

Curriculum

FNB Fellowship



Paediatric Urology

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I. INTRODUCTION

Definition of The Subspecialty:

Paediatric Urology is currently being practiced largely by Paediatric Surgeons in India, who deal with surgical children in general.

It must be recognized, that, while the magnitude of clinical Paediatric Urology workload is high, proportionately, trained Paediatric Urologists or Paediatric Surgeons are not sufficient in numbers.

- i. The specialists Paediatric Surgeons & Paediatric Urologists deal with recognition, prevention, treatment (surgical and non-surgical), and rehabilitation of congenital and acquired diseases, malformations and functional problems of the genitourinary system.
- ii. Paediatric Urology, like Paediatric Surgery, encompasses the surgical care of the growing individual: premature infant, new-born, child and adolescent.
- iii. While institutions & hospitals should consider opening of ADOLESCENT CARE units/ divisions- patients over 18 years old with special needs and/or rare diseases where paediatric surgical expertise is required could/should be treated in strict cooperation with paediatric urologists.
- iv. The transition to adult specialists should be guaranteed (e.g. urologist, endocrinologist, surgeon etc.). It can only then encompass the promotion of good genitourinary system health.

II. SCHEDULE OF TRAINING

Minimum duration of training is 24 months' fellowship in an accredited Paediatric Urology training centre. It is strongly recommended to prolong the training in the case of temporary absence to fulfil the 24 months of the training length. The trainee can apply for a fellowship in Paediatric Urology when becoming a surgical specialist who has certification in Urology or in Paediatric Surgery from NMC or NBEMS.

It is strongly recommended that a fellow takes part in theoretical and practical courses on paediatric urology as per the general format recommended for Fellowship Programmes by NBEMS. (e.g. Participation in at least 2 scientific activities, including one international is obligatory. At the end of the training a fellow should provide evidence of at least 20 CME credits. Recertification must be done every 5 years. In this period 250 CME credits must be collected with at least 125 out of 250 related to paediatric urology. Application for recertification must be sent to the NBEMS and the administrative cost must be covered by the applicant).

The written training program should provide each trainee with:

- i. Experience and clinical competence in a variety of paediatric urology cases including inpatient and outpatient care.
- ii. Experience in surgical aspects in a variety of paediatric urology cases
- iii. Exposure to neonatal units and paediatric intensive care
- iv. Familiarity with all contemporary imaging modalities and radiation safety
- v. Implementation and evaluation of urodynamic studies in children
- vi. Experience in multidisciplinary management of nephrology cases
- vii. Experience in multidisciplinary management of myelodysplasia cases.
- viii. Experience in multidisciplinary management of problems related to sexual differentiation
- ix. Exposure to foetal medicine
- x. Exposure to paediatric renal transplantation

The training programme should also support participation in clinical and experimental research. Active participation in local or international paediatric urology meetings (particularly with presentations) should be encouraged. The programme should be planned to maintain an ongoing scholarly activity including:

- i. Weekly clinical discussions and rounds
 - ii. Regular programme of teaching
 - iii. Regular journal clubs
 - iv. Regular clinical and experimental research conferences
 - v. Discussions of morbidity and mortality.

Experience in clinical and operative aspects of paediatric urology and scholarly activity of the trainee should be recorded in a logbook

III. SYLLABUS

1. Theoretical knowledge:

The trainee is a surgical specialist who has certification in Urology or in Paediatric Surgery from the National Authority. To build up her or his experience, the trainee should be involved in the management (including diagnosis, treatment and follow up care) of a significant number of in-patients and out-patients. He/she also must be willing to take part in the educational activities within the institution. She/he should participate in research activities and produce a scientific output during her/his training e.g. a scientific paper or a presentation. Theoretical knowledge covers the whole spectrum of paediatric urology including embryology, normal development of a child, natural history of the prenatal and postnatal findings, surgical and non-surgical management of the child as well as daily care of children with congenital anomalies and acquired diseases of the uro-genital system. The trainee must be aware of the consequences of the urological diseases as well as the invasive treatment modalities to the kidney function. The trainee must be also familiar with the long-term outcome of the surgical and non-surgical treatment as well as with the management of late complications in order to help in the transition to adolescent-adult. Special attention must be put to recognition and management of child abuse through the paediatric urology training.

The main domains of the theoretical knowledge are as following:

- i. Embryology of the urogenital system
- ii. Principles of the diagnostic tools
- iii. Perioperative management (principles of anaesthesia and pain management)
- iv. Congenital and acquired diseases of the kidney
 - v. Congenital and acquired anomalies of the urinary tract
 - vi. Congenital and acquired anomalies of the gonads and genitalia
 - vii. Congenital and acquired anomalies of the adrenal glands
- viii. Functional problems of the lower urinary tract
 - ix. Paediatric emergencies of the urogenital tract
 - x. Infections of the urogenital system
 - xi. Urolithiasis
 - xii. Paediatric uro-oncology

The trainee should have sufficient linguistic ability to communicate with patients and colleagues and to study international literature.

2. Practical skills:

The candidate has to take active part (performing surgery under supervision, performing the surgery or assisting surgery to residents) in a sufficient number of paediatric urology operative procedures equally divided during the training period covering the entire field of paediatric urology as specified below. At the end of her/his training period, the candidate should be able to perform most of the surgeries independently. Since, one hospital may not be able to provide adequate exposure to the wide spectrum of anomalies, these lacunae must be filled by rotation of postings as per the guidance provided by the National Board. The compliance to the type and minimum number of cases is shown in table 1.

Table 1. Calculation of the minimal requirements			
AO - Assistant/observer; S - Performing the procedure under supervision IS - Being able to perform the procedure independently.			
	Open cases	Minimal number	How to count AO- Assistant/observer; S-performing the procedure under supervision; IS-being able to perform the procedure independently)
i.	Open renal and upper tract (pyeloplasty/nephrectomy/surgery for duplication)	30	AO+S+IS
ii.	Open reimplantation of ureter to the bladder (any technique)/ureteric	25	AO+S+IS

	diversions/vesicostomy		
iii.	Open orchidopexy /hydrocele/varicocele	40	S+IS
iv.	Penile surgery (circumcision, surgery for penile anomalies)	40	S+IS
v.	Distal hypospadias repair (including revisions)	25	S+IS
vi.	Proximal hypospadias repair one-stage/two-stage	15	AO+S+IS
ENDOUROLOGY			
i.	Diagnostic cystoscopy, ureteropyelography, insertion of ureteral catheter/double-J stent insertion	20	S+IS
ii.	Injections (endoscopic correction of reflux, botulinum-toxin injection)	25	S+IS
iii.	Any other intervention done using a cystourethroscope (PUV ablation, ureterocele, urethrotomy excluding stone cases)	25	S+IS
iv.	Endoscopic stone surgery (all endoscopic procedure for stone surgery -	20	AO+S+IS

	PCNL, URS, RIRS, cystolithotripsy etc)		
v.	Extracorporeal lithotripsy	10	AO+S+IS
MIS			
i.	Renal and upper tract surgery (pyeloplasty/nephrectomy/surgery for duplication)	15	AO+S+IS
ii.	Lower tract surgery (including ureteric reimplantation, bladder, bladder neck)	5	AO+S+IS
iii.	Surgery for gonads and diagnostic/minor DSD (orchidopexy, gonadectomy, varicocele, biopsy etc)	20	AO+S+IS
DIAGNOSTIC AND SMALL INVASIVE PROCEDURES			
i.	Invasive urodynamics (cystometry, videourodynamics)	40	AO+S+IS
ii.	Image guided interventions (kidney biopsy, nephrostomy, percutaneous cystostomy)	15	AO+S+IS
INDEX CASES IN PAEDIATRIC UROLOGY (centralized or rare cases)			
i.	Bladder augmentations (any technique) and continent diversion	7	AO+S+IS

	(including MIS procedure)		
ii.	Bladder neck procedures for maintaining continence (including MIS procedure)	7	AO+S+IS
iii.	Any primary surgery related to EEC and cloaca	5	AO+S+IS
iv.	Surgery related to a DSD (excluding diagnostic procedures) and urogenital sinus	5	AO+S+IS
v.	Oncological procedures (adrenal, kidney, gonads) including MIS procedures	12	AO+S+IS
vi.	Surgery/management for urogenital trauma	12	AO+S+IS
vii.	Surgery related to renal transplant	5	AO+S+IS
viii.	Female genitalia: vaginal atresia/septum	7	AO+S+IS

The Fellow should carry out clinically relevant research, take care of her/his non-technical skills, as clinical reasoning, appraisal of research evidence, appropriate patient assessment, record keeping, time management, patient safety, infection control, communication, teaching and training, managerial aspects, teamwork, leadership, quality improvement as well as aspects of probity and ethics.

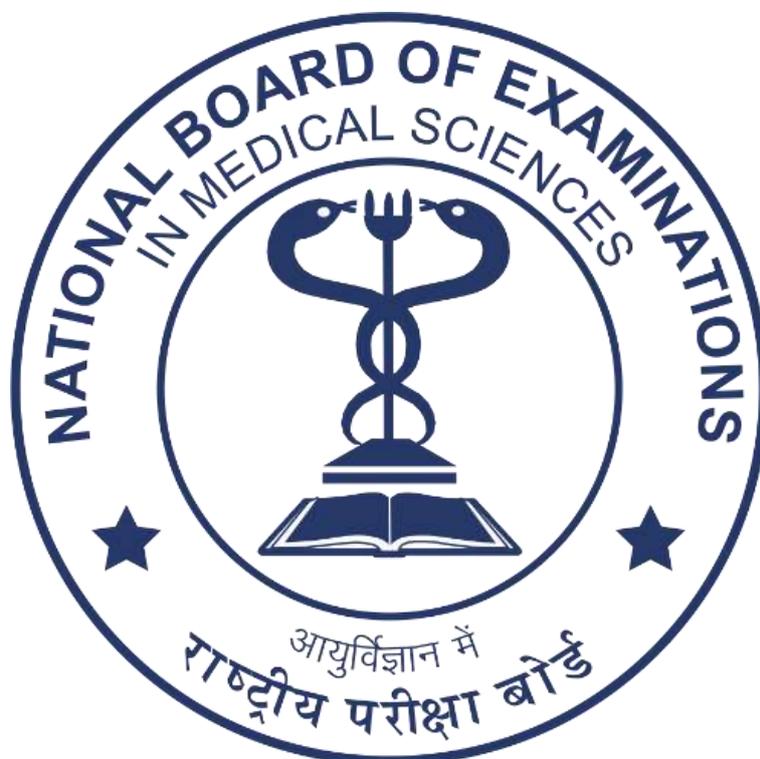
IV. LOG BOOK

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



आयुर्विज्ञान में राष्ट्रीय परीक्षा बोर्ड

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