presentation and analysis
- 4.3. Pose a scholarly question
  - 4.3.1. Formulate a scientific research study to answer a clinical question
- 4.4. Conduct a systematic search for evidence
  - 4.4.1. Demonstrate the use of databases for literature searches and reviews
- 4.5. Select and apply appropriate methods to address the question
  - 4.5.1. Describe basic statistical methods used in clinical trials
- 4.6. Disseminate the findings of a study

**Professional**

***Definition:***

As *Professionals*, Urologists are committed to the health and well-being of individuals and society through ethical practice, profession-led regulation, and high personal standards of behaviour.

**Key and Enabling Competencies: Urologists are able to...**

**1. Demonstrate a commitment to their patients, profession, and society through ethical practice**

- 1.1. Exhibit appropriate professional behaviors in practice, including honesty, integrity, commitment, compassion, respect and altruism
  - 1.1.1. Demonstrate personal responsibility to patients by availability and confidentiality
- 1.2. Demonstrate a commitment to delivering the highest quality care and maintenance of competence
  - 1.2.1. Demonstrate adherence to the best available practice, including referral to other qualified practitioners when appropriate
  - 1.2.2. Demonstrate meticulous accuracy in reporting clinical and scientific information
- 1.3. Recognize and appropriately respond to ethical issues encountered in practice
- 1.4. Manage conflicts of interest
- 1.5. Recognize the principles and limits of patient confidentiality as defined by professional practice standards and the law
- 1.6. Maintain appropriate relations with patients

**2. Demonstrate a commitment to their patients, profession and society through participation in profession-led regulation**

- 2.1. Participate in Canadian and international professional organizations
- 2.2. Demonstrate knowledge and an understanding of the professional, legal and ethical codes of practice
  - 2.2.1. Demonstrate knowledge of the ethical problems of human organ procurement for the purposes of transplantation
  - 2.2.2. Demonstrate a working knowledge of provincial and federal laws and regulations related to the practice of medicine in general and Urology in particular
  - 2.2.3. Demonstrate an understanding and appreciation for patients' legal rights in matters related to informed consent, delegated consent and informed decision making
- 2.3. Fulfill the regulatory and legal obligations required of current practice
- 2.4. Demonstrate accountability to professional regulatory bodies
- 2.5. Recognize and respond to others' unprofessional behaviours in practice
  - 2.5.1. Demonstrate an understanding of medical protective procedures and the role of the Canadian Medical Protective Association in areas of patient-physician and hospital-physician dispute

2.6. Participate in peer review

**3. Demonstrate a commitment to physician health and sustainable practice**

3.1. Balance personal and professional priorities to ensure personal health and a sustainable practice

3.2. Strive to heighten personal and professional awareness and insight

3.3. Recognize other professionals in need and respond appropriately

3.4. Identify a colleague or faculty member with whom they may discuss personal and professional goals, conflicts and stresses

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