

### 1. Information related Course

- Background : Over the last 2 decades, with the vast increase in knowledge in medicine, various pediatric subspecialties have developed. Pediatric Gastroenterology has developed as an independent subspecialty since the last 20 years.
- The incidence of pediatric gastrointestinal (GI), liver and nutritional diseases have increased with fall in routine infective cases such as acute diarrheal disease. There is vast scope of into this with diseases like celiac disease, inflammatory bowel disease (IBD), pancreatitis, neonatal cholestasis, chronic liver disease such as Wilson disease, autoimmune liver diseases, metabolic liver diseases to name few.
- With recent advances of pediatric endoscopy services and pediatric liver transplant, there is need of specialised training of fellow pediatricians, towards this speciality and is need of hour
- **Course Objectives:** • The aim of the fellowship is to provide an exhaustive training to enable the candidates to diagnose and treat GI, Liver & nutritional disorders in children appropriately. The objective of this course is to provide the necessary training and clinical exposure to the candidate so that he/she can develop and manage a pediatric gastroenterology set up independently/ work as a consultant in pediatric gastroenterologist.

The trainee will spend a year in clinical pediatric GI & liver research and laboratory training. He/she will complete at least one paper acceptable for publication in a peer reviewed journal, and participate in the teaching programs in the department (case presentations, seminar, journal club, radiology/nuclear medicine meetings and pathology/mortality/research project presentation/combined adult gastroenterology meeting). He/she will be responsible for caring for all inpatient in pediatric GI and liver problems, as well as interdepartmental consultations and emergencies. He will also learn diagnostic & therapeutic endoscopies in children.

- **Eligibility:** MD in Pediatrics / DNB Pediatrics
- **Total Credit Points:** 40
- **Number of days:** 365 days
- **Duration of the programme:** One Year
- **Number of Batches:** 1
- **Exams/Assessments:**

### ASSESSMENT:

Formative assessment – Logbook assessed and graded periodically for competency in clinical skills, research and academics.

Summative assessment – Theory and practical examination at the end of the course

a. Theory Examination – 2 papers (Total 200 Marks)

- Paper -1 – Pediatric Gastroenterology and basics (anatomy, physiology, embryology) - (100marks)
- Paper -2 – Pediatric Gastroenterology and Recent Advances - (100 marks)

b. Practical Examination- (Total 200 marks)

- Case Presentations
  - 1 long case – (100 marks)
  - 1 short case – (50 marks)

- Table and Viva-voce (Instruments, Procedure, Radiology, Histopathology, Spotters, OSCE) (100 marks)

c. Project Work – 50 Marks

Total Exam Marks – 500 marks

The theory exam will be conducted before the practical exam.

- **Syllabus**

- 1 Anatomy, Patho-Physiology of GI and liver diseases
- 2 Malnutrition in details
- 3 Diarrheal diseases – acute and chronic
- 4 Pathophysiology of acute, recurrent and chronic pancreatitis.
- 5 Approach and management of neonatal cholestasis, metabolic liver disease
- 6 Acute hepatitis, Acute liver failure, Chronic liver disease, Portal hypertension, management of ascites
- 5 Celiac disease and Malabsorption disorders
- 7 Inflammatory bowel disease
- 8 Functional GI disorders & Abdominal pain Syndromes
- 9 Infections – HBV, HCV, CMV, EBV, H Pylori, Giardia, Amoeba, Liver abscess, Cholangitis, Infective Colitis – Shigella etc.
- 10 GI Motility disorders
- 11 Eosinophilic disease
- 12 Wilson disease
- 13 Autoimmune liver disease
- 14 Nutritional management of different diseases including TPN
- 15 Pediatric Surgical diseases

## 2. Training Facilities –

- Pediatrics Gastroenterology & Hepatology clinic OPD

1. Clinical skills:

- a. Detailed history and examination of all Patients with pediatric GI, Liver & Pancreatic disorders
- b. Anthropometry assessment and interpretation based on age and gender specific normative data
- c. Nutritional Assessment
- d. Performing diagnostic & therapeutic endoscopies such as gastroscopy, colonoscopy etc
- e. PICU management of acute liver failure
- f. He will also learn about pediatric liver transplant.
- g. Basics of Manometry

2. Teaching Skills:

Competency to teach basics of pediatric gastroenterology and hepatology to undergraduates/postgraduates and nurses training in inpatient management of disorders.

3. Research Skills:

The trainee will achieve competency in carrying out research studies, writing a paper (case reports/ original research/ review articles) and statistical analysis of data. During the training, the candidate must present at least 1 paper/poster, carry out a research project and publish at least 1 article.

4. TEACHING METHODS:

5. Pediatric OPDs – Every Thursday
6. Pediatric Endoscopy – Every Tuesday
7. Bedside Teaching daily

8. Teaching:
  - a. Case Discussion once a week
  - b. Seminar once in two week
  - c. Journal club once in a month
  - d. Project work discussion once a week
  - e. Histopathology and Radiology Sessions every week
  - f. Skills lab based teaching 2 times per month

Teaching and learning	150 hours	(10 CREDITS)
Assignment/Seminar/ Group discussion/Tutorial	90 hours	(6 credits)
Practical/Demonstration/ Hands on Experience /Lab work	360 hours	(12 credits)
Field work/clinical work		
Research work	360 hours	( 12 credits)

### **3. Teaching Faculty Details**

1. Dr Shailaja Mane  
MBBS, MD Pediatrics,  
Professor and Head of Department of Pediatrics  
Registration No. 70305

2. Dr. Vishnu Biradar  
Pediatric Gastroenterologist  
( Reg. No 2003083133)

3. Dr. Sampada Tambolkar  
Professor  
Reg. No 2000020782

4 . Sanjay Chavan  
Professor  
Reg. No - 2000062247

5. Dr. Shweta Shettiwar  
DCH,DNB (Pediatrics) FNB Pediatric Gastroenterology  
( MMC Reg.No 2019054334)

### **4. Infrastructure**

- Outpatient clinical care is made available on Thursday with round the clock emergency services throughout the week. Pediatric Gastroenterology & Hepatology emergencies are

managed at the emergency department and Pediatric intensive care unit. Liver Biopsy procedures done in PICU.

- Endoscopy procedures done on daily basis.
- Manometry Procedures done on daily basis.

**5. Fees :** 1,00,000/- (Rupees One Lakh Only)