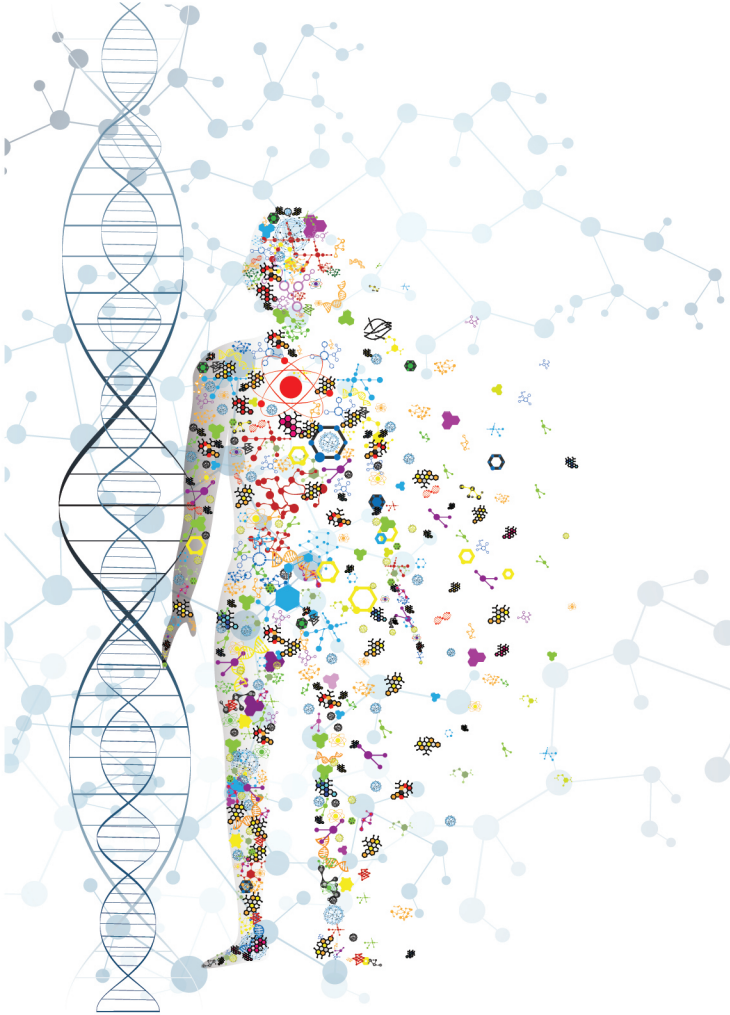
PEDIATRIC UROLOGY
FELLOWSHIP

SUBSPECIALTIES PROGRAMS



2016

SAUDI FELLOWSHIP PEDIATRIC UROLOGY CURRICULUM


بسم الله الرحمن الرحيم

الهيئة السعودية للتخصصات الصحية
Saudi Commission for Health Specialties

SAUDI FELLOWSHIP

PEDIATRIC UROLOGY CURRICULUM

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INTRODUCTION

Pediatric urology is a branch of urology concerned with the study, diagnosis, and treatment of genito-urinary tract abnormalities and diseases in male and female starting from the perinatal period till the adulthood.

The Saudi Pediatric Urology Fellowship Training Program is a structured training program, which strives to impart trainees with core knowledge, as well as current clinical information and skills in the investigation and holistic management of pediatric urological diseases. The program also stresses ethical and moral aspects in the practice of medicine as well as quality assurance and cost effectiveness. It also incorporates the new CanMEDS roles, which will be the standard for all the programs accredited by the Saudi Commission for Health Specialties (SCFHS).

The main goal of the Pediatric Urology Fellowship Training Program is to graduate a well-trained and qualified pediatric urologist, who will be able to look after their pediatric urology patients independently. The program is carried out in well-equipped accredited centers to allow trainees to develop appropriate competence in the period suggested. The program is under the auspices of the Saudi Commission for Health Specialties (SCFHS) rules and regulations.d

MINIMUM TRAINING REQUIREMENTS

The total duration is two years of approved fellowship training in pediatric urology. This period must include:

1) Two (2) years of fellowship training F1 + F2 of pure pediatric urology training that meets the requirements of the Saudi Commission for Health Specialties (SCFHS) curriculum. This period must be approved by the pediatric urology program director. This period of postgraduate training must include a minimum of six months in at least four accredited training centers for pediatric urology training by SCFHS.
2) Exposure to most of the following pediatric urology domains while in rotations:
   - Pediatric Genitourinary Trauma
   - Pediatric Endourology/Laparoscopy/Robotic
   - Pediatric Uro-oncology
   - Pediatric Urology Reconstruction
   - Pediatric Renal Transplantation
   - Pediatric Neuro-urology
   - Perinatal Urology
3) A maximum of eight (8) weeks' vacation; not more than four (4) weeks per training year and not more than two (2) weeks per six-month rotation

NOTES

Saudi Commission for Health Specialties (SCFHS) Certification in Pediatric Urology requires the successful completion of the SCFHS residency urology training or equivalent residency training program accredited by the SCFHS.

The two-year program outlined above is to be regarded as the minimum training requirement. Additional training may be required or recommended by the program director to ensure that clinical competence has been achieved.

Training must incorporate the principle of graded increasing responsibility. The fellow (F1+F2) is defined as the 48-month period in which the fellow is regularly entrusted with the responsibility for pre-operative, operative, and post-operative care, including the difficult and challenging problems in pediatric urology. The fellow will be in charge of all pediatric urological units or divisions during his/her rotations: no other fellow shall impede direct communication between the fellow and the attending staff pediatric urologist.

OBJECTIVES OF TRAINING

DEFINITION

Pediatric urology is a branch of urology concerned with the study, diagnosis, and treatment of genito-urinary tract abnormalities and diseases of both male and female patients stating from the perinatal period until adulthood.

The Saudi Pediatric Urology Fellowship Training Program is a structured training program, which strives to impart trainees with core knowledge, as well as updated clinical information and skills for investigating and holistic managing urological diseases. The program also stresses ethical and moral aspects in the practice of medicine as well as quality assurance and cost effectiveness. It also incorporates the new CanMEDS roles, which will be the standard for all the programs accredited by the Saudi Commission for Health Specialties (SCFHS).

GOALS

The main goal of the Pediatric Urology Fellowship Training Program is to graduate a well-trained and qualified pediatric urologist, who will be able to look after pediatric urology patients independently. The program is carried out in well-equipped accredited centers to allow trainees to develop appropriate competence in the period suggested. The program is under the auspices of the SCFHS' rules and regulations.

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

Fellows must acquire the requisite knowledge, skills, and attitudes for effective pediatric urology 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, religion, and ethnicity to the pediatric urology patients, their families, and their care givers. All of this must be performed in an ethical and professional manner. 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.

PEDIATRIC UROLOGY COMPETENCIES (F1 & F2)

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

1) Medical expert
2) Communicator
3) Collaborator
4) Leader
5) Health advocate
6) Scholar
7) Professional

Medical Expert

Definition:
As medical experts, pediatric urologists integrate all CanMEDS roles, applying medical knowledge, clinical skills, and professional attitudes in their provision of pediatric urology patient-centered care. The medical expert is the central physician role in the CanMEDS framework.

Key and enabling competencies
Fellows in the F1 and F2 levels must be able to:

1) **Function effectively as a pediatric urology fellow with increasing levels of responsibility according to their year of training. This must integrate all of the CanMEDS roles to provide optimal, ethical, and pediatric urology patient-centered medical care**
   - 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
     - Perform a focused physical examination and urological history, including past and present medical history relevant to the urological care of the pediatric urology patient
     - Formulate a differential and provisional diagnosis
     - Order or perform, and then interpret the required investigations
     - Formulate a treatment plan for the pediatric urology patient
     - Communicate the consultation, both verbally and in written format, including a clear plan of action or recommendations
   - Identify and appropriately respond to relevant ethical issues arising in pediatric urology patient care
   - Demonstrate the ability to prioritize professional duties when faced with multiple pediatric urology patients and problems
   - Demonstrate compassionate and pediatric urology patient-centered care, which includes their families and care givers
   - Recognize and respond to the ethical dimensions in medical decision-making
   - Demonstrate medical expertise in situations outside pediatric urology patient care, such as providing expert legal testimony or advising governmental agencies

2) **Establish and maintain clinical knowledge, skills, and attitudes appropriate Pediatric**

- Apply knowledge of the clinical, socio-behavioral, and fundamental biomedical sciences relevant to pediatric urology in the following conditions
  - Congenital and developmental abnormalities
    - Kidney and ureter
      - Cystic disease of the kidney
      - Horseshoe kidney and other renal anomalies
      - Duplication, retrocaval ureter, and other ureteric anomalies
    - Bladder and urethra
      - Vesicoureteral reflux
      - Posterior urethral valves
      - Epispadias, exstrophy, and cloacal
      - Hypospadias and curvature
      - Other anomalies
    - External genitalia
      - Disorders of sexual differentiation
      - Undescended testis
      - Scrotal and external genital anomalies
  - Obstructive disease of the upper urinary tract
    - Hydronephrosis and obstructive uropathy
    - Ureteropelvic junction obstruction
  - Obstructive disease of the lower urinary tract
    - Bladder outflow obstruction
    - Ureterovesical junction obstruction
    - Urethral strictures
    - Obstruction secondary to neurological disorders
  - Urinary calculus disease
    - Renal and ureteral calculi
    - Bladder and urethral calculi
  - Urinary fistulae
  - Urinary and genital infections
    - Bacterial (complicated and uncomplicated) and non-bacterial cystitis and urethritis
    - Pyelonephritis and other renal infections including xanthogranulomatous pyelonephritis
    - Other genital infections (including necrotizing fasciitis)
  - Trauma (including the genito-urinary aspects of multi-system trauma evaluation and management)
    - Renal trauma
    - Ureteral trauma
    - Bladder trauma
    - Urethral trauma
    - External genital trauma
  - Pediatric renal transplantation
    - Recipient selection and organ donation
    - Relevant transplantation immunology
    - Principles of immunosuppression
    - Management of surgical complications of pediatric renal transplantation
  - Pediatric urological oncology. For all tumors (benign and malignant) of the genito-urinary tract, the fellow MUST be able to:

- Describe the etiology, prevention, natural history, role of screening, and pathology
- Diagnose the condition through appropriate use of investigative and diagnostic techniques
- Apply commonly used staging and grading systems
- Describe the principles of cancer management, including the role of surgery, radiotherapy, chemotherapy, and immunotherapy
- Be familiar with the role of percutaneous, angiographic, and new techniques and their indications
- Describe the principles of cancer palliation
- The following tumors must be covered:
  - Tumors of the kidney
    - Wilms' tumor
    - Angiomyolipoma
  - Tumors of the bladder
  - Tumors of the testis
    - Germ cell (including seminoma and non-seminoma)
    - Non-germ cell tumors
  - Tumors of the adrenal
    - Pheochromocytoma
    - Neuroblastoma
  - Metastatic cancers to genito-urinary tract

- Voiding disorders including relevant neurourology
  - Urinary incontinence
  - Voiding dysfunction due to neurological disease
  - Nocturnal enuresis
  - Functional voiding disorders
- Adrenal diseases
  - Hyperplasia
  - Adrenal hyperfunction, hypofunction, and associated syndromes
- Systemic diseases and other processes affecting the urinary tract
- Disorders of the male external genitalia
  - Hydrocele, varicocele, spermatocele, cysts
  - Torsion of the testis, cord, and appendages
  - Inguinal hernia

- Demonstrate knowledge of the mechanism of action and physiological effects of therapeutic technologies relevant to pediatric urology
  - Laparoscopy
    - Understand the principles of laparoscopy in the pediatric age group, the role of laparoscopy in benign and malignant diseases, its indications and contraindications, and the recognition and treatment of its complications
  - Electrosurgery
  - Extracorporeal shock wave lithotripsy
  - Lasers
  - Botulinum toxin
  - Neurostimulation

- Describe the CanMEDS framework of competencies relevant to pediatric urology

- Apply lifelong learning skills of the scholar role to implement a personal program to keep up-to-date, and enhance professional competence
- Contribute to the enhancement of quality care and pediatric urology patient safety in their practice, integrating the available best evidence, and best practices

3) **Perform a complete and appropriate assessment of a patient**
   - Identify and explore issues to be addressed in a pediatric urology patient and their care giver encounter effectively, including the pediatric urology patients' and their care givers' context and preferences
   - Elicit a history that is relevant, concise, and accurate to the context and preferences for the purposes of prevention and health promotion, diagnosis and/or management
   - Perform a focused physical examination that is relevant and accurate for the purposes of prevention and health promotion, diagnosis and/or management
   - Select medically appropriate investigative methods in a resource-effective and ethical manner
   - Demonstrate effective clinical problem solving skills and judgment to address pediatric urology patients and their caregivers' problems, including interpreting available data and integrating information to generate differential diagnoses and management plans

4) **Use preventive and therapeutic interventions effectively**
   - Implement a management plan in collaboration with pediatric urology patients and their families
   - Demonstrate appropriate and timely application of preventive and therapeutic interventions relevant to pediatric urology
   - Ensure appropriate informed consent is obtained for therapies from the pediatric urology patient care giver

5) **Appropriately use and interpret diagnostic tests relevant to pediatric urology**
   - Demonstrate effective, appropriate, and timely performance of diagnostic procedures relevant to their practice
     - Urinalysis
       - Routine urinalysis
       - Urine culture techniques
       - Urinary collections for metabolic studies
       - Urine cytological studies
       - Microscopic examination
     - Biochemical serum studies
       - Renal function tests
       - Adrenal function tests
       - Tumor markers
     - Intravenous excretory urography
     - Retrograde urethrography, cystography, and pyelography
     - Antegrade imaging of the kidneys and pelvic vessels
     - Loopography
     - Voiding cystourethrography
     - Ultrasonography
       - Kidney
       - Bladder
       - Scrotal contents
       - Doppler studies of renal, gonadal, and penile vessels

- Ultrasound-guided procedures (aspirations, biopsies, drainage)
- Radioisotope studies
  - Renal scans (all types)
  - Nuclear cystograms
  - Bone scans for staging of malignant disease
- CT scanning
  - Abdomen and pelvis
  - CT guided procedures (aspirations, biopsies, drainage)
- MRI scanning of the urinary tract
- Angiography of the renal vasculature
- Urodynamic studies
  - Cystometrogram
  - Uroflowmetry
  - Voiding pressure studies
  - Pelvic floor electromyography
  - Videourodynamic studies
- Diagnostic histopathology
  - Malignant lesions of the kidney
    - Wilms' tumor
  - Benign lesions of the kidney
    - Angiomyolipoma
  - Testis tumors
    - Germ cell tumors (seminoma and non-seminoma)
    - Functional tumors of the testis (Leydig cell tumors)
    - Sertoli cell tumors
  - Inflammatory lesions of the kidneys
    - Chronic pyelonephritis

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

- Surgical procedures list A

  - Training fellows in the F1 and F2 levels must perform the following procedures as the primary surgeon and only under the direct and immediate supervision of the attending pediatric urologist; in addition, they must be able to manage the pediatric urology patient prior to, during, and after the procedure.

Endoscopic and Percutaneous Procedures
Cystoscopy and urethroscopy, ureteric catheterization including ureteric stent insertion and removal, retrograde pyelography
Transurethral incision/ ablation of posterior urethral valve
Transurethral resection of bladder tumors
Transurethral resection/incision of ureterocele
Manipulation of bladder calculi including litholopaxy
Ureteroscopy, lithotripsy, and basket extraction of ureteric calculi
Endoscopic injection for vesico-ureteric reflux

Suprapubic catheter insertion
Transurethral intradetrosal Botox injection
Extra-corporeal shock wave lithotripsy
Open Procedures
Circumcision, correction of penile web – torque & ventral curvature
Vesicostomy
Urethral meatotomy, meatoplasty
Repair for distal hypospadias
Staged repair for proximal hypospadias with/without grafting
Scrotal surgery - hydrocele, epididymal cyst, epididymectomy, simple orchidectomy
Varicocele repair
Orchidopexy for inguinal testis
Radical orchidectomy
Repair of testicular torsion
Pyeloplasty for ureteropelvic junction obstruction
Nephrectomy (simple and radical)
Nephroureterectomy
Procedures for correction of penile curvature
Augmentation cystoplasty
Continent urinary reservoir
Ureteroneocystostomy
Correction of proximal hypospadias and epispadias
Surgical reconstruction for exstrophy
Urogenital mobilization; feminizing genitoplasty
Laparoscopic Procedures
Laparoscopic orchiopexy/orchiectomy for abdominal testis

- Surgical procedures list B
  - Training fellows in the F1 & F2 levels must know how to complete and be able to describe the following procedures, including the indications and peri-operative management. Fellows may not actually complete these procedures independently during the residency-training period, but if opportunity arises, they should assist in the operation.

Endoscopic and Percutaneous Procedures
Endoscopic pyeloplasty (endopyelotomy)
Open Procedures
Renal biopsy
Nephrolithotomy and ureterolithotomy
Uretero-pyelostomy
Cutaneous ureterostomy/pyelostomy
Procedures for renal trauma repair
Perineal urethrostomy
Trans-uretero-ureterostomy
Adrenalectomy including surgery of pheochromocytoma
Insertion of testicular prosthesis
Testicular biopsy
Pediatric indirect hernia repair
Repair of urinary fistulae - involving bladder, urethra, ureter, kidney
Urinary diversion procedures - ileal conduits
Procedures for ureteral and bladder trauma repair
Partial nephrectomy
Uretero-ureterostomy
Urethral reconstruction for anterior urethral strictures and pelvic fracture distraction injuries
Retroperitoneal lymph node dissection
Laparoscopic Procedures
Pyeloplasty
Nephrectomy (simple)
Varicoceletomy

- Prepare a pediatric urology patient for surgery and if necessary, seek appropriate consultation from other health care professionals
- Ensure appropriate informed consent is obtained for scheduled procedures
- Document and disseminate information related to the performed procedures and their outcomes
- Ensure adequate follow-up is arranged for the performed procedures

7) **Seek appropriate consultation from other health professionals, and recognize the limits of their expertise**

- Demonstrate insight into their own limitations of expertise
- Demonstrate effective, appropriate, and timely consultation of another health professional as needed for optimal pediatric urology patient care
- Arrange appropriate follow-up care services for a pediatric urology patient and their family

Communicator

Definition
As *communicators*, pediatric urologists effectively facilitate the doctor-pediatric urology patient relationship and the dynamic exchanges that occur before, during, and after the medical encounter.

Key and enabling competencies
Pediatric urologists will be able to:

1) **Develop rapport, trust, and ethical therapeutic relationships with pediatric urology patients and families**

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

2) **Accurately elicit and synthesize relevant information and perspectives of pediatric urology patients, families, colleagues, and other professionals**

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

3) **Convey relevant information and explanations accurately to pediatric urology patients and families, colleagues, and other professionals**

- Deliver information to pediatric urology patients 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
    - Communicate bad news to pediatric urology patients and families in an empathic manner

4) **Develop a common understanding on issues, problems, and plans with pediatric urology patients, families, and other professionals to develop a shared care plan**

- Identify and explore problems to be addressed from a patient encounter effectively, including the patient's context, responses, concerns, and preferences
- Respect diversity and difference, including but not limited to the impact of gender, religion, and cultural beliefs on decision-making
- Encourage discussion, questions, and interaction in the encounter
- Engage pediatric urology patients, families, and relevant health professionals in shared decision-making to develop a plan of care

- Address challenging communication issues effectively, such as obtaining informed consent, delivering bad news, and addressing anger, confusion, and misunderstanding
    - 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**

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

Collaborator

Definition
As collaborators, pediatric urologists effectively work within a health care team to achieve optimal patient care.

Key and enabling competencies
Pediatric urologists will be able to:

1) **Effectively and appropriately participate in an interprofessional health care team**
    - Describe the pediatric urologist's roles and responsibilities to other professionals
    - Describe the roles and responsibilities of other professionals within the pediatric urological health care team including but not limited to nurses, occupational and physiotherapists, and imaging technologists
    - Recognize and respect the diversity of roles, responsibilities, and competences of other professionals in relation to their own
    - Work with others to assess, plan, provide, and integrate care for individual pediatric urology patients (or groups of pediatric urology patients)
    - Work with others to assess, plan, provide, and review other tasks, such as research problems, educational work, program review, or administrative responsibilities
    - Participate in interprofessional pediatric urological team meetings
    - Enter into interdependent relationships with other professions to provide quality care
    - Describe the principles of team dynamics
    - Respect team ethics, including confidentiality, resource allocation, and professionalism
    - Demonstrate progressive leadership in a health care team, as appropriate

2) **Work with other health professionals effectively to prevent, negotiate, and resolve interprofessional conflict**
   - Demonstrate a respectful attitude towards other colleagues and members of an interprofessional team
   - Work with other professionals to prevent conflicts
   - Employ collaborative negotiations to resolve conflicts
   - Respect differences and address misunderstandings and limitations in other professionals
   - Recognize one's own differences, misunderstandings, and limitations that may contribute to interprofessional tension
   - Reflect on interprofessional team function

Leader

Definition
As *Leaders*, pediatric urologists are integral participants in health care organizations as they organize sustainable practices, make decisions about resource allocation, and contribute to the health care system's effectiveness.

Key and enabling competencies
Pediatric urologists will be able to:

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

   - Work collaboratively with others in their organizations
   - Participate in systemic quality process evaluation and improvement, such as patient safety initiatives
   - Describe the structure and function of the health care system as it relates to pediatric urology, including pediatric urologists' roles
   - Describe the principles of health care financing, including physician remuneration, budgeting, and organizational funding

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

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

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

- Recognize the importance of justly allocating health care resources, as well as balancing effectiveness, efficiency, and access with optimal patient care
- Apply evidence and management processes for effective cost-appropriate care
  - Access appropriate urological diagnostic and therapeutic technology in a timely and efficient manner to benefit their pediatric urology patients
- Organize a priority list for pediatric urology patients awaiting surgery

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

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

Health Advocate

Definition
As *health advocates*, pediatric urologists responsibly use their expertise and influence to advance the health and well-being of individual pediatric urology patients, communities, and populations.

Key and enabling competencies
Pediatric urologists will be able to:

1) **Respond to individual pediatric urology patient health needs and issues as part of pediatric urology patient care**

- Identify the health needs of an individual pediatric urology patient
- Identify opportunities for advocacy, health promotion, and disease prevention with individuals to whom they provide care
  - Take advantage of opportunities to discuss lifestyle changes that can influence urological health

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

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

3) **Identify health determinants for the populations that they serve**

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

4) **Promote the health of individual pediatric urology patients, communities, and populations**

- Describe an approach to implementing changes in a health determinant to the populations they serve such as screening/early detection of certain disease
- Describe how public policy impacts the health of the populations served
- Identify points of influence in the health care system and its structure
- Describe the ethical and professional issues inherent in health advocacy, including altruism, social justice, autonomy, integrity, and idealism
- Appreciate the possibility of conflict inherent in their role as a health advocate for a patient or community with that of Leader or gatekeeper
- Describe the role of the medical profession in advocating collectively for health and patient safety
    - Understand the role and function of the Saudi Urological Association (SUA) and other provincial and international urological societies

Scholar

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

Key and enabling competencies
Pediatric urologists will be able to:

1) **Maintain and enhance professional activities through ongoing learning**

- Describe the principles of maintaining competence
    - Maintain an inquisitive attitude
    - Describe the time commitment required for ongoing self-study for maintaining competence
- Describe the principles and strategies for implementing a personal knowledge management system
- Recognize and reflect on learning issues in practice
- Conduct a personal practice audit
- Pose an appropriate learning question
- Access and interpret the relevant evidence
- Integrate new learning into practice
- Evaluate the impact of any changes in practice
- Document the learning process
    - Surgical logs through electronic logbook
- Demonstrate continuous evaluation of their own capabilities and limitations

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

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

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

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

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

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

5) **Complete at least one research project under the mentorship of an attending pediatric urologist or other faculty supervisor, which should be at least presented in either a national or international scientific event or be published in peer-review journal.**

Professional

Definition
As professionals, pediatric urologists are committed to the health and well-being of individuals and society through ethical practice, profession-led regulation, and high standards of personal behavior.

Key and enabling competencies
Pediatric urologists will be able to:

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

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

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

- Participate in Saudi and international professional organizations
- Demonstrate an understanding of the professional, legal, and ethical codes of practice
  - Demonstrate a knowledge of the ethical problems of human organ procurement for transplantation
  - Demonstrate a working knowledge of regional and local laws and regulations related to the practice of medicine in general and pediatric urology
  - Demonstrate an understanding and appreciation for pediatric urology patients', their families', and their care givers' legal rights in matters related to informed consent, delegated consent, and informed decision-making
- Fulfill the regulatory and legal obligations required of current practice
- Demonstrate accountability to professional regulatory bodies
- Recognize and respond to others' unprofessional behaviors in practice
- Participate in peer review

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

- Balance personal and professional priorities to ensure personal health and a sustainable practice
- Strive to heighten personal and professional awareness and insight
- Recognize other professionals in need and respond appropriately
- Identify a colleague or faculty member with whom they may discuss personal and professional goals, conflicts, and stresses

The CanMEDS (F1 & F2) Training Level - Specific Objectives Guide

Goals	Competencies						
CanMEDS Roles	**Medical Expert**	**Communicator**	**Collaborator**	**Leader**	**Health Advocate**	**Scholar**	**Professional**
A fellow is expected to be a competent specialist in pediatric urology and is capable of assuming a consultant's role in the specialty. The fellow must acquire a working knowledge of the theoretical basis of the specialty, including its foundations in the basic medical sciences and research. A Pediatric	Function effectively as pediatric urology fellow with increasing levels of responsibility according to their year of training; this must integrate all of the CanMEDS roles to provide optimal, ethical, and patient-centered medical care Establish and maintain clinical knowledge, skills, and attitudes appropriate to pediatric urology Perform a complete and appropriate assessment of a patient Use preventive and therapeutic interventions effectively Appropriately	Develop rapport, trust, and ethical therapeutic relationships with pediatric patients and their families Accurately elicit and synthesize relevant information and perspectives of pediatric patients, families, colleagues, and other professionals Convey relevant information and explanations accurately to pediatric urology patients, families, colleagues, and other professionals Develop a common understanding on issues, problems and plans with pediatric urology patients, families, and other professionals to develop a shared care plan Convey effective oral and written information about a medical encounter	Participate effectively and appropriately in an inter-professional health care team Work with other health professionals effectively to prevent, negotiate, and resolve inter-professional conflict	Participate in activities that contribute to the effectiveness of their health care organizations and systems career effectively Allocate finite health care resources appropriately Serve in adminstati-on and leadership roles	Respond to individual pediatric urology patient health needs and issues as part of pediatric urology patient care Identify the health determinants for the populations and communities they serve Promote the health of individual patients, communities, and populations	Maintain and enhance professional activities through ongoing learning Critically evaluate medical information and its sources, and apply this appropriately to in-practice decisions Facilitate the learning of patients, families, students, fellows, residents, other health professionals, the public, and others Contribute to the development, dissemination, and translation of new knowledge and practices Complete at	Demonstrate a commitment to their pediatric urology patients, profession, and society through ethical practice Demonstrate a commitment to their pediatric urology patients, profession and society through participation in profession-led regulation Demonstrate a commitment to physician health and sustainable practice

Goals	Competencies						
CanMEDS Roles	**Medical Expert**	**Communicator**	**Collaborator**	**Leader**	**Health Advocate**	**Scholar**	**Professional**
urology fellow must understand the normal function and the pathological processes and diseases that affect the adrenal gland, the kidneys, ureters, bladder, urethra in male and female patients, and the external male genitalia. This includes an understanding, appropriate to the practice of pediatric urology, of normal development, embryology, biochemistry, pharmacology, physiology, anatomy, and gross and microscopic pathology of the genito-urinary tract	use and interpret diagnostic tests relevant to pediatric urology Demonstrate proficient and appropriate use of procedural skills Seek appropriate consultation from other health professionals, recognizing the limits of their expertise					least one research project under the mentorship of an attending pediatric urologist, which should be at least presented in either a national or international scientific event and encourage its publication in peer-reviewed journal.	

Procedures and Clinical Skills Training - Specific objectives for (F1&F2)

Procedures and Clinical Skills	Procedures	F1	F2
1. Minor open/laparoscopic procedures	Minimum of 200 procedures performed collectively	Penis: Meatotomy 20 Circumcision 20 Buried penis/trapped penis 5 Congenital curvature/torsion 5 Webbed penis 5 Hypospadias: Distal 40 Chordee/torsion correction 20 Urethrocutaneous fistula 20 • Vesicostomy 5 • Testis: Inguinal orchidopexy 40 Laparoscopic orchidopexy 1st stage (10), 2nd stage (10) Orchidectomy (simple/radical) 4 Exploration for suspected torsion 4 Hydrocele/hernial repair 10 • Scrotoplasty/peno-scrotal transposition 5	
	Minimum required (%) to be promoted to next level of training	60	40
2. Major open/laparoscopic procedure	Minimum of 80 procedures performed collectively	• Pyeloplasty 20 • Ureteral reimplantation 10 • Nephrectomy (simple, radical/donor, partial) Nephroureterectomy 5 • Hypospadias repair: Proximal 20 Dermal graft /Buccal graft 5 • Ureterocele excision/diverticulectomy 2 • Epispadias repair 2 • Bladder/cloacal exstrophy repair 4 • augmentation cystoplasty/mitrofanoff & MACE/bladder neck reconstruction 5 • Laparoscopic excision of Müllerian structures. 2 • Feminizing genitoplasty 4 • External genitalia reconstruction: 5	
	Minimum required (%) to be promoted to next level of training	40	60
3. Minor endoscopic procedure	Minimum of 80 procedures performed collectively	• Cystoscopy 50 • Bladder biopsy/fulguration 2 • Posterior urethral valve incision/resection 10 • Incision of ureterocele 4 • Deflux injection 20 • Botox injection 10 • Urodynamic 10	
	Minimum required (%) to be promoted to next level of training	50	50
4. Major	Minimum of 6 procedures performed	• Ureteroscopy 2	

Procedures and Clinical Skills	Procedures	F1	F2
endoscopic procedures	collectively	• Cystolitholapaxy 2 • Percutaneous nephrolithotomy (PCNL) 2	
	Minimum required (%) to be promoted to next level of training	50	50
5. Management of trauma cases	Minimum of 4 cases collectively	• Pediatric urology trauma case 4	
	Minimum required (%) to be promoted to next level of training	50	50
6.Diagnostic/ Therapeutic urological procedures	Minimum of 24 procedures performed collectively	• Shock wave lithotrypsy (SWL) 4 • Urodynamics 20	
	Minimum required (%) to be promoted to next level of training	50	50

- FELLOW in F1 will be required mainly to perform minor (open /endoscopic/laparoscopic)
- FELLOW in F2 level will be required mainly to perform major (open /laparoscopic) procedures

TEACHING AND LEARNING

Time Management

Time management for the distribution of learning and educational activities

- At least 4-6 hours of formal training time should be reserved per week. Formal teaching time is an activity that is planned in advanced with an assigned tutor with time slots, and a venue. Formal teaching time can include any of the following:
  - Morning report or case presentations
  - Journal clubs
  - Systematic reviews etc.
  - Hospital grand rounds and other CMEs
  - Core specialty topics (see 2.2.4.), simulations, or workshops
- At least 1 hour for every two weeks should be assigned to meet with mentors, review of portfolio, mini-CEX, etc.

Practice-based Learning

Practice-based learning (PBL) contents

- Fellowship training educational curriculum, which includes:
  - Morning reports (MR)
  - Morbidity and mortality reports (MMR)
  - Grand rounds/guest speaker lectures
  - Case presentations
  - Journal clubs, critical appraisal, and evidence-based medicine
  - Joint specialty meetings
- Weekly half-day academic activity, which includes:
  - Topic review
  - Pediatric urological procedures
  - Approach to common conditions and symptoms
  - Clinical skills
  - Communication skills
  - Medical ethics
  - Data interpretation
  - Research and evidence-based medicine
- Work-based learning, which includes:
  - Daily round based learning
  - On-call duty based learning
  - Clinical-based learning
- Self-directed learning (SDL)

Practice-based learning (PBL) objectives

ACTIVITY	OBJECTIVES	CanMEDS COMPETENCIES
1. Educational Curriculum		
a. Morning Report (MR)	• Educate all attending staff, monitor pediatric urology patient care, and review management decisions and their outcomes. • Develop competence in a short presentation on all admitted pediatric urology patients in a scientific and informative fashion. • Develop confidence in presenting long cases in a systematic fashion. • Generate appropriate differential diagnosis and proper management plan.	Leader Medical Expert Professional Scholar
b. Morbidity and Mortality Report (MMR)	• Identify areas of improvement for clinicians involved in the case management. • Prevent errors that lead to complications. • Modify behavior and judgment based on previous experiences. • Identify systems issues that may affect the pediatric urology patient care, such as outdated policies and changes in patient identification procedures.	Professional Leader Medical Experts
c. Grand Rounds/Guest Speaker Lectures.	• Increase physician's medical knowledge and skills, and ultimately, improve patient care. • Understand and apply current practice guidelines in the field of pediatric urology. • Describe the latest advances in the field of pediatric urology and research. • Identify and explain areas of controversy in the field of pediatric urology.	Medical Expert Professional
d. Case Presentation	• Formulate a list of all problems identified in the history and physical examination. • Develop a proper differential diagnosis for each problem. • Formulate a diagnosis/treatment plan for each problem. • Present a follow-up patient's case in a focused, problem-based manner that includes pertinent new findings and diagnostic and treatment plans. • Demonstrate a commitment to improving case presentation skills by regularly seeking feedback on presentations. • Accurately and objectively record and present data.	Medical Expert Scholar
e. Journal Clubs, Critical Appraisal and Evidence Based Medicine	• Promote continuing professional development. • Keeping up-to-date with the literature. • Disseminating information on and build up debate about good practice. • Ensuring that professional practice is evidence based. • Learning and practicing critical appraisal skills. • Providing an enjoyable educational and social occasion.	Medical Expert Scholar Health Advocate
f. Joint Specialty Meetings.	• Provide the knowledge, technical skills, and experience necessary for pediatric urology fellows to interpret and correlate clinical finding and laboratory data, such as radiological imaging with the pathological changes. • Promote effective communication and sharing of expertise with peers and colleagues. • Promote the development of investigative skills to better understand pathologic processes as they apply to both individual patients and the general patient population. • Promote the acquisition of knowledge, provide experience in laboratory direction and management, and encourage fellows to assume a leadership role in educating other physicians and allied health professionals.	Medical Expert Communicator Collaborator Leader

2. Academic Half Day		
a. Topic Review	• Review common emergency and non-emergency situations in term of diagnosis and management.	Medical Expert Scholar
b. Urological Procedures	• Apply knowledge and technique expertise in performing the procedure, interpreting the results and understanding their limitations. • Demonstrate effective, appropriate, and timely performance of therapeutic procedures • Demonstrate evidence-based physical examination skills that are relevant and concise. • Learn ultrasound guided procedures • For each procedure should master: - Indications. - Contraindications. - Complications and complication rate. - Procedural technique. - Sterile technique. - Consent for that procedure. - Be able to demonstrate the procedure on a task trainer. - Be familiar with ultrasound technology in general. - Reporting of complications.	Medical Expert Professional Collaborator
c. Approaches to Common Conditions and Symptoms	• Demonstrate diagnostic and therapeutic skills. • Access and apply relevant information to clinical practice. • Practice contemporary, evidence-based, and cost-effective medicine. • Avoid unnecessary, harmful investigations, or management.	Medical Expert Scholar Professional
d. Clinical Skills	• Recognize the many facets of the doctor-patient relationship and be able to apply a biopsychosocial model to issues in health and medicine. • Master basic interviewing skills and demonstrate competence in some advanced interviewing skills. • Master basic skills in physical examination and be able to perform and interpret a focused examination. • Exhibit professional behaviors including demonstrating respect for patients, colleagues, faculty, and others in all settings. • Prepare the fellow for the clinical exams.	Medical Expert Scholar Communicator Professional
e. Communication Skills	• Recognize the many facets of the doctor-patient relationship and be able to apply a biopsychosocial model to issues of health and medicine. • Develop patient-centered therapeutic communication through shared decision-making and effective dynamic interactions with patients, families, caregivers, other professionals, and other important individuals. • Master skills of basic interviewing and demonstrate competence in some advanced interviewing skills. • Exhibit professional behavior including demonstrating respect for pediatric urology patients, colleagues, faculty, and others in all settings.	Communicator Profession
f. Medical Ethics	• Recognize the humanistic and ethical aspect of the medical career. • Examine and affirm their personal professional moral commitments. • Develop a foundation of a philosophical, social, and legal knowledge • Apply ethical knowledge in clinical care	Communicator Medical expert Professional
g. Data	• Describe of the different investigational tools used in pediatric	Medical expert

Interpretation	urology. • Enhance proper interpretation of different investigational data. • Enhance proper utilization of investigational tools. • Recognize the limitations of different investigation tools.	Scholar
h. Research and Evidence-based Practice	• Develop a sound knowledge in research design including ethics, study design, abstract writing skills, and presentation skills. • Gain competence in literature review, data synthesis, data analysis, and interpretation. • Develop a viable research proposal with the help of faculty mentor • Conduct a research on a topic broadly related to pediatric urology • Disseminate research findings through oral presentations, poster presentations, abstract preparation, or article publication	Scholar Professional Leader
3. Work-based learning		
a. Daily Round Based Learning	• Present a focused history and physical examination findings to the rounding team. • Document historical and physical examination findings according to accepted formats including a complete written database, problem list, and a focused S.O.A.P. note. • Develop a patient management plan in consultation with others	Medical Expert Communicator Health Advocate Professional
b. On-Call Duty Based Learning (OBL)	• Elicit a comprehensive history and perform a complete physical examination upon admission, clearly write the pediatric urology patient's assessment, and differential diagnosis of medical problems, then initiate the plan of management. • Discuss the plan of management, including investigations and treatment plan, with the seniors. • Communicate the plan to the nurse assigned to the patient's care. • Perform the basic procedures necessary for diagnosis and management. **As a senior fellow to:** • Supervise the junior fellows and residents' admission notes and orders, discuss the proposed plan of management, and supervise its implementation. • Supervise the junior fellows' skills in history taking and physical examination. • Help junior fellows and residents interpret laboratory investigations and perform bedside diagnostic and therapeutic procedures. • Attend consultations within and outside the department, including emergency consultations, and participate in outpatient clinic once or twice weekly.	Medical Expert Scholar Health Advocate Professional
c. Clinic-Based learning (CBL)	• Elicit a focused history and physical examination under the supervision of the consultant/senior resident and fellows • Present briefly the clinical finding to the attending consultant/senior resident. • Discuss the differential diagnosis and the management plan with the attending consultant/senior resident. • Write the patient's assessment and differential diagnosis, and the plan of management. • Develop communication skills from the attending consultant/senior resident/fellows **As a senior fellow to:** • Supervise the junior resident's notes, orders, and management of the attending junior resident. • Write a concise note while on-call. • Discuss the plan of management, including investigations,	Medical Expert Communicator Health Advocate

	treatment, and referral to other disciplines with the consultant. • Discuss with consultants about the need for specialized procedures. • Elicit clinical signs for the junior resident/fellows • Interpret and discuss the laboratory results with junior residents/fellows • Assess the performance of junior residents/fellows in terms of focused history taking, focused physical examination, and communication skills.	
4. Self-Directed Learning (SDL)		
	• Achieving personal learning goals beyond the essential core curriculum. • Maintenance of personal portfolio (self-assessment, reflective learning, personal development plan) • Proactive conducts audit and research projects. • Develop a habit of reading journals.	Professional Medical Expert Scholar

Core Education Program (CEP)

This would include the following two formal teaching and learning activities

Core specialty topics: 80%

- Format of presentation: Interactive lectures, case discussion, quizzes
- Duration: 2 hours
- Core Specialty Topics: Case Discussions, interactive lectures, videos, workshops

Topic	Learning Objectives
1. Back/flank pain colic	• Identify the standard investigation • List all differential diagnosis • Describe the standard management for pain
2. Enlarged kidney	• List the differential diagnosis, • Learn the standard methods of investigation and management
3. Hematuria in emergency	• List causes • Describe the acute management
4. Urine analysis and microscopy	• Describe the basis of the test • Interpret U/A
5. Renal cystic diseases	• Describe the pathophysiology of various types of renal cystic disease • Describe the standard investigations and principles of management
6. Urinary tract dilation	• Describe the epidemiology • Define the grading system • Describe the standards of management
7. Urinary tract infections	• Describe the different classification systems • Describe the standards of management
8. Pediatric renal failure	• Describe the pathophysiology • Manage urological causes of renal failure in emergency settings • Describe the perioperative management of patients with renal insufficiency
9. Urinary retention in pediatrics	• Recognize the different causes of acute urinary retention (AUR) • and the principles of management • Describe how to deal with difficult catheterization
10. Pediatric urodynamic	• Describe the mechanics • List the clinical utilization • Interpret urodynamic studies
11. Wetting	• Differentiate between incontinence and enuresis

	• Classify the causes • Describe the approach of evaluation of management
12. Acute scrotum	• Describe the causes • Understand the principles of management
13. Empty scrotum	• Describe the immediate management, investigation, and surgical intervention
14. Ambiguous genitalia	• Describe the immediate evaluation • Describe the surgical approach
15. Pediatric patient with multiple trauma	• Describe the principles of managing genito-urinary trauma in this setting
16. Guide wires and catheters	• Describe the various types of guide wires and catheters used in urology and their utilization
17. Minimally invasive surgery (MIS) in pediatrics	• Understand the evolution of endoscopy, laparoscopy, and robotic surgery • Describe their indication, application, and limitations
18. Imaging in urology	• List the diagnostic and therapeutic imaging tools used in urology • Describe the physics of imaging • Recognize the appropriate utilization
19. Post-obstructive diuresis	• Understand the pathophysiology • Identify patients at risk • Manage a patient presenting with post-obstructive diuresis
20. Scrotal mass in pediatrics	• Describe the different pathologies • Describe the possible evaluation methods • Describe the indicated management

Professional development topics

- The art of presentation
- Principles of research
- Seeing beyond health experts
- Health advocacy
- Portfolio in training

Communication and counseling

COMMUNICATION SITUATIONS
Disclosing medical errors
Documentation
Breaking bad news
Expressing empathy
Dealing with pediatric urology patients' emotions (e.g., anger, fear, sadness)
Cultural diversity
End of life discussion
Informed consent
Special needs pediatric urology patients (learning disability, low literacy)
Disclosing adverse events
Establishing boundaries
Explaining diagnosis, investigation, and treatment
Involving the pediatric urology patient in decision-making processes
Communicating with relatives and dealing with difficult pediatric urology patients/families
Communicating with other health care professionals
Seeking informed consent/clarification for an invasive procedure or obtaining consent for a post-mortem
Giving instructions on discharge
Giving advice on lifestyle, health promotion, or risk factors

Practical skills training (simulations and workshops)

(The implementation of such projects will be based on logistic feasibility and equal opportunity for all fellows and training centers across the Kingdom)

For F1 & F2

Simulation Projects	Description
Fundamentals of laparoscopic/robotic surgery	• Hands on • Wet and dry labs • 2 days
Bowel reconstructive workshop	• Hands on • Wet and dry labs • 2 days

Fellow selected topics (20%)

- Fellows will be able to develop a list of topics on their own.
- They can choose any topic relevant to their needs
- All topics must be planned and cannot be random
- All topics need to be approved by the local education committee
- Delivery will be local
- Institutions may work with trainees to determine the topics.

ASSESSMENT

Description: Evaluation and assessment of fellows throughout the program are undertaken in accordance with the Commission's training and examination rules and regulations. This includes the following:

Continuous Evaluation

To fulfill the CanMEDS competencies based on the end-of-rotation evaluation, the fellow's performance will be evaluated jointly by relevant staff members who will assess the following competencies:

1) Performance of the trainee during daily work.
2) Performance and participation in academic activities.
3) Performance in a 10–20 minute direct observation assessment of trainee-patient interactions. Trainers are encouraged to perform at least one assessment per clinical rotation, preferably near the end of the rotation. Trainers should provide timely and specific feedback to the trainee after each assessment of a trainee-patient encounter.
4) Performance of diagnostic and therapeutic procedural skills by the trainee. Timely and specific feedback for the trainee after each procedure is mandatory.
5) The CanMEDS-based competencies end-of-rotation evaluation form must be completed within two weeks following the end of each rotation (preferably in an electronic format). The program director will discuss the evaluation with the fellow, as necessary. The evaluation form will be submitted to the Regional Training Supervisory Committee of the SCFHS within four weeks following the end of the rotation.
6) The assessment tools, in a form of educational portfolio (i.e., monthly evaluation, rotational Mini-clinical Evaluation Exercise [Mini-CEX] and Case-based Discussion [CBDs], Multisource, etc.).
7) The academic or clinical assignments should be documented by an electronic tracking system (when applicable) on an annual basis. Evaluations will be based on accomplishment of the minimum requirements of the procedures and clinical skills as determined by the program.

End of Year Annual Report:

A summative continuous evaluation report is prepared for each fellow at the end of each academic year and may also involve clinical or oral examinations, or an objective structured clinical examination.

End of Year examination:

The end-of-year promotion examination will be limited to F1 fellows. The number of examination items, eligibility, and passing score are established in accordance with the Commission's training and examination rules and regulations. Examination details and a blueprint are published on the Commission website, www.scfhs.org.sa

Final In-training Evaluation Report (FITER)/Comprehensive Competency Report (CCR)

In addition to the local supervising committee's approval of the completion of the clinical requirements (via the fellow's logbook), the program directors prepare a FITER for each fellow at the end of the program (Appendix 1). This could also involve clinical or oral examinations or completion of other academic assignments.

Final Pediatric Urology Saudi Fellowship Examination

The final Saudi Fellowship examination consists of two parts:

1. **Written Examination**
   This examination assesses the trainee's theoretical knowledge base (including recent advances) and problem-solving capabilities in Pediatric urology subspecialty; it is delivered in MCQ format and is held at least once per year. The number of examination items, eligibility, and passing score are established in accordance with the Commission's training, and examination rules and regulations. Examination details and a blueprint are published on the Commission's website, www.scfhs.org.sa
2. **Oral Structure Clinical Examination& Oral Structure Examination (OSCE&OSE):**
   This examination assesses a broad range of high-level clinical skills, including data gathering, patient management, communication, and counseling. The examination is held at least once per year, as an objective structured clinical examination (OSCE) in the form of patient management problems (PMPs). Eligibility and the passing score are established in accordance with the Commission's training and examination rules and regulations. Examination details and a blueprint are published on the Commission website, www.scfhs.org.sa

Certification

A certificate acknowledging training completion will only be issued to the fellow upon successful fulfillment of all program requirements. Candidates passing all components of the final specialty examination are awarded the "Saudi Fellowship of Pediatric Urology" certificate.

APPENDICES

Pediatric urology comprehensive in-training evaluation (CER) report

Pediatric urology comprehensive in-training evaluation (CER) report

Fellow's Name: _____

Training Center: _____

Level of Training (F1&F2): _____

Rotation Dates: _____ SCFHS # _____

Competencies	Meeting Expectations *				
	Rarely	Inconsistently	Generally	Exceeds	N/A
Medical Expert					
1. Basic and clinical knowledge					
2. History and physical exam					
3. Clinical decisions					
4. Emergency management					
5. Indication for surgical procedures					
Procedures and clinical skills					
6. Endoscopic procedure					
7. Open surgical procedure					
8. Laparoscopic procedure					
Communicator					
9. Therapeutic relationship to pediatric urology patients					
10. Documentation					
11. Planning					
12. Clear presentation					
Collaborator					
13. Interacts with health professionals					
14. Consultations					
15. Manages conflicts					
Leader					
16. Uses information technology					
17. Understands resources					
18. Time management					
19. Policies and procedures					
20. Maximizes benefit to pediatric urology patients					
Health advocate					
21. Responds in advocacy situation					
Scholar					
22. Understands the continuous need for education					
23. Implements ongoing self-education plan					
24. Analyzes and integrates medical information					
25. Teaches others					

26. Fills the electronic log-book					
Professional					
27. Professional attitude					
28. Understands medical and legal obligations					
29. Punctual					
30. Ethics and moral					
31. Accepts advice					
32. Participates in professional organizations					
Total					

Please comment on the candidate's strengths and weaknesses. Make direct reference to the specific objectives and give specific examples wherever possible.

Score					
Evaluation Methods	Mini-CEX	DOPS	OSCE	MCQ	Other:

Residency Training Committee	1. Date	4. Date
	2 Date	5. Date
	3. Date	6. Date

Program Director: _____

Date:_____ Signature: _____

Name:

Fellow: _____

Date:-_____Signature: _____

Name:

- * Rarely ≤ 30 %, Inconsistently > 30-60 %, Generally > 60-90 %, Exceeds >90 %
- *60% is the minimum required mark to validate each evaluation period