

PAEDIATRIC SURGICAL TRAINING PROGRAMME

AIM: To adequately expose students to the spectrum of Paediatric Surgical problems and to train them adequately to tackle the surgical problems pertaining to the newborn baby and the growing child.

Eligibility for admission: M.S. degree in general surgery for 3 year course, MBBS degree for 5 year course.

Duration of the course: 3 years (Post M.S.), 5yrs (Post MBBS)

Medical Aspects:

- 1) Awareness of the extent of Paediatric Surgical practice and technical skills.
- 2) Familiarity with the diagnosis and management of Common and complex Paediatric Surgical Problems as well.
- 3) Careful, accurate and speedy decision making in sick children with surgical problems.
- 4) Recognition of the unique peri-operative Physiological processes in children.
- 5) Key aspects of preparation of a child for Surgery.
- 6) Familiarity with the postoperative care in Children.
- 7) Interpretation of common lab & imaging investigations in children.
- 8) Participation in the management of Paediatric Surgical emergencies.

Psychosocial aspects:

- 1) Communication skills with parents and children (obtaining focused history from parents and children)

- 2) Understanding the impact of chronic disease on children and their families.
- 3) Important ethical, moral and social issues of Paediatric Surgical practice.
- 4) Teamwork and interaction with other disciplines.

The student shall be thorough with

- 1) Embryology of malformations of respiratory, gastrointestinal, genito-urinary, neck and skin.
- 2) Physiology of fluid and electrolytes, temperature regulation, metabolism, nutrition, growth and development, Psychological aspects of infants and children.
- 3) Pathophysiology and principles of management of children with

- Acute respiratory distress.
- Intestinal obstruction.
- Multiple trauma.
- Sepsis
- Peritonitis.
- Gastrointestinal bleeding.
- Foreign body aspiration/ingestion.
- Abdominal masses.
- Acute swelling of groin and scrotum.
- Acute abdominal pain
- Obstructive jaundice.
- Obstructive uropathy
- Tumours
- Congenital anomalies

Evaluation Criteria

- 1) History taking / interviewing skill
- 2) Knowledge about the surgical conditions
- 3) Physical examination
- 4) Clinical judgment and diagnostic ability
- 5) Technical and procedural skills.
- 6) Oral presentation skills.
- 7) Written notes and records.
- 8) Interpersonal skills

- 9) Professional and ethical behavior
- 10) Self directed learning / initiation / motivation

Trainees should be well versed with the following essential topics:

Head & Neck	
1. Cystic Hygroma	
2. Torticollis - Sternocleidomastoid Tumor	
3. Branchial Cyst & Fistula	
4. Thyroglossal Cyst & fistula	
5. Cervical Adenitis	
6. Cystic Lesions in floor of the mouth (Ranula, Sublingual Dermoid)	
7. Pierre- Robin Assosiation	
8. Vascular Malformations and Tumors	
9. Facial clefts	

Thorax	
1) Acute Respiratory Distress	
2) Pleural Collections (Pneumothorax, Pleural effusion, Chylo thorax, Empyema)	

3) Congenital Lobar Emphysema	
4) Congenital Cystic Adenomatoid Malformation	
5) Lung Abscess	
6) Esophageal Atresia	
7) Congenital Diaphragmatic Hernia	
8) Medistinal Masses	
9) Thoracic Duplication Cysts	
10) Achalasia Cardia	

11) Gastro- esophageal reflux	
12) Sequestrations Of Lung	
13) Medistinal Masses	
14) Vascular Rings	
15) Sternal Clefts(including Cantrell's Pentology etc)	

Abdominal	
1. Cong. Pyloric Stenosis	
2. Gastric Volvulus	
3. Duodenal Obstructions	
4. Malrotation of Gut	
5. Intestinal Atresia	
6. Intussusception	
7. Meckels Diverticulum / Ommphalo mesenteric duct lesions.	
8. Duplication Cysts of Bowel	
9. Necrotizing Enterocolitis	
10. Hirschsprungs Disease	
11. Ano- rectal Anomalies	
12. GIT Bleeding.	
13. Neonatal Intestinal Obstruction	
14. Approach to abdominal masses	
15. Appendicitis	
16. Approach to Acute Abdominal Pain	
17. Abdominal wall defects – Gastroschisis, Omphacocele	
18. Trichobezoar	

Hepato- Biliary	
1. Biliary Atresia	
2. Choledochal Cyst	
3. Hydatid Cyst	
4. Portal Hypertension	
5. Liver Trauma	
6. Liver Tumors	

Genito- Urinary	
1. Hydrocele & Hernia / Umbilical Hernia	
2. Undescended Testis	
3. Hypospadias	
4. Urinary tract infections in Children - Evaluation	
5. Inter Sex	
6. Hydronephrosis	
7. Megaureters	
8. Vu Reflux	
9. Posterior Urethral Valves	
10. Torsion Testis (Acute Scrotum & groin swellings)	
11. Extrophy Epispadias Complex	
13. genito- urinary Trauma	

Neuro - Surgery	
1. Myelo-Meningocele	
2. Encephalocele	
3. Hydrocephalus	

Tumors	
1. Wilms Tumor	
2. Neuroblastoma	
3. Lymphomas	
4. Soft Tissue Sarcoma	
5. Hepatic Tumors	
6. Testicular Tumors	
7. Ovarian Tumors.	

Trauma	
1. Blunt Abdominal Trauma	

General	
1. Burns	
2. Child abuse	
3. Perioperative fluid management	
4. Thermoregulation in a Neonate	
5. Transport of a Surgical neonate	

MODEL QUESTION PAPERS

PAPER I BASIC SCIENCES

1. Discuss the development of the diaphragm and the management of a newborn baby with congenital diaphragmatic hernia. (30 Marks) .
2. Discuss the approach and management of sepsis in newborn. (30 Marks)

Short Notes (10 marks each)

1. Embryology of Anorectal anomalies
2. ECMO
3. Theories of Testicular Descent.
4. Intestinal Atresia

PAPER II GENERAL PAEDIATRIC SURGERY

1. Discuss the diagnosis and management of Long Gap Esophageal Atresia. (30marks.)
2. Discuss the management of blunt abdominal trauma and the role of splenic conservation surgery.(30marks.)

Short Notes (10 x 4 marks)

1. Cystic Hygroma
2. Intussusception
3. Branchial Cleft Anomalies
4. Pectus Excavatum

PAPER III

SYSTEMIC PAEDIATRIC SURGERY

1. Discuss the diagnosis and management of Testicular Feminisation syndrome. (30 MARKS)
2. Discuss the diagnostic possibilities and management of 6yr old male child with urinary incontinence. (30 MARKS)

Short Notes: 10 x 4 marks

1. Tetralogy of Fallot
2. Neuroblastoma
3. Posterior Urethral Valves
4. VATS

PAPER IV
RECENT ADVANCES

1. Discuss in detail about antenatal detection of fetal anomalies and the role paediatric surgeon (30 MARKS).

2. Discuss the role of minimally invasive surgery in paediatric age group, advantages and disadvantages. (30 MARKS)

Short Notes 10 x 4 marks

1. Tumor Markers
2. Organ Transplantation.
3. Radionuclides in paediatric surgical diagnosis.
4. Total parenteral nutrition and complications
