Curriculum

FNB Fellowship

MINIMAL ACCESS UROLOGY

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I. INTRODUCTION

In the present era of urology, except endourology most of the surgeries are still being practiced as open surgery. In view of morbidly associated with open surgery, laparoscopic /robotic urology can be an answer to an affordable and standardized urological care.

The goal of the Minimal access urology Fellowship is to provide the fellow with the necessary training and education to be comfortable in the performance of a wide variety of minimally invasive operations in the field of urology.

The activities of the fellow will be a blend of clinical experience, research, and teaching responsibilities for medical students. Clinical experience is to include both operative time and clinic hours. Prior fellows have performed both basic science research, as well as clinical research. Topics have varied from surgical education to virtual reality simulation. Teaching responsibilities will range from formal Grand Rounds presentations for the Department of Surgery to informal clinical instruction in the operating room and surgical clinic.

II. AIMS & OBJECTIVES OF FELLOWSHIP

1. To produce competent specialists in Minimal access urology – who can provide highest quality comprehensive care.
2. To give wide exposure in the field of Minimal access urology.
3. To understand in depth knowledge of various aspects of Minimal access urology.
4. To train, to carry out advanced laparoscopic/robotic surgeries independently.

III. TEACHING AND TRAINING

1. THE ACTIVITIES WILL BE DIVIDED AS FOLLOWS:

a. Clinical 60%
b. Research 20%
c. Teaching/Education 20%

2. PATIENT CARE:

Fellows must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. Fellows are expected to perform the following:

a. Communicate effectively and demonstrate caring and respectful behaviours when interacting with patients and their families
b. Gather essential and accurate information about their patients
c. Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment
d. Develop and carry out patient management plans
e. Counsel and educate patients and their families
f. Use information technology to support patient care decision and patient
g. Perform competently all medical and invasive procedures considered essential for the area of practice
h. Provide health care services aimed at preventing health problems or maintaining health
i. Work with health care professionals, including those from other disciplines, to provide patient-focused care

3. MEDICAL KNOWLEDGE:

Fellows must demonstrate knowledge about established and evolving biomedical, clinical, and cognitive (epidemiological and socio-behavioral) sciences and the application of this knowledge to patient care. Fellows are expected to perform the following:

a. Demonstrate an investigatory and analytic thinking approach to clinical situations

b. Know and apply the basic and clinically supportive sciences which are appropriate to their discipline.

4. PRACTICE-BASED LEARNING AND IMPROVEMENT:

Fellows must be able to investigate and evaluate their patient care practices, appraise and assimilate scientific evidence, and improve their patient care practices. Fellows are expected to perform the following:

a. Analyze practice experience and perform practice-based improvement activities using a systematic methodology
b. Locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems
c. Obtain and use information about their population of patients and the larger population from their patients are drawn
d. Apply knowledge of study designs and statistical methods to the appraisal of clinical studies and of information on diagnostic and therapeutic effectiveness

e. Use information technology to manage information, access on-line medical information, and supplement their own education
f. Facilitate the learning of students and other health professionals

5. INTERPERSONAL AND COMMUNICATION SKILLS:

Fellows must be able to demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their patients' families, and professional associates. Fellows are expected to perform the following:

a. Create and sustain a therapeutic and ethically sound relationship with patients
b. Use effective listening skills and elicit and provide information using effective nonverbal, explanatory questioning, and writing skills
c. Work effectively with others as a member or leader of a health care team or other professional group.

6. PROFESSIONALISM:

Fellows must demonstrate a commitment to carrying out professional responsibilities and sensitivity to a diverse patient population. Fellows are expected to perform the following:

a. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and families that supercedes self-interest; accountability to patients, society, and the profession; and a commitment to excellence and ongoing professional development
b. Demonstrate a commitment to ethical principles pertaining to provision or withholding of clinical treatment, confidentiality of patient information, informed consent, and business practices
c. Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities.

7. SYSTEMS-BASED PRACTICE:

Fellows must demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value. Fellows are expected to perform the following:

a. Understand how their patient care and other professional practices affect other health care professionals, the health care organization, and the larger society and how these elements of the system affect their own practice

b. Know how types of medical practice and delivery systems differ from one another, including methods of controlling health care costs and allocating resources
c. Practice cost-effective health care and resource allocation that does not compromise the quality of care
d. Advocate for quality patient care and assist patients in dealing with system complexities
e. Know how to partner with health care managers and health care providers to assess, coordinate, improve health care and know how these activities can affect system performance.

8. ORGANIZATION OF TRAINING:

a. Training programs in MIS should be in a multidisciplinary centre of minimally invasive surgery and should be organized by a qualified, accredited specialist in MIS.
b. The Centre should use the guidelines and protocols by national professional bodies and are reviewed at regular intervals.

9. THE MEANS OF TRAINING:

a. The trainees should participate in all relevant activities of the training unit such as the care of Out -Patients and In -Patients, on call duties during both day and night, also participating in educational activities, including the teaching of other health professionals. Participation in audit and clinical or basic research is essential.

b. The duration of MAU training should cover the clinical and research aspects of the following areas:
   - Good text books on MAU written by leading and experienced Authors
   - Educational tools such as Video tapes /CD ROMS
   - Simulators for Endo – Training
   - Box trainers to master the skills
   - Endo trainer rooms with adequate space and good air-conditioning facility to work long hours in the simulators so the trainee can avoid fatigue.
   - Endo-cameras mounted on a special stands with the monitors
   - Special hand instruments to learn the hand and eye co-ordination
   - To learn depth perception
   - To learn tactile sensations

c. Schedule:

Clinical	OR Days	4 Days/ week
	Dry lab (Lap Mentor)	3 days / week (at least half an hour before OT, endo suturing)
	OPD	2 Days/ week
Academics	Symposium	One in 15 days
	Journal Club	once a week
	Recent Advances	once a week
	Audit	once a month
	Instrument care and Sterilization	once a week

d. Trouble Shooting: Laparoscopic procedures are inherently complex. Many things can go wrong. The surgeon must learn sufficiently about all equipment's which can trouble shoot and to solve it. Common problems to be learnt are:
   - Cause of Poor insufflations
   - Reason for excessive pressure for insufflation
   - Reasons for inadequate lighting
   - Reasons for too bright lighting
   - Reasons for loss of picture on monitors
   - Reasons for poor quality pictures /fogging / haze
   - Reasons for flickering electrical interference
   - Reasons for inadequate cauterization/inadequate irrigation and suction

e. Administration: Setting up the laparoscopic/robotic surgery unit, quality control and assurance, creating protocol for management and organizing and coordinating of clinical meetings.

   The course will ensure training in all three domains of learning i.e.
   - Cognitive (Knowledge)
   - Affective (Behavior, communications skills towards the patients)
   - Psychomotor (Development of skills)

IV. SYLLABUS

1. The syllabus consists of:

a. Upper tract Laparoscopy:

- Laparoscopic / Robotic cyst deroofing
- Laparoscopic / Robotic ureterolithotomy
- Laparoscopic / Robotic Pyeloplasty
- Laparoscopic / Robotic Donor Nephrectomy
- Laparoscopic/ Robotic Nephroureterectomy
- Laparoscopic/ Robotic Simple Nephrectomy
- Laparoscopic/ Robotic Radical Nephrectomy
- Laparoscopic/ Robotic Partial Nephrectomy
- Laparoscopic/ Robotic Adrenalectomy
- Laparoscopic/ Robotic Nephrolysis
- Laparoscopic/ Robotic Ureterolysis

b. Lower tract Laparoscopy:

- Laparoscopic / Robotic Ureteric Reimplantation
- Laparoscopic / Robotic VVF repair
- Laparoscopic / Robotic Partial cystectomy
- Laparoscopic / Robotic Radical cystectomy
- Laparoscopic / Robotic Radical prostatectomy
- Laparoscopic / Robotic Boari Flap
- Laparoscopic / Robotic Augmentation Ureterocystoplasty
- Laparoscopic / Robotic Pelvic Lymphnode Dissection
- Laparoscopic / Robotic Seminal Vesical cyst Excisison

c. Miscellaneous:

- Diagnostic Laparoscopy
- Laparoscopic / Robotic Orchiopexy
- Laparoscopic Assisted PCNL

2. JOB DESCRIPTION:

a. Attending outpatient clinic to do pre – op evaluation.

b. Attending in follow up outpatient clinic – dealing with recently performed surgeries.
c. Taking ward rounds, seeing patients and bedside case discussion.
d. Managing Postoperative complications.
e. Coming to operation Theatre – assisting & performing various surgeries.
f. Assisting emergency procedures if required.
g. Coordinating with research team about data analysis.
h. Conducting prospective / retrospective studies.
i. Participation in weekly morbidity/mortality meet.
j. Paper presentation in various conferences & publications in index journals.

V. LOG BOOK

A candidate shall maintain a log book of operations (assisted / performed) during the training period, certified by the concerned post graduate teacher / Head of the department / senior consultant.

This log book shall be made available to the board of examiners for their perusal at the time of the final examination.
The log book should show evidence that the before mentioned subjects were covered (with dates and the name of teacher(s) The candidate will maintain the record of all academic activities undertaken by him/her in log book.

1. Personal profile of the candidate
2. Educational qualification/Professional data
3. Record of case histories
4. Procedures learnt
5. Record of case Demonstration/Presentations
6. Every candidate, at the time of practical examination, will be required to produce performance record (log book) containing details of the work done by him/her during the entire period of training as per requirements of the log book. It should be duly certified by the supervisor as work done by the candidate and countersigned by the administrative Head of the Institution.
7. In the absence of production of log book, the result will not be declared

VI. OTHER RECOMMENDATIONS

1. OPERATIVE EXPERIENCE:

The Fellowship operates with a mentor system. The Fellow will act as the assistant surgeon early during the training period. As the Fellow's skill increases, she or he will graduate to the role of Primary Surgeon under supervision, and assist the Residents in performing procedures.

At the end of Fellowship Programme, fellow must have experienced:

Checklist:

Sr No.	Procedure	Numbers
1.	Port insertion	25
2.	Colon mobilisation	20
3.	Hilar dissection	15
4.	Intra corporeal endo suturing	10
5.	As a first assistant surgeon	30
Fellow must perform following surgeries independently:		
6.	Laparoscopic / Robotic Simple Nephrectomy	3-5
7.	Laparoscopic / Robotic Radical Nephrectomy	3-5
8.	Laparoscopic / Robotic Adrenalectomy	1
9.	Laparoscopic / Robotic VVF Repair	2
10.	Laparoscopic / Robotic Donor Nephrectomy	1
11.	Laparoscopic / Robotic Nephroureterectomy	1
12.	Diagnostic Laparoscopy	2
13.	Laparoscopic / Robotic Pyeloplasty	3-5
14.	Laparoscopic / Robotic Radical Prostatectomy	1

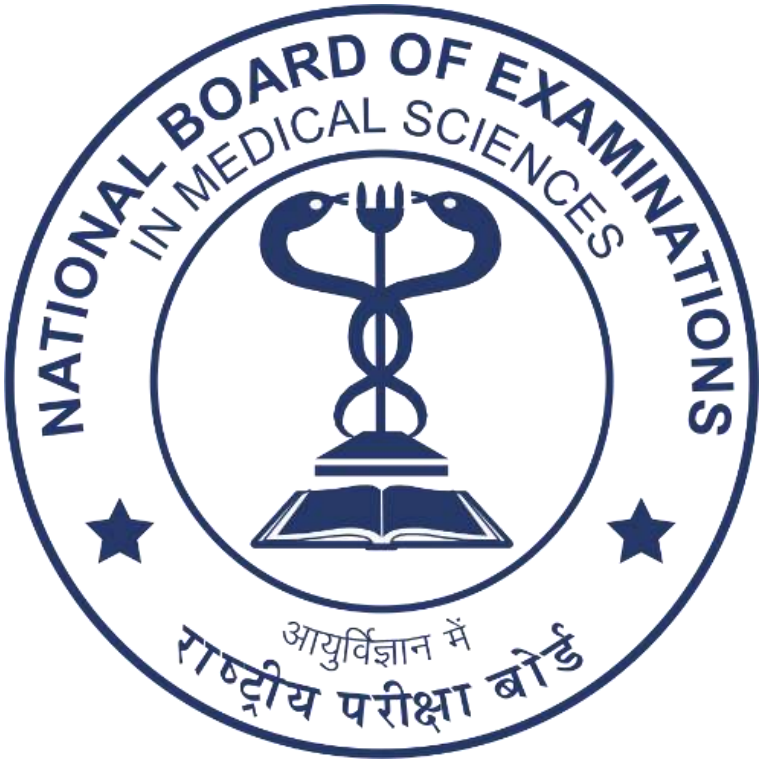
2. THE ACADEMIC ACTIVITIES OF THE PROGRAM IN THE HOSPITAL SHOULD INCLUDE:

a. **Publication Requirement:** Fellow are required to have 1 article submitted to the index journal and one article accepted for publication or publised in any journal from work they performed during fellowship with fellow as the first author, to receice certification.

b. Other:

- Regular academic sessions.
- Case discussion and seminars.

- Paper presentation.
- Audit/Biostatistics
- Conferences/CME's/Live workshops.
- Fine tuning skills in the purpose built animal (wet) laboratory.
- The programme is organized to have maximum "Hands-on" practice sessions in the "Purpose Built" animal laboratory.
- Lecture hall for CME, conference and live workshop transmission with good acoustics.
- Medico legal aspects relevant to the discipline
- Health Policy issues as may be applicable to the discipline



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