



## **YENEPOYA UNIVERSITY**

**Deralakatte, Mangaluru -575018**

### **REGULATIONS AND CURRICULUM GOVERNING POST DOCTORAL FELLOWSHIP IN UROLOGY**

**(CURRICULUM - EFFECTIVE FROM 2017-18)**

**ATTESTED**  


**Dr.Gangadhara Somayaji K.S.  
Registrar  
Yenepoya(Deemed to be University)  
University Road, Deralakatte  
Mangalore-575 018, Karnataka**



YENEPOYA  
UNIVERSITY

Recognized under Sec 3(A) of the UGC Act 1956 as per Notification No. F.9-11/2007-U.3 (A) dated 27<sup>th</sup> February 2008

No. YU/REG/ACA/A. Council/27/2016

31.01.2017

**NOTIFICATION**

Sub: Starting of Post Doctoral Fellowship in Nephrology, Urology and Surgical Oncology

Ref: Agenda-11 of the 27<sup>th</sup> meeting of the Academic Council held on 09.01.2017

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The Academic Council at its meeting held on 09.01.2017, vide Agenda-11 and subsequently the Board of Management has approved the proposal to start Post Doctoral Fellowship in Nephrology, Urology and Surgical Oncology. The course shall commence from the academic year 2017-18.

Copy to:

1. The Principal – YMC
2. HoD, Dept. of Surgical Oncology
3. HoD, Dept. of Urology
4. HoD, Dept. of Nephrology
5. The Controller of Examinations
6. Academic Section

REGISTRAR

mi  
Registrar

Yenepoya University  
University Road, Deralakatte  
Mangalore - 575 018

University Road, Deralakatte, Mangalore-575018

T: +91 824 220 4676 / 4668 / 4669 / 4671 / 2192 / 2193 F : +91 824 220 4667 E : [reachus@yenepoya.org](mailto:reachus@yenepoya.org)

[www.yenepoya.edu.in](http://www.yenepoya.edu.in)

## **Post Doctoral Fellowship in Urology**

The infrastructure and faculty of the department of Urology will be as per MCI guidelines

### **1. GOALS**

The goal of Fellowship course is to produce a competent physician who:

- Recognizes the health needs of adults and carries out professional obligations in keeping with principles of National Health Policy and professional ethics;
- Has acquired the competencies pertaining to Urology that are required to be practiced in the community and at all levels of health care system;
- Has acquired skills in effectively communicating with the patients, family and the community;
- Is aware of the contemporary advances and developments in medical sciences.
- Acquires a spirit of scientific enquiry and is oriented to principles of research methodology; and Has acquired skills in educating medical and paramedical professionals.

### **2. OBJECTIVES**

At the end of the Fellowship course in Urology, the student should be able to:

- Recognize the key importance of medical problems in the context of the health priority of the country;
- Practice the specialty of Urology in keeping with the principles of professional ethics;
- Identify social, economic, environmental, biological and emotional determinants of adult Urology and know the therapeutic, rehabilitative, preventive and promotion measures to provide holistic care to all patients;
- Take detailed history, perform full physical examination and make a clinical diagnosis; Perform and interpret relevant investigations (Imaging and Laboratory); Perform and interpret important diagnostic procedures;
- Diagnose Urological illnesses in adults based on the analysis of history, physical examination and investigative work up;
- Plan and deliver comprehensive treatment for illness in adults using principles of rational drug therapy. Plan and advise measures for the prevention of Urological diseases;
- Plan rehabilitation of adults suffering from chronic illness, and those with special needs; Manage Urological emergencies efficiently;

- Demonstrate skills in documentation of case details, and of morbidity and mortality data relevant to the assigned situation;
- Demonstrate empathy and humane approach towards patients and their families and respect their sensibilities;
- Demonstrate communication skills of a high order in explaining management and prognosis, providing counseling and giving health education messages to patients, families and communities.
- Develop skills as a self-directed learner, recognize continuing educational needs; use appropriate learning resources, and critically analyze relevant published literature in order to practice evidence-based medicine;
- Demonstrate competence in basic concepts of research methodology and epidemiology;
- Facilitate learning of medical/nursing students, practicing physicians, para- medical health workers and other providers as a teacher-trainer;
- Play the assigned role in the implementation of national health programs, effectively and responsibly; Organize and supervise the desired managerial and leadership skills;
- Function as a productive member of a team engaged in health care, research and education

### **3. ELIGIBILITY AND DURATION OF COURSE**

#### **Duration of the Course**

The period of study and training for the Nephrology fellowship shall be 22 months including examination process.

#### **Commencement of Academic Session**

The academic session for the Post-Graduate shall commence as per university schedule

#### **Eligibility Criteria :**

The candidates who have passed M.S (General Surgery) / D.N.B (General Surgery) or any equivalent degree from a recognized University.

#### **Number of Examination**

The University shall conduct not more than two examinations in a year, with an interval of not less than four (4) and not more than six (6) months between the two examinations.

## **Attendance**

All students joining the fellowship training programme shall work as full time residents during the period of training, attending not less than 80% (eighty percent) of the training during each calendar year, and will be given full time responsibility, assignments and participation in all facets of the educational process.

## **4. SYLLABUS**

### **4.1 Theory**

#### **Anatomy**

- Surgical Anatomy of the Retroperitoneum, Kidneys and Ureters
- Anatomy of the Lower Urinary Tract and Male Genitalia

#### **Clinical Decision Making**

- Evaluation of the Urologic Patient: History, Physical Examination, and Urinalysis
- Urinary Tract Imaging : Basic Principles
- Outcomes Research

#### **Basics of Urologic Surgery**

- Basic Instrumentation and Cystoscopy Basic of
- Laparoscopic Urologic Surgery

#### **Infections and Inflammation**

- Infections of the Urinary TractA. Schaeffer
- Inflammatory Conditions of the Male Genitourinary Tract
- Interstitial Cystitis and Related Disorders
- Sexually Transmitted and Associated Diseases  
Urological Implications of AIDS and Related  
Conditions Cutaneous Diseases of the External  
Genitalia
- Tuberculosis and Other Opportunistic Infections of the Genitourinary System

### **Molecular and Cellular Biology**

- Basic Principles of Immunology
- Molecular Genetics and Cancer Biopsy
- Tissue Engineering Perspectives for Reconstructive Surgery

### **Reproductive and Sexual Function**

- Male Reproductive Physiology Male Infertility
  - Surgical Management of Male Infertility
  - Physiology of Erectile Dysfunction : Pathophysiology, Evaluation, Nonsurgical Management
  - Epidemiology, Evaluation, and Nonsurgical Management of Erectile Dysfunction
  - Prosthetic Surgery for Erectile Dysfunction
  - Vascular Surgery for Erectile Dysfunction
  - Peyronie's Disease
  - Priapism
  - Androgen Deficiency in the Aging Male Female
  - Sexual Function and Dysfunction

### **Male Genitalia**

- Neoplasms of the Testis
- Surgery of Testicular
- Tumors of the Penis
  - Surgery of Penile and Urethral Carcinoma
  - Surgery of the Penis and Urethra
  - Surgery of the Scrotum and Seminal Vesicles

### **Renal Physiology and Pathophysiology**

- Renal Physiology and Pathophysiology
- Renovascular Hypertension

### **Upper Urinary Tract Obstruction and Trauma**

- Pathophysiology of Obstruction
- Management of Upper Urinary Tract Obstruction Upper
- Urinary Tract Trauma

### **Renal Failure and Transplantation**

- Renal Transplantation
- Etiology, Pathogenesis, and Management of Renal Failure

### **Urinary Lithiasis and Endourology**

- Urinary Lithiasis : Etiology, Epidemiology, and Pathophysiology
- Evaluation and Medical Management of Urinary Lithiasis
- Surgical Management of Upper Urinary Tract Calculi Ureteroscopy and

- Retrograde Ureteral Access
- Percutaneous Approaches to the Upper Urinary Tract

### **Neoplasms of the Upper Urinary Tract**

- Renal Tumors
- Urothelial Tumors of the Upper Urinary Tract  
Urothelial Tumors of the Renal Pelvis and Ureter  
Open surgery of the Kidney
- Laparoscopic Surgery of the Kidney
- Ablative Therapy for Renal Tumors

### **The Adrenals**

- Pathophysiology, Evaluation, and Medical Management of Adrenal Disorders Surgery of the Adrenals

### **Urine Transport, Storage, and Emptying**

Physiology and Pharmacology of the Renal Pelvis and Ureter  
 Physiology and Pharmacology of the Bladder and Urethra  
 Pathophysiology, Categorization, and Management of Voiding Dysfunction  
 Urodynamic and Video dynamic Evaluation of Voiding Dysfunction  
 Neuromuscular Dysfunction of the Lower Urinary Tract  
 Urinary Incontinence : Epidemiology, Pathophysiology, Evaluation, and Overview of Management  
 The Overactive Bladder  
 Pharmacologic Management of Storage and Emptying Failure  
 Conservative Management of Urinary Incontinence : Behavioral and Pelvic Floor Therapy,  
 Urethral and Pelvic Devices  
 Electrical Stimulation and Neuromodulation in Storage and Emptying Failure  
 Retropubic Suspension Surgery for Incontinence in Women  
 Vaginal Reconstructive Surgery for Sphincteric Incontinence  
 Pubovaginal Slings  
 Tension-Free Vaginal Tape Procedures  
 Injection Therapy for Urinary Incontinence  
 Additional Treatment for Storage and Emptying Failure  
 Geriatric Voiding Dysfunction and Urinary Incontinence  
 Urinary Tract Fistulae  
 Bladder and Urethral Diverticula  
 Surgical Procedures for Sphincteric Incontinence in the Male : The Artificial Genitourinary Sphincter;  
 Perineal Sling Procedures

### **Bladder ; Lower Genitourinary Calculi and Trauma**

Urothelial Tumors of the Bladder  
 Management of

Superficial Bladder Cancer  
Management of Metastatic and Invasive Bladder Cancer  
Surgery of Bladder Cancer  
Laparoscopic Bladder Surgery  
Use of Intestinal Segments in Urinary Diversion  
Cutaneous Continent Urinary Diversion Orthotopic  
Urinary Diversion  
Genital and Lower Urinary Tract Trauma Lower  
Urinary Tract Calculi

### **Prostate**

Molecular Biology, Endocrinology, and Physiology of the Prostate and Seminal Vesicles  
Etiology, Pathophysiology, and Epidemiology of Benign Prostatic Hyperplasia Natural History,  
Evaluation, and Nonsurgical Management of Benign Prostatic Hyperplasia  
Minimally Invasive and Endoscopic Management of Benign Prostatic Hyperplasia  
Retropubic and Suprapubic Open Radical Prostatectomy  
Epidemiology, Etiology, and Prevention of Prostate Cancer  
Pathology of Prostatic Neoplasms  
Ultrasonography and Biopsy of the Prostate Tumor  
Markers in Prostate Cancer  
Early Detection, Diagnosis, and Staging of Prostate Cancer  
Definitive Therapy of Localized Prostate Cancer : Outcomes  
Expectant Management of Prostate Cancer  
Anatomic Retrograde Retropubic Prostatectomy  
Radical Perineal Prostatectomy  
Laparoscopic and Robotic Radical Prostatectomy and Pelvic Lymphadenectomy  
Radiation Therapy for Prostate Cancer  
Cryotherapy of Prostate Cancer  
Treatment of Locally Advanced Prostate Cancer  
Management of Rising Prostate-Specific Antigen after Definitive Therapy  
Hormonal Therapy for Prostate Cancer Management of Hormone-Resistant Prostate Cancer

### **Pediatric Urology**

Normal and Anomalous Development of the Urinary Tract  
Renal Function in the Fetus  
Congenital Obstructive Uropathy  
Perinatal Urology  
Evaluation of Pediatric Urologic Patient  
Renal Disease in Childhood  
Urinary Tract Infections in Infants and Children  
Anomalies of the Kidney  
Renal Dysplasia and Cystic Disease of Kidney  
Anomalies and Surgery of the Ureteropelvic  
Junction Ectopic Ureter  
Vesicoureteral Reflux



Prune-Belly Syndrome  
Exstrophy and Epispadias Complex  
Surgical Technique for One-Stage Exstrophy Reconstruction  
Bladder Anomalies in Children  
Posterior Urethral Valves and Other Urethral Anomalies  
Voiding Dysfunction in Children : Neurogenic and Non-neurogenic  
Urinary Tract Reconstruction  
Hypospadias  
Abnormalities of External Genitalia in Boys  
Abnormalities of Testis and Scrotum : Surgical Management  
Sexual Differentiation : Normal and Abnormal  
Surgical Management of Intersex  
Pediatric Oncology  
Pediatric Endourology and Laparoscopy  
Pediatric Genitourinary Trauma

#### **4.2. Practical:**

History, examination and writing of records:

History taking should include the background information, presenting complaints and the history of present illness, history of previous illness, family history, social and occupational history and treatment history.

Detailed physical examination should include general physical and CVS examination

Skills in writing up notes, maintaining problem-oriented medical records (POMR), progress notes, and presentation of cases during ward rounds, planning investigation and making a treatment plan should be taught.

Other Urology procedures- investigative Urological Procedures like uroflowmetry, CNG, Doppler, Ultrasound & Ultrasound guided procedures.

#### **4.3 Clinical Teaching**

General, Physical and specific examinations of Genitourinary should be mastered. The resident should be able to analyse history and correlate it with Clinical findings. He should be well versed with all radiological procedures like IVU, Nephrostogram and RGP, Ascending uroeltherogram. He should present his daily admissions in morning report and try to improve management skills, fluid balance, choice of drugs. He should clinically analyse the patient & decide for pertinent Investigations required for specific patient.

## **5. TEACHING PROGRAMME**

### **5.1 General Principals**

Acquisition of practical competencies being the keystone of postgraduate medical education, postgraduate training is skills oriented.

Learning in postgraduate program is essentially self-directed and primarily emanating from clinical and academic work. The formal sessions are merely meant to supplement this core effort.

### **5.2 Teaching Sessions**

The teaching methodology consists of bedside discussions, ward rounds, case presentations, clinical grand rounds, statistical meetings, journal club, lectures and seminars.

Along with these activities, trainees should take part in inter-departmental meetings i.e clinico-pathological and clinico-radiological meetings that are organized regularly.

Trainees are expected to be fully conversant with the use of computers and be able to use databases like the Medline, Pubmed etc.

They should be familiar with concept of evidence based medicine and the use of guidelines available for managing various diseases.

### **5.3 Teaching Schedule**

Following is the suggested weekly teaching programme in the Department of Urology:

<b>Sr. No.</b>	<b>Description</b>	<b>Frequency</b>
1.	Case Presentation & Discussion	Once a week
2.	Seminar	Once in two weeks
3.	Journal Club	Once in two weeks
4.	Grand Round presentations	Once in two weeks
5.	Emergency case discussions	Once a week
6.	Statistical & Mortality Meet	Once a month
7.	Clinico–Pathological meet	Once a month
8.	Clinico–Radiological meet	Once a month
9.	Clinico-Surgical meet	Once a month
10.	Faculty lecture teaching	Once a month

Each unit should have regular teaching rounds for residents posted in that unit. The rounds should include bedside case discussions, file rounds (documentation of case history and examination, progress notes, round discussions, investigations and management plan), interesting and difficult case unit discussions.

Central hospital teaching sessions will be conducted regularly and Fellowship

residents would present interesting cases, seminars and take part in clinico-pathological case discussions.

#### **5.4 Conferences and Papers**

A resident must attend at least one National/State conference and one podium /poster presentation is **mandatory**.  
One Journal research paper publication is **optional**.

### **6. SCHEDULE OF POSTINGS**

OPD : Twice a week  
OT : Thrice a week  
Investigative urology : All Days

The Fellowship resident is expected to do daily ward rounds at 8 AM in the morning and evening between 5 Pm to 7 PM along with PG resident.

The Fellowship resident should do the dressing of the patient that have been operated/assisted by them.

The Fellowship resident should note down the history and examination of admitted patients and should daily put progress note in files.

The normal working hours will be from 8 AM to 8 PM. When on emergency duty, the resident is supposed to stay overnight in the resident room.

### **MAINTENANCE OF LOG BOOK**

#### **Log book (Performance record book):**

Maintaining Log book (recording the work done during the course) is mandatory. The log book should be reviewed and assessed by the faculty of the department and shall be made available at the time of practical examination for review by examiners.

#### **Log book should contain:**

1. Certificate duly signed by incharge Faculty, Head of department and Head of Institution stating that Dr..... has worked in the department for a period of 2 years from.....to.....

2. Record of training:

- Name of the trainee.
- Name of the Hospital.
- Training period.
- Name of Faculty Incharge.

3. Postings.

4. Working schedule.

5. Teaching programme.

6. Presentation in Journal club: Date, Article Name, Assessment.

7. Seminars: Date, Topic / Subject, Assessment.

8. Case presentation: Date, Teacher's Signature.

9. Death Audit / C PC: Date, Case discussed, Assessment & Signature.

10. Procedures: Date , Name of patient, Type, Complications observed.

11. Teaching activity: Date, Topic, Class.

12. Participation in departmental Research activity.

13. Conference / Workshop attended paper and poster presentation (State/ National Conferences)

The resident will be assessed once every year in the form of theory test at the end of each academic year.

7. **RESEARCH PROJECTS (Optional)**

Participation in departmental research activity.

The student will (i) identify a relevant research problem, (ii) conduct a critical review of literature, (iii) formulate a hypothesis, (iv) determine the most suitable study design, (v) state the objectives of the study, (vi) prepare a study protocol, (vii) undertake a study according to the protocol, (viii) analyze and interpret research data, and draw conclusion, (ix) write a research paper(**Desirable**).

## 8. ASSESSMENT

All the Fellowship residents are assessed daily for their academic activities and also periodically.

### 8.1. General Principles

The assessment is valid, objective and reliable

It covers cognitive, psychomotor and affective domains.

Formative, continuing and summative (final) assessment is also conducted in theory as well as practical. In addition, research project is also assessed separately.

### 8.2. Formative Assessment

The formative assessment is continuous as well as end of term.

The former is based on the feedback from the consultants concerned. Formative assessment will provide feedback to the candidate about his/her performance and help to improve in the areas they lack.

Record of internal assessment should be presented to the board of examiners for consideration at the time of final examination.

### 8.3. Internal Assessment : (Not to be included in final assessment)

The performance of the resident during the training period should be monitored throughout the course and duly recorded in the log books as evidence of the ability and daily work of the student. Marks should be allotted out of 100 as followed.

- 1) Personal Attributes – 20
  - 2) Clinical Work - 40
  - 3) Academic Activity - 40
  - 4) Theory (average of two internal assessment) – 50
  - 5) Practical (average of two internal assessment) - 50
- 1<sup>st</sup> Internal Assessment will be done at the end of first Academic year  
2<sup>nd</sup> Internal Assessment will be Before university exam

#### 1. **Personal attributes:**

**Behavior and Emotional Stability:** Dependable, disciplined, dedicated, stable in emergency situations, shows positive approach.

**Motivation and Initiative:** Takes on responsibility, innovative, enterprising, does not shirk duties or leave any work pending.

**Honesty and Integrity:** Truthful, admits mistakes, does not cook up information, has ethical conduct, exhibits good moral values, loyal to the institution.

**Interpersonal Skills and Leadership Quality:** Has compassionate attitude towards patients and attendants, gets on well with colleagues and paramedical staff, is respectful to seniors, has good communication skills.

## 2. Clinical Work:

**Availability:** Punctual, available continuously on duty, responds promptly on calls and takes proper permission for leave.

**Diligence:** Dedicated, hardworking, does not shirk duties, leaves no work pending, does not sit idle, competent in clinical case work up and management.

**Academic ability:** Intelligent, shows sound knowledge and skills, participates adequately in academic activities, and performs well in oral presentation and departmental tests.

**Clinical Performance:** Proficient in clinical presentations and case discussion during rounds and OPD work up. Preparing Documents of the case history/examination and progress notes in the file (daily notes, round discussion, investigations and management) Skill of performing bed side procedures and handling emergencies.

3. **Academic Activity:** Performance during presentation at Journal club/ Seminar/ Case discussion/Stat meeting and other academic sessions. Proficiency in skills as mentioned in job responsibilities.

4. **End of term theory examination** conducted at end of 1<sup>st</sup> year by the department and after end of 22 months examination conducted by the university.

5. **Term practical/oral examinations** will be completed by the end of 24 months. Marks for

**personal attributes** and **clinical work** should be given annually by all the consultants under whom the resident was posted during the year. Average of the two years should be put as the final marks out of 20.

Marks for **academic activity** should be given by the all consultants who have attended the session presented by the resident.

The Internal assessment should be presented to the Board of examiners for due consideration at the time of Final Examinations.

### **8.4. SUMMATIVE ASSESSMENT**

Ratio of marks in theory and practical will be equal. The pass percentage will be 50%.

Candidate will have to pass theory and practical examinations separately.

#### **EXAMINATION**

Consists of Theory, Clinical and Oral examination.

##### **A. Theory examination**

**(i) 4 papers**

<b>Sr. No.</b>	<b>Title</b>
Paper –I	Basic Sciences as related to Urology
Paper-II	Clinical Urology
Paper-III	Operative Urology
Paper-IV	Recent advances in Urology

Duration: 3 Hours  
Marks for each paper: 100

**(ii) ESSAY QUESTION**

10X10=100

100X4=400

**B. Practical & Viva-Voce Examination**

There should not be more than 3 candidates per day. There will be 1 external and 1 internal examiners.

**C. Pattern of Examination**

**(i) Clinical**

4 long case	100X4=400
Ward Round(4cases)	4x25=100

2 Short Cases - 30 minutes each.  
Ward Rounds (4 cases)

**(ii) Oral Examination**

Viva	
Instruments	100
Radiology	

**D. TOTAL MARKS**

**(i) Theory**

Paper I - 100 Marks  
Paper II - 100 Marks  
Paper III - 100 Marks  
Paper IV - 100 Marks

**Total - 400 Marks**

(Separate minimum marks required to pass theory exam = 300 marks)

**(ii) Clinical**

Short Case & ward rounds 100 X 5 =500  
Oral exam =100  
**Total =600**

**Total (Theory+Clinical) = 1000**

<b>MARKS QUALIFYING FOR A PASS</b>		
	Maximum Marks	Qualifying for a pass 50% Marks
Theory	400	200
Clinical and Viva Voce	600	300

A student shall secure not less than 50% marks in each head of passing, which shall include, 1.Theory, 2.Practical including Clinical and Viva- Voce examination.

Each paper should get minimum of 40% and aggregate of 50%. Evaluated by two examiners, one External and one Internal.

If there is difference of >15% of marks in evaluation by the two examiners, then the theory paper shall be evaluated for the third time.

**9. JOB RESPONSIBILITIES**

**Outdoor Patient (OPD) Responsibilities**

The working of the residents in the OPD should be fully supervised.

They should evaluate each patient and write the observations on the OPD card with date and signature.

Investigations should be ordered as and when necessary using prescribed forms.

Residents should discuss all the cases with the consultant and formulate a management plan.

Patient requiring admission according to resident's assessment should be shown to the consultant on duty.

Patient requiring immediate medical attention should be sent to the casualty services



with details of the clinical problem clearly written on the card.

Patient should be clearly explained as to the nature of the illness, the treatment advice and the investigations to be done.

Resident should specify the date and time when the patient has to return for follow up.

### **In-Patient Responsibilities**

Each resident should be responsible and accountable for all the patients admitted under his care. The following are the general guidelines for the functioning of the residents in the ward:

Detailed work up of the case and case sheet maintenance:

He/She should record a proper history and document the various symptoms.

Perform a proper patient examination using standard methodology. He should develop skills to ensure patient comfort/consent for examination. Based on the above evaluation he/she should be able to formulate a differential diagnosis and prepare a management plan. Should develop skills for recording of medical notes, investigations and be able to properly document the consultant round notes.

To organize his/her investigations and ensure collection of reports.

Bedside procedures for therapeutic or diagnostic purpose.

Presentation of a precise and comprehensive overview of the patient in clinical rounds to facilitate discussion with senior residents and consultants.

To evaluate the patient twice daily (and more frequently if necessary) and maintain a progress report in the case file.

To establish rapport with the patient for communication regarding the nature of illness and further plan management.

To write instructions about patient's treatment clearly in the instruction book along with time, date and the bed number with legible signature of the resident.

All treatment alterations should be done by the residents with the advice of the concerned consultants and senior residents of the unit.

### **Admission day**

Following guidelines should be observed by the resident during admission day.

Resident should work up the patient in detail and be ready with the preliminary necessary investigations reports for the evening discussion with the consultant on duty.

After the evening round the resident should make changes in the treatment and plan out the investigations for the next day in advance.

### **Doctor on Duty**

Duty days for each Resident should be allotted according to the duty roster.

The resident on duty for the day should know about all sick patients in the wards and

relevant problems of all other patients, so that he could face an emergency situation effectively.

In the morning, detailed over (written and verbal) should be given to the next resident on duty. This practice should be rigidly observed.

If a patient is critically ill, discussion about management should be done with the consultant at any time.

The doctor on duty should be available in the ward through out the duty hours.

### **Care of Sick Patients**

Care of sick patients in the ward should have precedence over all other routine work for the doctor on duty.

Patients in critical condition should be meticulously monitored and records maintained.

If patient merits ICU care then it must be discussed with the senior residents and consultants for transfer to ICU.

### **Resuscitation skills**

At the time of joining the residency programme, the resuscitation skills should be demonstrated to the residents and practical training provided at various work stations.

Residents should be fully competent in providing basic and advanced cardiac life support.

They should be fully aware of all advanced cardiac support algorithms and be aware of the use of common resuscitative drugs and equipment like defibrillators and external cardiac pacemakers.

The resident should be able to lead a cardiac arrest management team.

### **Discharge of the Patient**

Patient should be informed about his/her discharge one day in advance and discharge cards should be prepared 1 day prior to the planned discharge.

The discharge card should include the salient points in history and examination, complete diagnosis, important management decisions, hospital course and procedures done during hospital stay and the final advice to the patient.

Consultants and DM Residents should check the particulars of the discharge card and counter sign it.

Patient should be briefed regarding the date, time and location of OPD for the follow up visit.

### **In Case of Death**

In case it is anticipated that a particular patient is in a serious condition, relatives should be informed about the critical condition of the patient beforehand.

Residents should be expected to develop appropriate skills for breaking bad news

and bereavements.

Follow up death summary should be written in the file and face sheet notes must be filled up and the sister in charge should be requested to send the body to the mortuary with respect and dignity from where the patient's relatives can be handed over the body.

In case of a medico legal case, death certificate has to be prepared in triplicate and the body handed over to the mortuary and the local police authorities should be informed.

Autopsy should be attempted for all patients who have died in the hospital especially if the patient died of an undiagnosed illness.

### **Bedside Procedures**

The following guidelines should be observed strictly:

Be aware of the indications and contraindications for the procedure and record it in the case sheet. Rule out contraindications like low platelet count, prolonged prothrombin time, etc.

Plan the procedure during routine working hours, unless it is an emergency. Explain the procedure with its complications to the patient and his/her relative and obtain written informed consent on a proper form. Perform the procedure under strict aseptic precautions using standard techniques. Emergency tray should be ready during the procedure.

Make a brief note on the case sheet with the date, time, nature of the procedure and immediate complications, if any.

Monitor the patient and watch for complications(s).

### **OT responsibilities**

The 1<sup>st</sup> year resident observes the general layout and working of the OT, understands the importance of maintaining sanctity of the OT, scrubbing, working and sterilization of all the OT Instrument, knowhow of endoscopes.

He/ She is responsible shifting of OT patients, for participating in surgery as

2<sup>nd</sup> assistant and for post operative management of patient in recovery and in ward.

The 2<sup>nd</sup> year resident is responsible for pre op work up of the patient, surgical planning and understanding the rationale of surgery. He/she is the first assistant in surgery and is responsible for anticipating intra op and post op complications and managing them. He should also be able to perform minor/medium/major surgeries independently and assist in medium/major/extra major surgeries. He/she should be able to handle all emergencies and post op complications independently and is responsible for supervision and guidance of his/her juniors.

### **Medico-Legal Responsibilities of the Residents**

All the residents are given education regarding medico-legal responsibilities at the time of admission in a short workshop.

They must be aware of the formalities and steps involved in making the correct death certificates, mortuary slips, medico-legal entries, requisition for autopsy etc.

They should be fully aware of the ethical angle of their responsibilities and should learn how to take legally valid consent for different hospital procedures & therapies. They should ensure confidentiality at every stage.

## **10. SUGGESTED BOOKS**

### **10.1 Books**

Campbells Urology Glenns

Urology

Year book of Urology

Recent advances in Urology

Emmetts Clinical Uroradiology

Mc Anirich Trauma of Genitourinary Tracts

Libertino-Pediatric And Adult Reconstructive Urologic Surgery

Richie & Damico-Urologic Oncology

Stroky-Handbook of urology diagnosis and therapy Allen

D Seftel-male and female sexual dysfunction.

### **10.2. Journals**

Urological clinics of North America

British Journal of Urology

Journal of endourology Journal

of Urology

Indian Journal of Urology