



Kuwait Institute of Medical Specialization

Urology Residency Training Program



مستشفى الفروانية
FARWANIYA HOSPITAL

Farwaniya Hospital

Rotation goals and objectives

EDUCATIONAL PROGRAM

Residency training in urological surgery is a progressive educational experience that entails a complex interaction of learning through patient care. Residency training requires maintenance of a balance between the educational and the patient care responsibilities. In order to maintain the educational purpose of the training program residents are expected to attend all teaching conferences. Residents are excused from elective clinical responsibilities including presence in the operating room during scheduled educational conferences. Hands-on training is obtained during Open, Laparoscopic & Endourology. In the Minimally Invasive Surgery lab and the Clinical Skills Lab, residents receive instruction and practice that will carry over to their clinical work. Residents are assigned progressive responsibility for patient care by the supervising attending physician and the Program Director based on faculty evaluations of clinical competence including patient care, medical knowledge, evidence of practice based learning and improvement, interpersonal and communication skills, professionalism, and the resident's demonstrated awareness of the systems-based practice of medicine. Promotion and assignment to progressive patient care responsibilities requires satisfactory completion of the training objectives specific for each PGY-year as assessed by the faculty. **Each resident is assigned to contribute or participate in a research in each rotation.**

ABOUT FARWANIYA HOSPITAL:

Farwaniya hospital is a governmental secondary hospital (education) care center located in Sabah Al Naaser area. This hospital was opened in 1980, it serves about 1,011,426 patients. Farwaniya hospital has 945 bed capacities and has 3434 employees. The urology department consists of one male ward and quarter of female ward, ESWL room, UD room, 5 OT room per week, 18 OPD room/week, day case room for procedures such as diagnostic flexible cystoscopy, ascending and micturition cystogram room.

In 2017 the number of patients who were operated was 1,706 patients. 979 patients were operated as emergency cases, and 727 patients were operated electively. More than that, the number of patients was seen in the OPD 12,369 patients.

Because of the big capacity of Farwaniya hospital, it makes it a good place for teaching and for accommodation of a big number of residents.

The most important thing about Farwaniya hospital it has fulfilled the criteria of Accreditation Canada.

UROLOGY COMPETENCIES:

EDUCATIONAL PROGRAM:

Farwaniya hospital Center provides a learning environment for the care, treatment and follow up of urology patients. Surgical basic science, including fluids, electrolytes, wound healing and nutrition, will be emphasized. Clinically, residents will assess surgical pathology pre-operatively, develop clinical judgment on managing these issues, and learn operative skills to address the problem. Careful postoperative care and follow up will be emphasized.

Medical Knowledge

1- Residents from each level are expected to describe the components of a focused genitourinary history and physical examination in evaluating the following urologic problems:

- a. pain
- b. hematuria
- c. dysuria
- d. urinary incontinence
- e. flank masses
- f. penile lesions
- g. testicular masses
- h. prostate nodule or enlargement

2- Discuss the evaluation and management of the following urologic infections:

- a. Cystitis.
- b. Pyelonephritis.
- c. Prostatitis

3. Discuss the management of urologic trauma involving the following:

- a. penis/urethra
- b. scrotum
- c. bladder
- d. ureter
- e. kidney

4. Summarize the indications for diagnostic procedures/imaging in urology including:

- a. renal/bladder ultrasonography (U/S)
- b. CT urogram (CTU)

- c. retrograde urethrography (RUG)
 - d. cystography (VCUG)
 - e. transrectal ultrasound (TRUS)
 - f. nuclear renal scan (MAG-3, DMSA)
 - g. arteriography
 - h. MRI
5. Discuss the nature and indication for the following therapeutic procedures:
- a. bladder catheterization
 - b. use of Coudet-tip foley catheters and filiform/follower catheters
 - c. urethral meatotomy
 - d. suprapubic cystostomy (SP tube)
 - e. percutaneous nephrostomy (Perc tube) .
6. Discuss the following conditions including the embryology and management of the following:
- a. hypospadias
 - b. ureteropelvic junction obstruction (UPJ obstruction)
 - c. vesico-ureteral reflux (VUR)
 - d. hernia/hydrocele
 - e. myelomeningocele and its urologic sequelae
 - f. cryptorchidism (undescended testicle)
 - g. urethral stricture
7. Describe the types of incisions and exposure required for the following operations:
- a. nephrectomy
 - b. radical cystectomy
 - c. retropubic prostatectomy
 - d. simple vs radical orchiectomy
8. Discuss the management of renal, ureteral and bladder calculi.
9. Discuss common peri-operative complications and their management of the following operations:
- a. radical retropubic prostatectomy (RRP)
 - b. renal transplantation
 - c. radical cystectomy
 - d. bladder augmentation
 - e. transurethral resection of the prostate (TURP), and TURBT
 - f. laparoscopic vs open nephrectomy

Patient Care

Establish basic proficiency in providing pre-operative and post-operative care (writes appropriate pre-op and post-op orders for floor patients, handles nursing calls appropriately, and manages most routine post-operative care with minimal

intervention by supervisor). The resident will become familiar with guidelines for the evidence based management. Take an appropriate history to evaluate patients with urological issues to include:

- a. A complete history of present illness
- b. Presence of any co-morbidities
- c. A review of social and family history impacting the present problem
- d. A complete review of systems

Discuss treatment options, risks and potential complications of patients with urological issues. Assist in the performance of urological procedures.

Recognize and manage postoperative surgical complications, including wound infection, dehiscence and leaks, and lymphocele, seroma and hematoma formation.

Demonstrate skill in basic surgical techniques, including:

- Knot tying
- §Exposure and retraction
- §Knowledge of instrumentation
- §Incisions
- §Closure of incisions
- §Handling of graft material buccal mucosa
- §Establishing pneumoperitoneum
- §Handling of laparoscopic instruments
- §Handling of the laparoscopic camera

Coordinate pre and post-surgical operative care for patients in the urology rotation.

Assist in closure of surgical incisions and exhibit competency in suture technique.

Be able to apply and remove all types of dressings.

Make and close a variety of incisions and tie knots using sterile technique.

Residents in each level:

1. Should be able to differentiate between stable and emergent symptoms
2. independently obtain the above information and identify barriers to patient compliance and care
3. should be comfortable with performing and documenting a normal urogenital, rectal, and prostate exam
4. Should be able to characterize abnormal exam findings, including genital skin lesions, prostate enlargement or nodules, scrotal masses, etc.

5. become familiar with an initial approach to non-traumatic and traumatic urologic emergencies, including hematuria, priapism, renal colic, torsion, trauma, and urinary retention
6. the initial management of genitourinary cancers
7. Sexual dysfunction – erectile or ejaculatory dysfunction, loss of libido, etc.
8. Residents should develop an understanding of the pathophysiology, clinical presentation, natural history, and therapy for the following conditions:
 - Adrenal neoplasm
 - Balanitis
 - Benign prostatic hyperplasia
 - Chronic indwelling catheter
 - Cryptorchism and undescended testicles
 - Epididymitis, orchitis, prostatitis, urethritis
 - Erectile dysfunction
 - Hydrocele, spermatocele, varicocele
 - Hypogonadism
 - Hypospadias
 - Incontinence – stress, urge, overflow, mixed
 - Interstitial cystitis
 - Nephrolithiasis
 - Neurogenic bladder
 - Pelvic floor prolapse
 - Perineal trauma
 - Peyronie s disease
 - Phimosis
 - Priapism
 - Sexual dysfunction
 - Sexually transmitted diseases
 - Urethral stenosis
 - Urinary tract infection
 - Urinary tract obstruction
9. Will be able to sensitively and effectively counsel men with erectile dysfunction.
10. Know the embryology, anatomy and physiology of the genitourinary system
11. Understand the indications for PSA screening and be able to effectively counsel patients on the indications within the context of the current debate.
12. Need to understand the scientific basis for guidelines regarding urologic care and be able to discuss them with patients and families.

13. Residents should become familiar with biostatistics
14. Should understand basic statistical concepts found in urology literature, such as pretest probability, sensitivity, specificity, and number needed to treat
15. should be able to understand the impact of statistics on influencing the population health of patients with urologic issues
16. should develop skills in evaluating studies in published literature, through Journal Club and independent study
17. All residents should learn to function as part of a team, including the primary care physician, urologist, and clinic staff to optimize patient care taking a leadership role (senior level).
18. All residents should respond with positive changes to feedback from members of the health care team
19. Understand and perform suprapubic cystostomy tube placements in an emergency situation when urethral catheterization is not possible.

NARRATIVE DESCRIPTION FOR EACH YEAR OF TRAINING

PGY1

Interns who are stated to enter urology in their PGY1 year are given special rotations which are in disciplines germane to their development in urology. They also spend three months on the urology service during which time a special effort is made to introduce them to endoscopic and radiologic evaluation of urologic patients. Their attendance at the weekly and monthly didactic conferences and lectures for the Department of Urology is required when they are on the urology and non-urology rotation. They have no responsibilities regarding patient decision plan, however, they can participate and share their opinion under the care of their chiefs. They are expected to participate in cystoscopy and inguinal surgeries, distal ureteric stones under the supervision of their seniors.

PGY2

The PGY2 Year is the first half year in urology. The residents are assigned to spend time with the attending in the ambulatory care facilities as well as in the operating room. During the first urology year, residents are expected to acquire an ability to perform a comprehensive urologic history and physical examination and design appropriate radiographic and laboratory studies for diagnostic purposes. The residents will begin their acquisition of core skills utilized in ambulatory settings. This will include placement of catheters, understanding and performing endoscopy, and learning urodynamic testing. In addition to learning the acute and

chronic management of patients with urolithiasis, they will also learn the comprehensive approach to patients with genitourinary malignancies. Residents are expected to accurately log their procedures and to understand the basics of a Grand Rounds presentation. They are expected to handle cystoscopy and inguinal surgeries, distal ureteric stones under the supervision of their seniors.

PGY3

The PGY3 year is the first full year in urology. The residents are assigned to spend time with the attending in the ambulatory care facilities as well as in the operating room. It is during this time that they are given increasing responsibilities, particularly for more complex open urologic procedures in the operating room. They are also responsible for evaluating all of the correctional facility patients with urologic problems at the clinic and begin to provide teaching to the interns and PGY2 residents on the service. It is the goal of these eight months to provide a greater degree of independence for residents and to have them begin formulation of appropriate management of urologic problems. Continuity of care is assured because the resident spends their entire time with the attending in the office or in the operating room. They will also participate in surgical cases of increasing complexity with the attending staff. They should be able to run urological out patient with the presence of their chiefs or seniors.

PGY4

Residents will be given increasing responsibilities, particularly in the operating room. They will also be given increasing teaching responsibilities for the PGY2 and PGY3 level residents will be spent on the consult service where they have a major responsibility for the evaluation and presentation of the inpatient consultations, and in the emergency department.

PGY5 (Chief Resident)

There are substantial teaching responsibilities for the chief residents during these rotations. As the administrative chief resident, they are responsible for the call schedule. They work with faculty to plan the grand rounds presentations, indications and morbidity and mortality conferences and visiting professorships. They plan appropriate evaluation, management, and surgical procedures for these patients. As chief of the clinical service, they scrub on cases of highest complexity in the operating room and function as teaching residents for junior level residents to help in their acquisition of surgical skills. Individuals with a desire to pursue fellowship training will be encouraged to focus their clinical experience in those areas.

TEACHING METHODS:

Residents are encouraged to develop an individualized learning plan and are assigned a mentor to determine if those goals are being achieved. The mentor, along with program director/assistant program directors at the semi-annual review, guides residents to incorporate self-assessment and feedback of others as part of their learning portfolio. Residents also get departmental lectures on quality improvement methodology as well as online research tools available at the medical library. A monthly journal club is used to teach and promote use of evidence-based medicine principles. They also receive a departmental lecture on research methodology, and are encouraged to apply the principles of research methodology and statistical analysis to their own research projects. Case presentations by residents at Morbidity and Mortality conferences allow them to analyze practice, using evidence based medicine and quality improvement methods.

Assessment:

Weekly core-competency based evaluations are used by faculty to evaluate residents. Also collective faculty feedback is given monthly where all the attending collectively discuss individual resident strengths and weaknesses, and ways for improvement.

Systems Based Practice:

Residents must demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.

Residents are expected to:

- Work effectively in various health care delivery settings and systems, Coordinate patient care within the health care system.
- Incorporate considerations of cost awareness and risk-benefit analysis in patient care
- Use system resources to advocate for quality patient care and optimal patient care systems
- Work in interprofessional teams to enhance patient safety and improve patient care quality
- Participate in identifying systems errors and in implementing potential systems solutions

Teaching Methods:

Residents get departmental lectures of health care finance and cost-effective resource allocation, as well as on different health care delivery systems to help understand the financial underpinnings of various insurance models. They also participate in discussion of medical errors or “near-miss” events at general surgical conferences. There is a lecture on patient safety and medical liability for residents to better understand provision of quality patient care.

Assessment:

Monthly core-competency based evaluations are used by faculty to evaluate residents. Also collective faculty feedback is given semi-annually where all the attending collectively discuss individual resident strengths and weaknesses, and ways for improvement.

The CanMEDS objectives and principles

Medical Expert

Urology residents draw upon an evolving body of knowledge, their clinical skills, and their professional values. They collect and interpret information, make clinical decisions, and carry out diagnostic and therapeutic interventions. They do so within their scope of practice and with an understanding of the limits of their expertise. Their decision-making is informed by best practices and research evidence, and takes into account the patient’s circumstances and preferences as well as the availability of resources. Their clinical practice is up-to-date, ethical, and resource-efficient, and is conducted in collaboration with patients and their families, other health care professionals, and the community.

Urology residents should:

- Demonstrate a commitment to high-quality care of their patients ·
- Integrate the CanMEDS Intrinsic Roles into their practice of medicine ·
- Apply knowledge of the clinical and biomedical sciences relevant to their discipline ·
- Perform appropriately timed clinical assessments with recommendations that are presented in an organized manner ·
- Carry out professional duties in the face of multiple, competing demands ·
- Recognize and respond to the complexity, uncertainty, and ambiguity inherent in medical practice ·
- Prioritize issues to be addressed in a patient encounter ·

Elicit a history, perform a physical exam, select appropriate investigations, and interpret their results for the purpose of diagnosis and management, disease prevention, and health promotion .
Establish goals of care in collaboration with patients and their families .
Establish a patient-centred management plan .
Determine the most appropriate procedures or therapies .
Obtain and document informed consent, explaining the risks and benefits of each procedure, and the rationale for, a proposed procedure or therapy .
Prioritize a procedure or therapy, taking into account clinical urgency and available resources .
Perform a procedure in a skilful and safe manner .
Implement a patient-centred care plan that supports ongoing care, follow-up on investigations, response to treatment, and further consultation .
Recognize and respond to harm from health care delivery, including patient safety incidents .
Adopt strategies that promote patient safety and address human and system factors .

Communicator:

- Develop interpersonal and communication (verbal and writing) skills that will allow effective exchange of information with urologic patients, their families and other health care professionals
- Develop effective listening skills and be able to elicit and provide information using appropriate nonverbal, explanatory and patient interview skills.
- Formulate and write coherent and accurate notes in the medical record
- Write clear, concise and comprehensible manuscripts for publication in the urologic literature.
- Prepare and deliver oral or case presentations in a thoughtful, organized and coherent manner.
- Work effectively with others (urologic residents and faculty) as a member or leader of the Urology health care team.
- Interact and communicate effectively with nurses and other health professionals and hospital staff.

Teaching Methods:

1. Clinical performance with direct observation

2. Operating room with observed performance
3. Daily supervised care of surgical patients
4. Presentations in clinic
5. Rotation specific conferences
6. Supervised on-call experiences

Evaluation Methods:

1. Global faculty evaluation
2. 360° evaluation
3. Observed clinical examination
4. Patient surveys
5. Teaching rounds
6. Biannual review with residency program director

Professional:

Residents must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles.

They must demonstrate compassion, integrity and respect for others, including accountability to patients and society, and professional commitment to excellence.

Adherence to ethical principles by practicing patient-centered care that encompasses confidentiality, respect and autonomy via appropriate informed consent and shared decision making. Cultural competence, by being sensitive and responsive to a diverse patient population as well as colleagues, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation.

Teaching Methods:

- Professionalism is taught primarily during clinical experiences where residents observe and adopt the behavior of senior residents and faculty by assigning mentors who are positive role-models
- To be a member of the hospital Ethics committee and risk management team giving an institutional lecture to the incoming intern class on cultural sensitivity and diversity.

Assessment:

A global 360 degree multi-rater evaluation is used to assess resident performance with respect to professionalism and interpersonal and communication skills. These are filled out anonymously by health care professionals, including nurses, and by their colleagues. The residents are also assessed at semiannual meetings, where they get collective faculty assessment and feedback about professionalism and interpersonal and communication skills, in addition to other competencies.

Scholar:

- Develop, implement, monitor, and revise a personal learning plan to enhance professional practice
- Identify opportunities for learning and improvement by regularly reflecting on and assessing their performance using various internal and external data sources
- Engage in collaborative learning to continuously improve personal practice and contribute to collective improvements in practice
- Recognize the influence of role-modelling and the impact of the formal, informal, and hidden curriculum on learners
- Promote a safe learning environment
- Ensure patient safety is maintained when learners are involved
- Plan and deliver a learning activity
- Provide feedback to enhance learning and performance
- Identify, select, and navigate pre-appraised resources
- Critically evaluate the integrity, reliability, and applicability of health-related research and literature
- Integrate evidence into decision-making in their practice
- Demonstrate an understanding of the scientific principles of research and scholarly inquiry and the role of research evidence in health care
- Identify ethical principles for research and incorporate them into obtaining informed consent, considering potential harms and benefits, and considering vulnerable populations
- Contribute to the work of a research program
- Pose questions amenable to scholarly inquiry and select appropriate methods to address them
- Summarize and communicate to professional and lay audiences, including patients and their families, the findings of relevant research and scholarly inquiry

Communicator:

Residents must demonstrate interpersonal and communication skills that result in the effective exchange of information and teaming with patients, their families and professional associates. They must demonstrate that they can:

- Communicate effectively with patients and families across a broad range of socioeconomic and cultural backgrounds
- Communicate effectively with physicians, other health professionals, and health related agencies
- Work effectively as a member or leader of a health care team
- Maintain comprehensive, timely and legible medical records

Teaching Methods:

- Interpersonal and communication skills are taught primarily during clinical experiences where residents observe the faculty and senior residents, and participate in, delivering bad news, holding family meetings to discuss ongoing care, educating patients and their families, and resolving conflict.
- Also daily meetings of the junior residents with social workers and case managers, as well as conversations with consultants, refine the skill communication with other health care professionals to provide better patient care.
- Communication with colleagues is encouraged by having a standardized method of hand-off between junior and senior residents to help reduce medical errors and promote continuity of care.
- The junior residents receive ongoing lectures from the chief residents to develop and refine the skill of seamless hand-off of patient care. The residents also get a lecture at the Kuwait Institute for Medical Specializations (KIMS) about case management and documentation.
- Scholarly communication is taught by having residents present cases and literature search at Morbidity and Mortality conferences. These conferences help develop effective lecture and teaching skills, as they communicate effectively to their colleagues by presenting cases, associated complications and data, as well as teach the medical students.
- The residents are also given a talk on research methodology and opportunities, and are encouraged to present their scholarly work via presentations, abstracts, or publications.

Assessment:

- A global 360 degree multi-rater evaluation is used to assess resident performance with respect to professionalism and interpersonal and communication skills. These are filled out anonymously by health care professionals, including nurses, and by their colleagues.
- The residents are also assessed at semiannual meetings, where they get collective faculty assessment and feedback about professionalism and interpersonal and communication skills, in addition to other competencies.

Scholar:

Residents acquire scholarly abilities to enhance practice and advance health care. Residents pursue excellence by continually evaluating the processes and outcomes of their daily work, sharing and comparing their work with that of others, and actively seeking feedback in the interest of quality and patient safety. Using multiple ways of learning, they strive to meet the needs of individual patients and their families and of the health care system

Residents strive to master their domains of skills and to share their knowledge. As lifelong learners, they implement a planned approach to learning in order to improve in each CanMEDS Role.

They recognize the need to continually learn and to model the practice of lifelong learning for others. As seniors they facilitate, individually and through teams, the education of students and younger colleague in training, colleagues, co-workers, the public, and others

Identify opportunities for learning and improvement by regularly reflecting on and assessing their performance using various internal and external data sources. Engage in collaborative learning to continuously improve personal practice and contribute to collective improvements in practice.

Ensure patient safety is maintained when learners are involved. Plan and deliver a learning activity. Provide feedback to enhance learning and performance. Identify, select, and navigate pre-appraised resources. Integrate evidence into decision-making in their practice

Collaborator

Urology resident should be essential for safe, high-quality, patient-centred care, and involves patients and their families, physicians and other colleagues in the health care professions, community partners, and health system stakeholders.

A resident requires relationships based in trust, respect, and shared decision-making among a variety of individuals with complementary skills in multiple settings across the continuum of care. They have to share their knowledge, perspectives, and responsibilities, and a willingness to learn together. This requires understanding the roles of others, pursuing common goals and outcomes, and managing differences.

Leader

As a societal expectation, residents demonstrate collaborative leadership and management within the health care system. At a system level, physicians and residents contribute to the development and delivery of continuously improving health care and engage with others in working toward this goal. Resident integrates their personal lives with their clinical, administrative, scholarly, and teaching and learning responsibilities. They function as individual care providers, as members of teams, and as participants and leaders in the health care system locally, regionally, nationally, and globally.

Health Advocate

Residents are accountable to society and recognize their duty to contribute to efforts to improve the health and well-being of their patients, their communities, and the broader populations they serve. Physicians and residents possess medical knowledge and abilities that provide unique perspectives on health.

Residents should be involved in contributing their knowledge of the determinants of health to positively influence the health of the patients, communities, or populations they serve. Residents gather information and perceptions about issues, working with patients and their families to develop an understanding of needs and potential mechanisms to address these needs. Residents support patients, communities, or populations to call for change, and they speak on behalf of others when needed. Residents increase awareness about important health issues at the patient, community, or population level.