



Kuwait Institute of Medical Specialization
Urology Residency Training Program



Al-Amiri Hospital

Rotation goals and objectives

General objectives:

The rotation at Al-Amiri hospital provides training in adult general urology. Residents from all levels have rotations in Al-Amiri hospital, however there will not be more than one resident from the same PGY level at the same time to ensure more benefit gained by each level.

During this rotation, residents are expected to acquire knowledge, skills and attitudes that are in accordance with the CanMEDS competencies framework, which will allow appropriate assessment, investigation and management of adult urological problems in the ambulatory, emergency, and inpatient preoperative, operative, and post-operative settings. It should be recognized that much of the teaching during this rotation will occur during, or a result of, direct patient care.

There is particular emphasis on urolithiasis, laparoscopic surgeries, neuro-urology, female urology and andrology. There is also training in broad-based, general urologic practice including uro-oncology, benign prostatic diseases, trauma, and infective and inflammatory diseases.

Participating in research activities is mandatory for all residents during rotations in Al-Amiri hospital.

About Amiri Hospital:

Al-Amiri hospital is a governmental secondary care center located in the capital of Kuwait. It houses a urology unit with a fully equipped department that has multiple examination rooms, multidisciplinary room, ESWL suite, TRUS room, day case room for procedures such as diagnostic flexible cystoscopy as well as a urodynamics assessment room. Other specialties in the hospital are general surgery, general pediatrics, all the medical specialties and an emergency department. Al Amiri hospital is a major hospital that serves a potential of 500,000 patients in the Capital health governorate, with allowance for transfers, and is on the verge of having a major structural expansion.

Hospital bed capacity: 470 beds

Annual operative case flow: around 900 cases

Urology Competencies:

❖ Medical Expert:

The resident will acquire knowledge, learn skills and develop professional attitudes that will allow them to practice in their provision of patient-centered care, utilizing available elements from patient history, physical examination, imaging and lab/special testing.

The component skills include, but are not limited to:

- Perform a focused physical examination and urological history, including past and present medical history relevant to the urological care of the patient.
- Formulate a differential and provisional diagnosis.

- Plan further diagnostic strategies to refine the diagnosis as required with sensitivity to patient concerns, cost and a rationale use of medical testing.
- Plan therapeutic strategies based on the Urologic diagnoses with sensitivity to patient concerns, and cost.
- Counsel patient empathically and an evidence couched approach, respecting their cultural values and ethics.
- Communicate the consultation, both verbally and in written format, including a clear plan of action or recommendation.
- Demonstrate the ability to prioritize professional duties when faced with multiple patients and problems.
- Demonstrate compassionate and patient-centered care.
- Formulate a clear discharge plan with future follow up plan that is convenient to the patient and his family.
- Actively contribute to continuous quality improvement of health care quality and safety.
- Recognize and respond to the ethical dimensions in medical decision-making.

Residents will apply clinical knowledge to better understand multiple conditions encountered that include, but are not limited to:

- Obstructive disease of the upper urinary tract:
 - Hydronephrosis and obstructive uropathy
 - Ureteropelvic junction obstruction
- Obstructive disease of the lower urinary tract.
 - Bladder outflow obstruction
 - Benign prostatic hypertrophy
 - 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
 - Prostatitis including chronic pelvic pain syndrome
 - Sexually transmitted infections
 - Genito-urinary tuberculosis
 - Genito-urinary parasitic diseases.
 - Fungal urinary tract infections

- 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

- Andrology
 - Male sexual function and dysfunction
 - Fertility and male factor infertility
 - Hypogonadism

- Urological oncology
 - Tumours of the kidney
 - Renal epithelial tumours
 - Wilms' tumour
 - Urothelial carcinoma of renal pelvis and ureter
 - Angiomyolipoma
 - Other tumours
 - Tumours of the bladder
 - Urothelial carcinoma
 - Squamous cell carcinoma
 - Other tumours

 - Cancer of the prostate
 - Adenocarcinoma
 - Other tumours
 - Tumours of the testis
 - Germ cell (including seminoma and non-seminoma)
 - Non-germ cell tumours
 - Cancer of the penis
 - Squamous cell carcinoma
 - Cancer of the urethra
 - Tumours of the adrenal
 - Pheochromocytoma
 - Neuroblastoma
 - Adrenal adenoma
 - Adenocarcinoma

- Voiding disorders including relevant neurourology
 - Urinary incontinence
 - Voiding dysfunction due to neurological disease

- Nocturnal enuresis
- Functional voiding disorders
- Interstitial cystitis
- Disorders of the male external genitalia
 - Hydrocele, varicocele, spermatocele, cysts
 - Torsion of the testis, cord and appendages
 - All benign, premalignant and malignant dermatological lesions of the male external genitalia

The resident will develop and demonstrate knowledge of how to appropriately use and interpret diagnostic testing in Urology, including but not limited to:

- Urinalysis
- Semen analysis
- Prostatic fluid examination
- Biochemical serum studies
- Intravenous excretory urography
- Retrograde urethrography cystography and pyelography
- Antegrade imaging of the kidneys and pelvic vessels
- Voiding cystourethrography
- Ultrasonography
 - Kidney, Bladder, Prostate and Scrotal contents
 - Doppler studies of renal, gonadal and penile vessels
 - Ultrasound-guided procedures (aspirations, biopsies, drainage)
- 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
- Phalldynamics
- Diagnostic histopathology

Residents will develop and demonstrate knowledge of the mechanism of action and physiological effects of therapeutic technologies relevant to Urology:

- Electrosurgery
- Extracorporeal shock wave lithotripsy
- Lasers
- Transurethral prostatic hyperthermia / thermotherapy and other alternative modalities used in the management of patients with benign prostatic hyperplasia
- Botulinum toxin intradetrusal injections
- Neurostimulation
- Radiofrequency ablation
- Cryotherapy

Surgical skills and procedures:

- **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:
 - Cystoscopy and urethroscopy, ureteric catheterization including ureteric stent insertion and removal, and retrograde pyelography
 - Urethral dilatation and visual internal urethrotomy
 - Transurethral biopsy of bladder and urethra
 - Transurethral resection of prostate
 - Transurethral resection of bladder tumours
 - 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
 - Percutaneous renal surgery including nephrolithotomy with ultrasound/electrohydraulic/laser lithotripsy
 - Botulinum toxin intradetrusal injections
 - Open Surgical Procedures:
 - Circumcision
 - Suprapubic cystostomy
 - Urethral meatotomy and meatoplasty
 - Fulguration of venereal warts
 - Biopsy of penile lesions
 - Testicular biopsy
 - Vasectomy

- Scrotal surgery - hydrocele, epididymal cyst, epididymectomy and simple orchidectomy
- Cavernosal shunting procedures for priapism
- Varicocele repair
- Orchidopexy for inguinal testis
- Radical orchidectomy
- Repair of testicular torsion
- Procedures for correction of stress urinary incontinence
- Uretero-neocystostomy
- Repair of urinary fistulae - involving bladder, urethra, ureter, kidney
- Urinary diversion procedures - ileal conduits
- Procedures for ureteral and bladder trauma repair
- Pyeloplasty for ureteropelvic junction obstruction
- Nephrectomy (simple and radical)
- Partial nephrectomy for cancer
- Nephroureterectomy
- Sacral neuromodulation
- Laparoscopic Procedures
 - Laparoscopic nephrectomy (simple and radical)
- **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:
 - Transrectal ultrasound guided biopsy of the prostate
 - Endoscopic pyeloplasty (endopyelotomy)
 - Percutaneous nephrostomy
 - Open Procedures:
 - Renal biopsy
 - Nephrolithotomy and ureterolithotomy
 - Ureterolysis, ureteroplasty, uretero-pyelostomy
 - Cuaneous ureterostomy/pyelostomy
 - Vesicostomy
 - Procedures for renal trauma repair
 - Procedures for correction of penile curvature and Peyronie's disease
 - Penectomy
 - Urethrectomy
 - Augmentation cystoplasty
 - Continent urinary reservoir

- Drainage of perinephric, perivesical and retroperitoneal abscess
- Adrenalectomy including surgery of pheochromocytoma
- Insertion of testicular prosthesis
- Insertion of penile prosthesis
- Radical nephrectomy with vena cava thrombus below diaphragm
 - Laparoscopic Procedures:
 - Laparoscopic orchiopexy/orchiectomy for abdominal testis
 - Adrenalectomy
 - Pyeloplasty
- **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:
 - Transurethral excision of external sphincter
 - Open Procedures:
 - Removal of vena caval and atrial tumour thrombus for carcinoma of the kidney
 - Epididymo-vasostomy with microscope
 - Post-chemotherapy retroperitoneal lymph node dissection
 - Laparoscopic Procedures:
 - Varicoceletomy
 - Prostatectomy
 - Live donor nephrectomy

Teaching Methods:

These competencies will be taught and assessed in the following ways:

- Attending urologists at Al-Amiri hospital will be oriented and knowledgeable of the rotation goals and objectives and will be highly motivated to ensure each resident has sufficient exposure to clinical material.
- High volume of emergency surgical cases and emergency room consultations where residents will be the primary responders and supervision level will be according to their training level. The responses and initial assessment of the cases will be evaluated with an immediate feed-back by the attending urologists.
- High volume of elective surgical cases that will be assessed and reviewed by the residents, then presented to the attending urologists.

- Review and discussion of the critical cases, recent histopathology reports, and procedural complications during the weekly major meeting held on Sunday mornings, where the most senior resident leads the discussion and involves junior residents in an organized way monitored by the head of unit and other attending urologists.
- Careful review of residents' documentations, including progress notes, discharge summaries, operations reports and consultations to other services.
- Real-time teaching and assessment of technical skills during each procedure.
- Use of an adapted version of the "O-Score sheet" to evaluate the procedural skills and safety in the operative theatre.
- Use of an adapted version of the "O-CAT form" to evaluate resident involvement in outpatient clinics
- Use of an adapted version of the "Mini-CEX" and "Daily Encounter Cards" and rubrics to evaluate resident performance during ward rounds
- Written ITER at the end of each block.
- Face-to-face feed-back during a meeting with the site coordinator at mid and end of the rotation.

❖ **Communicator:**

The residents will develop and demonstrate skills Urologists use to effectively facilitate the doctor-patient and doctor-patient's family relationship and the dynamic changes that occur before, during and after the medical encounter. These include, but are not limited to:

- 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.
- Establish positive therapeutic relationships with patients and their families that are characterized by understanding, trust, respect, honesty and empathy.
- Respect patient 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.

The resident should develop and demonstrate communication skills in daily practice in multiple forms and situations, including but are not limited to:

- Delivering information in a logical, direct and informative manner that is patient centered and encourages discussion with patients and their families.
- Communicate bad news to patients and families in an empathic manner.
- Respect diversity and difference, including but not limited to the impact of gender, religion and cultural beliefs on decision-making.

- Engage patients, families, and relevant health professionals in shared decision making and informed consent process to develop a plan of care.
- Demonstrate awareness of their own feelings and biases and recognize any personal reactions which may be detrimental to the physician-patient relationship.
- Address challenging communication issues effectively such as the angry, anxious, confused patient for example.
- Maintain clear, accurate, and appropriate records (e.g., written or electronic) of clinical encounters and plans.
- Communicate opinions clearly in the form of consultation letters, telephone calls to other consultant specialists and allied health professionals.
- Present verbal reports of clinical encounters and plans.

Teaching Methods:

These competencies will be taught and assessed in the following ways:

- During direct patient care, the residents will have the opportunity to speak and assess patients in the presence of the attending urologists. Issues related to communication will be explicitly discussed and developed with the attending at an appropriate time.
- In the outpatient clinics, residents will be directly observed during interview with patients, and issues related to communication will be immediately taught and assessed.
- Senior residents will lead a meeting with the families of critically ill patients to discuss the prognosis and further management plan. These meetings will be observed by the attending urologist and an immediate feed-back will be given to the resident regarding communication.
- Resident delivery of status updates, bad news, or general communication with patients and their families will be assessed by faculty and fed back to the residents face to face.
- Counseling and gathering of informed consent for surgical patients with detailed explanation of the procedure and the complications, will be done by the resident in simple language that can be understood by the patient. This will be directly observed, evaluated and fed back to the resident by attending urologist.
- Written consultation letters and telephone calls to other specialties will be evaluated and assessed by the receiving consultant with regards to communication skills and professionalism, and a feed-back will be given to the attending urologist, who will later discuss it with the resident.
- Two nursing evaluation of the residents' communication skills will be done at the end of the rotation. One is done by the OR nurses to evaluate the communication skills during procedures, and the other evaluation will be done by the ward nurses to evaluate communication skills of the residents in daily management of the admitted patients.

- During scholarly presentations that occur during the rotation (weekly meeting scientific presentations, mortality and morbidity meetings, and research day), the residents will receive feed-back on their presentation skills from the attendings and form their fellow residents.
- Use of an adapted version of the “O-CAT form” to evaluate resident involvement in outpatient clinics with regards to communication skills
- Use of an adapted version of the “Mini-CEX” and “Daily Encounter Cards” and rubrics to evaluate resident performance during ward rounds with regards to communication skills

❖ **Collaborator:**

The resident will develop and demonstrate skills Urologists use to work effectively within a health care team to achieve optimal patient care. These include but are not limited to:

- Describe the Urologist’s roles and responsibilities to patient and other professionals
- 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 patients (or groups of 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 urological team meetings
- Describe the principles of team dynamics
- Demonstrate a respectful attitude towards other colleagues and members of an interprofessional team.
- Work with other professionals to prevent conflicts.
- Respect differences and address misunderstandings and limitations in other professionals.
- Demonstrate safe handover of care.

Teaching Methods:

These competencies will be taught and assessed in the following ways:

- Residents will participate in daily rounds in addition to the weekly major round, where they will present cases and discuss the active issues of the patients with the opinions of other professionals regarding the same patients.
- Residents will attend the outpatient clinics, where they will interact with the attending urologist, nursing staff and professionals from other specialties

referring patients to the urology clinic, and these interactions will be evaluated and fed back by the attending faculty.

- Attending the various procedures taking place in the urology department suite, like urodynamics, TRUS, ESWL and other procedures will be organized and distributed by the senior resident, and the interaction of the residents with the attending urologists will be evaluated by the senior resident and the attending faculty.
- Collaboration between residents and other attending urologist in the management of the ward and preparing for daily rounds, will be directly observed by the site coordinator.
- Emergency patient management will be observed by the faculty with regards to collaborative skills with ER physicians, nursing staff, and professionals from other specialties involved in the acute management of the same patients.
- In the OR, residents will have a direct feed-back from the attending urologist regarding their collaboration with OR nurses and anaesthesia as well as well as discussing feedback forms from these staff utilizing the “360-Degree” and “Multisource Feedback” forms.
- The residents will receive daily feedback from the attendings on issues of collaboration whenever the situation arises.
- Direct observation of handover of care from one resident to another during periods of transition of care including: evening on-call, daytime on-call, daytime attending service, to another resident/fellow/faculty member, transfer of care to another service, transfer of care to another facility, discharge planning, and discharge summaries.
- Any issue of collaboration or a conflict that arises between the resident and any other healthcare professional must be notified to the most senior resident, who is allowed to call for an urgent meeting with the site coordinator at any time to address the issue.

❖ Leader:

The resident will develop and demonstrate skills that urologists use to contribute to a vision of a high-quality health care system and take responsibility for the delivery of excellent patient care. These include, but are not limited to:

- Work collaboratively with others in their organizations
- Participate in systemic quality process evaluation and improvement, such as patient safety initiatives
- Manage time and priorities appropriately to balance patient care, education and personal life.
- Access appropriate urological diagnostic and therapeutic technology in a timely and efficient manner to benefit their patients.
- Utilize information technology appropriately
- Organize a priority list for patients waiting surgery.

- Participate in meetings / rounds and provide leadership when appropriate.
- Plan relevant elements of health care delivery (e.g., work schedules).

Teaching Methods:

These competencies will be taught and assessed in the following ways:

- All residents will be assigned to high quality clinical service, where they will be leading the service in terms of directing inpatient care, discharge status, operative time-out and debriefing.
- The most senior resident will be the chief resident at this site, and will develop skills of distributing duties among junior residents, address all issues as they arise, and discuss with the site coordinator ways of improving and developing training.
- Participate in monthly Morbidity and Mortality rounds, presenting cases as appropriate and discussing key points.
- Residents will not only participate in the daily rounds, but they will take turns in leading the rounds and initiating discussions, and this will be directly observed and assessed by the attending faculty to comment on leadership skills.
- Participate in the meetings with IT specialists, social workers, hospital security managers and other specialties in order to help improve the health care system and safety of the patients and professionals.

❖ Health advocate:

The residents will develop skills that will help them use their expertise and influence to advance the health and well-being of individual patients, communities, and populations. These include but are not limited to:

- Identifying the health needs of individual, groups and populations of Urological patients
- Identify opportunities for advocacy, health promotion and disease prevention in the communities that they serve, and respond appropriately
- Identify the determinants of health of the populations, including barriers to access to care and resources
- Describe an approach to implementing a change in a determinant of health of the populations they serve.
- Describe how public policy impacts on the health of the populations served.
- Describe the role of the medical profession in advocating collectively for health and patient safety.
- Understand the role and function of the Kuwait Urological Association and other national health societies and international urological societies

Teaching Methods:

These competencies will be taught and assessed in the following ways:

- Identify the unique populations served by this hospital and Health Authority and the determinants and barriers to health while interacting with them during ER, inpatient and perioperative periods.
- Residents will work with social workers and other professionals to discuss long term plan for specific patients who have limited social and financial support and are under risk of recurrence or deterioration of their conditions.
- Residents will participate in awareness campaigns that are held by Al-Amiri hospital and nationally that target special populations e.g. men's health awareness campaign that is held in November of each year.
- Residents are to participate in the annual conference held by the Kuwait Urological Association and all its events, where educational and health advocacy events will be held.

❖ **Scholar:**

As Scholars, residents will develop skills that urologists use to demonstrate a lifelong commitment to reflective learning, as well as the creation, dissemination, application and translation of medical knowledge. These include but are not limited to:

- Describe the principles of maintenance of competence.
- Describe the time commitment required for ongoing self-study for the maintenance of competence.
- Recognize and reflect on learning issues in practice.
- Access and interpret the relevant evidence.
- Integrate new learning into practice, while ensuring the safety of the patients.
- Demonstrate continuing evaluation of their own capabilities and limitations.
- Critically evaluate medical information and its sources, and apply this appropriately to practice decisions.
- 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.

Teaching Methods:

These competencies will be taught and assessed in the following ways:

- Residents will participate in daily morning rounds, where they will have discussion with the attending urologist about each case with review of guidelines and updates related to the cases presented.

- Residents will participate in the weekly Sunday meeting, where they will have to present a short talk about specific topic, and this will be directly assessed by attending urologists and fellow residents.
- Residents will participate in the weekly formal Urology Academic Half Day, held every Thursday and lead or participate on topics as assigned.
- Residents must attend the monthly journal club, supervised by an attending faculty, where they will discuss and critically appraise urological articles.
- Residents will participate in the monthly “guidelines meeting”, where they will present specific guidelines regarding an assigned topic, and they will discuss them with attending urologists and fellow residents.
- Senior residents will teach junior residents in daily rounds, OR, outpatient clinic and in special teachings sessions, and these teaching activities will be observed and evaluated by the site by the attending urologists.
- During the rotation at Al-Amiri hospital, residents are obligated to participate in at least one research with supervision of faculty.

❖ **Professional:**

As professionals, residents will develop skills that will make them committed to the health and well-being of individuals and society through ethical practice, high personal standards of behavior, accountability to the profession and society, profession-led regulation, and maintenance of personal health. These include, but not limited to:

- Exhibit appropriate professional behaviors in practice, including honesty, integrity, commitment, compassion, respect and altruism.
- Demonstrate a commitment to delivering the highest quality care and maintenance of competence.
- Demonstrate meticulous documentation practices.
- Recognize and appropriately respond to ethical issues encountered in practice.
- Manage conflicts of interest
- Maintain appropriate relations with patients
- Participate in Kuwaiti and international professional organizations
- Demonstrate knowledge and an understanding of the professional, legal and ethical codes of practice.
- Fulfill the regulatory and legal obligations required of current practice.
- Recognize and respond to others’ unprofessional behaviours in practice.
- Balance personal and professional priorities to ensure personal health and a sustainable practice.
- Identify a colleague or faculty member with whom they may discuss personal and professional goals, conflicts and stresses.

Teaching Methods:

These competencies will be taught and assessed in the following ways:

- Residents will be directly observed in their interactions with other staff in the hospital, including fellow urologists, nursing staff, other services. They will be assessed and evaluated regarding these interactions, and any conflict or unprofessional behavior will be directly addressed.
- Residents will be observed in their interactions with patients and their families, while ensuring an ethical, compassionate care.
- The documentations written by the resident will be evaluated by the attending faculty with regards to professional language, content and clear hand writing.
- Faculty and attending urologist will observe residents and their management of their own, and any signs of exhaustion or neglect will be addressed, ensuring that professional boundaries are kept.