Objectives for the Principles of Surgery (POS) exam will be provided by the Department of Surgery Education Office.

For the up to date Objectives of Surgical Foundations Training, please visit the Royal College of Physicians and Surgeons of Canada website at: http://www.royalcollege.ca
Select the tab: Credentials, Examinations & Accreditation
Select: Information by Specialty from the dropdown menu
Under the Section Information by Special Programs select Surgical Foundations from the dropdown menu

LEARNING OBJECTIVES DURING CORE ROTATIONS IN GENERAL SURGERY

The following objectives should be achieved by the completion of the Core Surgery block:

1. To gain familiarity with the initial triage assessment and management of the multi-system trauma victim.

2. To be able to identify the patient with an acute abdomen and to prescribe appropriate investigations and treatment.

3. To have mastered the following technical/surgical skills:

   a) Opening of the abdomen
   b) Lysis of adhesions
   c) Fascial closure of the abdomen
   d) Insertion of insufflation cannula for laparoscopic procedures (direct and Hasson Techniques)
   e) Bowel anastomotic techniques (hand-sewn and stapled)
   f) Suture ligature of a bleeding vessel
   g) Subcutaneous skin closure
   h) Insertion of nasogastric tube
   i) Placement of central venous line
   j) Safe application of electrosurgery in open and laparoscopic procedures

To be familiar with:

   k) Techniques of inguinal hernia repair
   l) Methods of laparoscopic surgical dissection
   m) Techniques of creating abdominal wall stomas
   n) Advantages and limitations of the various suture materials
YEAR SPECIFIC OBJECTIVES - UROLOGY

The general training objectives for Urology Residents in training across Canada have been outlined in a document formulated by the Specialty and Training Committee of the Canadian Urological Association. These objectives elaborate in detail the expected knowledge and technical acumen required to achieve a level of proficiency commensurate with successful completion of the Royal College Examinations and to be capable of competence in clinical practice.

The following objectives have been developed to assist trainees in reviewing their progress as they proceed though each rotation and year of clinical urology training at UWO. In addition, specific study objectives have been put together to help residents formulate a study schedule.

These specific objectives should be reviewed in conjunction with the more broad CUA training objectives.

YEAR SPECIFIC OBJECTIVES - UROLOGY PGY 3 (OR JUNIOR RESIDENT)

CLINICAL

The junior resident serves as an integral part of the hospital-based team. Residents at this level work in collaboration with the Senior/Chief residents and Consultants. Junior residents should be involved in all aspects of patient management through attendance in the outpatient clinics, Emergency Department, inpatient clinical teaching units (CTU) and operating rooms. The junior resident may be the first one called to see inpatient consultations. The resident should demonstrate the ability to manage urologic emergencies such as:

1. Urinary retention
2. Acute renal colic
3. The difficult catheterization
4. Acute scrotal pain
5. Priapism
6. Renal Failure

PGY3 residents should be able to demonstrate competent handling of uncomplicated pre-and post-operative care.

TECHNICAL SKILLS

At the completion of the PGY3 year, technical expertise in endoscopic techniques and minor open surgical procedures should be acquired. The PGY3 resident will be expected to perform simple endoscopic and minor open surgical procedures with consultant supervision. The resident should also be present to observe and assist with the more complex procedures. If the resident is scheduled to be in clinic on a particular day, he/she has the permission to leave for a portion of the clinic so as to obtain exposure to various PGY-level specific cases in the OR.

The following is a list of procedures that should be mastered in the PGY3 year:

1. Flexible cystoscopy and ureteral stent insertion/removal
2. Rigid cystoscopy +/- bladder biopsy
3. Retrograde pyelography
4. Cystolitholapaxy
5. Use of filliforms and followers
6. Transrectal ultrasound biopsy of the prostate
7. Circumcision
8. Hydrocelectomy/spermatocelectomy
9. Orchidectomy
10. Ability to open and close abdominal and flank incisions

TEACHING

PGY3 residents are expected to assist in the teaching of clinical clerks that rotate through the service, and will be assigned clerks to mentor and teach. PGY3 residents are responsible for preparing and presenting several basic science or clinical topics to the other residents supervised by the one of the consultant staff. Residents are expected to confer with the consultant staff assigned to supervise the topic well in advance of the seminar date to review the material to be presented.

RESEARCH

All residents in the clinical urology years are expected to undertake a research project each year that will be presented at the annual Residents’ Research Day. It is hoped that these projects will also be submitted for presentation at national or international meetings. If a resident’s paper is accepted, the resident is entitled to attend the meeting to present the work with expenses covered by the Division of Urology (to a maximum of $2000 per annum – see travel policy).

SPONSORED MEETINGS

PGY3 residents should plan to attend the AUA-sponsored Basic Science Review Course in Charlottesville, Virginia which held in June each year.

YEAR SPECIFIC OBJECTIVES - UROLOGY PGY 4 (SENIOR RESIDENT)

CLINICAL

PGY4 residents are given greater independence in the clinic and in-patient settings. Clinical competence in all areas of urology should be demonstrated by the completion of this year of training. The resident should be able to describe and carry out appropriate management of more complex urological conditions. Senior residents are expected to attend outpatient clinics when not scheduled to be in the OR. The senior resident will often see the inpatient consultations initially or assist the junior resident in this assessment. The PGY4 resident may, from time to time, be in charge of the CTU in the absence of the Chief Resident.

TECHNICAL SKILLS

Further consolidation of endoscopic and minor surgical skills learned in the PGY 3 year should occur this year. As well the PGY 4 resident will be expected to gain experience in more major endoscopic and open surgical techniques. The following surgical procedures should be performed by the end of this year of training with increasing competence:
1. Transurethral prostatectomy
2. Transurethral resection of bladder tumor
3. Percutaneous nephrostomy tract insertion
4. Percutaneous nephrolithotomy
5. Ureteroscopy (rigid and flexible) with laser/EHL lithotripsy
6. Visual internal urethrotomy
7. Meatal repair of glanular hyposdias
8. Orchiopexy
9. Vaso-vasostomy
10. Vasectomy
11. Insertion of penile prosthesis
12. Surgical approaches to Peyronie’s Disease
13. Varicocelectomy
14. Endoscopic bladder neck suspension procedures
15. Pyeloplasty
16. Ureteral reimplantation
17. Renal transplantation
18. Radical nephrectomy
19. Partial nephrectomy
20. Radical prostatectomy
21. Radical cystectomy and urinary diversion procedures
22. Retroperitoneal lymph node dissection
23. Laparoscopic/robotic surgery (15, 16 and 18-22)

**TEACHING**

The senior residents play an important role in the teaching of the more junior house staff. The senior resident should discuss all in patient and emergency room consults with more junior house staff prior to contacting faculty. Senior residents are responsible for preparation and presentation of several clinical topics for the Seminar Series.

**RESEARCH**

The senior residents will be expected to continue research initiated in the year before or begin a new project. Results will be presented at the annual Residents’ Research Day. It is expected, as well, that these projects will be presented at national and international meetings and culminate in publication of the work.

**SPONSORED MEETINGS**

The trainee should plan to attend either the Canadian Urological Association or the American Urological Association annual meetings. Should the resident have an abstract accepted at another meeting, the resident is entitled to attend that meeting as well to present the paper (and, if annual travel allowable has reached the maximum, they are to seek financial request from their research supervisor, or apply for the Division of Urology Travel Award, well in advance of the meeting).
CAREER PLANNING

By the completion of the PGY4 year, the resident should have initiated plans in preparation for completion of his/her residency training. Fellowship training in particular may require considerable time to organize, especially if positions in the United States are being considered.

YEAR SPECIFIC OBJECTIVES - UROLOGY PGY5 (CHIEF RESIDENT)

CLINICAL

The chief resident is in charge of the inpatient CTU. The PGY5 resident is responsible for rounding on the inpatients each morning with the more junior house staff members. The chief resident should be aware of all inpatient and emergency room consultations and should review the management plan with the senior and junior resident. The chief resident should spend the majority of his/her time in the operating room. Ambulatory care exposure, however, should also be a part of the chief resident year experience, especially in the spring of their final year as they prepare for the Royal College exam.

TECHNICAL SKILLS

The performance of all major urological procedures is mandatory. The chief resident should be competent to complete all open and endoscopic urologic procedures from start to finish. The chief resident is not expected to be in the OR for every case. The chief resident is not responsible for procedures in which competence has been achieved and the more minor procedures should be delegated to more junior residents.

TEACHING

The final year trainee will assist in the preparation and case selection for Grand Rounds, Radiology and Pathology Rounds. The chief resident should function as a role model for the more junior residents. The chief resident may be involved in the teaching of minor surgical skills to the more junior residents and Clinical Clerks.

RESEARCH

For those residents involved in ongoing projects over the course of their training it is hoped this research will culminate in acceptance of the work at a major urological meeting and subsequent publication. Chief residents are expected to prepare a research presentation for the annual Urology Residents’ Research Day.

SPONSORED MEETINGS

The chief resident is encouraged to attend either the CUA or AUA annual meetings. If attending the CUA, the Canadian Senior Urology Residents (CSUR) meeting is also recommended.
ST. JOSEPH’S HOSPITAL:

The Urology service at St. Joseph’s Hospital (St. Joe’s) provides comprehensive training for residents of all levels of urology training. Residents are exposed to the most general urologic conditions in the outpatient clinic, Emergency Department and in the operating rooms, with the exception of major trauma, complex pediatric surgery and transplantation. During the St. Joe’s rotation subspecialty expertise should be gained in the following disciplines:

**ANDROLOGY (ERECTILE DYSFUNCTION AND INFERTILITY)**
Residents will acquire and be able to demonstrate knowledge of the pathophysiology, investigation and medical/surgical management of erectile dysfunction and male infertility. This knowledge is expected to be obtained through individual study, attendance at outpatient clinics and the operating room.

**URINARY INCONTINENCE/FEMALE UROLOGY/URODYNAMICS**
In-depth knowledge of the pathophysiology of urinary incontinence in men and women and the appropriate investigations and treatment should be acquired. An understanding of the practical aspects of performing urodynamics should be achieved through attendance of urodynamic procedures with the urodynamic nursing staff. Awareness of common female urologic problems should be achieved through regular attendance in the outpatient clinic and operating room.

**ENDOUROLOGY/ESWL/STONE DISEASE**
Residents should achieve in-depth knowledge in the pathophysiology, investigation including metabolic assessment and surgical management of urinary stone disease. Residents should develop the skills of ureteroscopy, percutaneous nephrostomy insertion and percutaneous stone removal. Residents should be knowledgeable of the various techniques of both intracorporeal and extracorporeal shock wave lithotripsy including the mechanisms of action of each and potential complications associated with their use. Although not required, resident participation in ESWL cases is encouraged. By attending 20 cases with a consultant urologist the resident can become lithotripsy certified which may be of benefit in his/her future practice.

**PROSTATE DISORDERS (BPH, PROSTATE CANCER)**
Residents should acquire comprehensive knowledge of the pathophysiology, investigation and medical/surgical treatment of BPH. An understanding of the role of PSA in prostate cancer screening, the investigation of men with an abnormal PSA and/or DRE and the technique of TRUS biopsy of the prostate should be acquired. An insight into the management of prostate cancer stage for stage should be attained. This knowledge is expected to be obtained through individual study, attendance at outpatient clinics and the operating room.

LONDON HEALTH SCIENCES CENTRE (LHSC):

The Urology service at LHSC provides comprehensive training for residents of all levels of urology training. The bulk of the residents’ learning experience takes place at the Victoria Hospital Campus which houses the in-patient adult service, the pediatric surgical inpatient unit and the urology operating rooms. Transplantation activities take place at the University Hospital Campus. During the LHSC rotation subspecialty expertise should be gained in the following disciplines:
UROLOGIC ONCOLOGY
It is expected that residents will acquire in-depth experience in all aspects of urologic oncology. The theories of urologic tumorigenesis, cancer biology, pertinent investigations and medical/surgical management of all urologic malignancies should be learned. An understanding of the mechanisms of action and indications for radiotherapy and chemotherapy in the treatment of urologic tumors should be obtained. These objectives will be achieved through regular attendance in the outpatient clinics and operating room.

TRANSPLANTATION
The objective of this rotation is to expose residents to the medical and surgical aspects of renal transplantation. Residents should develop an appreciation of the work up of the patient being considered for a renal transplant. The procedures involved in cadaveric and living related donor selection should be understood. The principles and techniques of organ retrieval and preservation should be learned. Residents should be involved in both cadaveric and living related transplant surgical procedures. The post-operative management of renal transplant patient as well as an appreciation of the principles of immunosuppression and the mechanisms of action of the major immunosuppressive agents must be understood. These objectives will be fulfilled through individual study, attendance in the outpatient clinic, operating room and in the post-operative follow up of patients.

TRAUMA
LHSC serves as the regional trauma referral centre. Residents will receive the bulk of their trauma exposure at the Victoria Hospital site. Residents should acquire in-depth knowledge of the approach to the management of the patient with multisystem trauma as well as the patient with injury isolated to the GU system. Techniques involved in stabilizing patients, appropriate investigations and the surgical management of urologic injuries will be learned. Residents will achieve these objectives through personal study, through evaluation of patients in the emergency department and attendance in the operating room.

PEDIATRIC UROLOGY
The majority of Pediatric Urology is carried out at WC. Residents will be exposed to a large volume of Pediatric Urology through attendance at Dr. Dave’s outpatient clinics and OR days. Additional ambulatory Pediatric Urology can also be obtained by participating in satellite clinics attended by Dr. Dave. Residents should acquire comprehensive knowledge of all common urologic conditions afflicting children including: enuresis, urinary tract infection, vesico-ureteral reflux, ureteropelvic junction obstruction, cryptorchidism and hypospadias.