### **COMPONENTS OF THE POSTGRADUATE CURRICULUM:**

The major components of the Postgraduate curriculum shall be:

- Theoretical knowledge
- Practical and clinical skills
- Thesis skills.
- Attitudes including communication skills.
- Training in research methodology

# 3. Syllabus

During the training period, efforts are always made that adequate time is spent in teaching the students skill required for performing basic surgical procedures and making them accustomed to handling difficult trauma and critical patients.

### Theory:

- Diagnostic and interventional radiology.
- Preparing a patient for surgery
- > Anaesthesia and pain management
- > Acute life support and critical care
- > Fluid and Electrolyte balance and transfusion products
- Nutrition
- Wounds,tissue repair and scars
- > Basic surgical skills and anastomosis
- Principles of laparoscopic surgery
- Wound Infection
- > Sterile precautions and theatre safety
- Parasitic infections.
- > AIDS.
- > Transplantation
- Cyst, ulcers and sinus
- Principles of Oncology
- Day Surgery

- > An approach to surgical audit
- Surgical ethics
- Clinical trials and statistics
- Plastic & reconstructive surgery
- > Skin grafting, Flaps-Principles of Soft Tissue
- > Coverage, Hypospadias, Principles of microvascular
- > surgery with special reference to vessel repair.
- > Burns
- Accident and Emergency Surgery
- Warfare injuries
- Craniocerebral trauma (Head Injury), Spinal Injuries
- > Elective Neurosurgery- Brain tumours, spinal cord
- tumours,hydrocephalus,
- spinal dysraphism
- Cleft lip & palate
- Maxillofacial injuries
- Oral and Oropharyngeal cancer
- Disorders of salivary glands
  - -Anatomy, clinical features, investigations, examination, Medical and surgical treatment of stone, infection and tumour in the salivary glands.
- > Pharynx, larynx and neck
  - -Anatomy and physiology clinical features, investigations, diagnosis and emergency treatment of airway
- obstruction and tumours
- > Thyroid Development and anatomy, physiology and investigations, medical and surgical treatment of thyroid problems
- Parathyroid and adrenal glands
  - -Surgical concept of parathyroid and adrenal disorders, investigations, role of surgery, management of various cancers.
- > Breast--Surgical anatomy, investigations, anomalies, management of benign and malignant breast disorders.

# **Diagnostic Skills:**

➤ Interpretation of X-rays/CT/MRI ,ultrasonographic abnormalities and laboratory tests.

# **Surgical Skills:**

- Observation of general layout and working of OT,
- understanding the importance of management and maintaining the sanctity of OT, scrubbing, working and sterilization of OT instruments, equipments eg electrocautery etc., Laparoscopic Set, shifting of OT patients, pre operative work up of patients, acquisition of basic surgical skills to perform minor/medium surgeries independently (suprapubic cystostomy, Urethral Dilatation, Cystolithotomy, Varicocele, Orchidectomy, Ureterolithotomy, Excision of Cyst & I&D, Excision of Breast Lump, Surgery of Hydrocele, appendectomy, Herniotomy, Hernia repair, umblical hernia, Exploratory laparotomy for perforation, Haemorrhoidectomy, Fistulectomy, Fissurectomy, Circumcision and Skin grafting.

> Assist in major surgeries, handling of all types of surgical emergencies, post operative management of patient in recovery, ICU and ward, Waste disposal.

## **Teaching Program**

# **General Principles:**

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.

## **Teaching Sessions**

In addition to bedside teaching rounds, in the department there are daily hourly sessions of formal teaching per week comprising of seminars, case presentations, journal clubs, clinical meetings and central sessions.

# **Teaching schedule**

The suggested teaching schedule of the department will be as follows:

- 1. Seminar
- 2. Case Presentation
- 3. Journal Club
- 4. Case Presentation
- Clinical Meeting
- 6. Central session (held in hospital auditorium regarding various topics like CPC, guest lectures, student integrated seminars, grand round, sessions on basic sciences, biostatistics, research methodology, teaching methodology, health economics, medical ethics and legal issues).
  - > Lectures on different topics are given by the consultants every month.
  - > All sessions are attended by the faculty members.
  - > All PGs are supposed to attend the sessions except the ones posted in Surgical ICU and emergency.
  - > All the teaching sessions are assessed by the consultants at the end of session and kept in the office for internal assessment.

# **PG Curriculum Surgery:**

- The P.G. residents in IIIrd year take preferably undergraduate classes in the evening. This helps them to prepare and make them confident in clinical presentation.
- The undergraduate students are encouraged to clarify their doubts and sharpen their clinical skills.
- Ward rounds may be service or teaching rounds. Service rounds should be taken every day for the care of patients and every unit should have grand roundsfor teaching purpose.
- Entry of both the rounds should be made in Log Book.

- Inter departmental meetings particularly between Pathology, Gastroentrology and Radio-diagnosis are being held at least once a month, and entries of intresting cases should be made in the log book.
- Recommended that at least two state level CME programmes should be attended by each student during the three year tenure.
- Attending conferences is encouraged although it is optional.

### **Postings:**

- The postgraduate student rotates through all the clinical units in the department. In addition, following special rotations are also undertaken:
- Emergency
- Surgical ICU
- Superspcialities (Neurosurgery, Plastic Surgery, Paediatric Surgery & Urology)
- Posting at one area will be for 2 months.
- During first year the resident will work under direct supervision of the 2nd& 3<sup>rd</sup> year residents/senior residents and consultant on call.
- He/she will be responsible for taking detailed history, examination of patients as per the file record and send appropriate investigations as advised by the seniors and making discharge cards.
- Initially all procedures are to be observed and then done under supervision of seniors and during 2nd/ 3rdyear can do procedures independently. In 2ndyear, resident is posted in emergency, Surgical ICU and specialities.
- In 3rdyear, resident is also encourged to make independent decisions in management of cases and perform surgery independently .
- He /she is also involved in teaching of undergraduate students.

## **Thesis:**

- > Every candidate shall carry out work on an assigned research project under the guidance of a recognized postgraduate teacher, the project shall be written and submitted in the form of a Thesis.
- > Every candidates shall submit thesis plan to the University within time frame set by university.
- > Thesis shall be submitted to the University six months before the commencement of theory examination
- 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 conclusions; (ix) write a research paper.

# Assessment:

- > All the PG residents are assessed daily for their academic activities and also periodically.
- > 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 practicals. In addition, thesis is also assessed separately.

### **Formative Assessment**:

- > The formative assessment is continuous as well as end-of-term.
- > The former is based on the feedback from the senior residents and the consultants concerned.
- > All the consultants of the unit in which resident is working will give assessment based on performance.
- > Formative assessment will not count towards pass/fail at the end of the program, but will provide feedback to the candidate.

#### **Internal Assessment:**

> The performance of the Postgraduate student 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.

#### 1. Personal attributes:

- > Behaviour 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 2 years 9 months

## 5. End of term practical/oral examinations

- After 2 years 9 months.
- > Assesment for personal attributes and clinical work should be given annually by all the consultants under whom the resident was posted during the year.
- > assesment 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

#### **Summative Assessment**

- > Ratio of marks in theory and practicals will be given below.
- ➤ The passing percentage will be 50%.
- > Candidate will have to pass theory and practical examinations separately

#### A.

- ➤ Theory Examination (Total= 400)
- Paper
- Title Marks
- Paper 1:
- Basic sciences as applied to Surgery 100
- Paper 2:
- General surgery including pathology 100
- Paper 3:
- General surgery including pathology 100
- Paper 4:
- > Specialities related to general surgery 100
- **> B**.
- Practical Examination and Viva voce (Total=600)
- ➤ Long Case (s) One = 225
- $\triangleright$  Short Case (s) -Three x 75 = 225
- ➤ Table viva Two x 75 = 150

#### **Job Responsibilities**

- > During first year, the resident should work under direct supervision of the 2nd& 3rdyear residents/senior residents and consultant on call.
- > He/she will be responsible for taking detailed history, examination of patients as per the file record and send appropriate investigations as advised by the seniors and making discharge cards.
- Initially all the procedures are to be observed andthen performed under supervision of seniors and during 2nd/ 3rdyear should do procedures independently. In 2ndyear, resident should be posted in emergency, Surgical ICU and specialties concerned. In 3rdyear, resident is encouraged to make independent decisions in management of cases and perform surgery independently.
- > He /she is involved in teaching of undergraduate students.

### **Suggested Books**

- Core Books
  - o Bailey & Love's- Short Practice of Surgery
  - o Farquaharson's Text Book of General Surgery
  - o Current Surgical Diagnosis & Treatment
  - S.Das Manual on Clinical Surgery
- 9.2. Reference Books
  - Hamilton Bailey Demonstration of Clinical signs &
- Symptoms in surgery
  - Emergency Surgery By Baily H
  - Dudley's Atlas of General Surgery
  - Pye's Surgical Handicraft
  - Mastery of Surgery by Baker R.J Vol. I & II
  - Schwartz-Principles of Surgery
  - Recent Advances, Tayler
  - Sabiston Text Book of Surgery, Part I & II
  - Maingot's Abdominal Operations
  - o Oxford Text Book of Surgery Vol.I,II & III by Morris and Wood
  - S.Das Text Book on Surgical Short Cases
  - Mastery of Thoracic Surgery
  - Text Book of Hepatobiliary Surgery-Blumgart
  - Textbook Colorectal Surgery by Corman Marwin L.
  - Laparoscopic Surgery Technique-Darsi
  - Zollinger Altas of Surgical Operation
  - Surgery of Alimentary Tract Vol 1 & 2 Shackelford
- 9.3. Journals
- Annals of Surgery

- Archives of Surgery
- British Journal of Surgery
- Journal of Neurosurgery
- Journal of Neurosurgery : Spine
- o Journal of Neurosurgery : Pediatrics
- Journal of Plastic , Reconstructive and Aesthetic
- Journal of Trauma
- o Journal of Urology
- Neurosurgery clinics of North America
- Plastic & Reconstructive Surgery
- Surgery
- Surgical Clinics of North America
- Urologic Clinics of North America
- Indian Journal of Surgery
- Journal of Minimal Access Surgery
- Journal of Indian Association of Paediatric Surgery
- o Indian Journal of Burns
- o Indian Journal of Thoracic and Cardio vascular Surgery
- o Journal of Emergency Trauma and Shock
- Current problems in Surgery