Guidelines for

Competency Based Training Programme

in

PDCC Pediatric Gastroenterology

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**SRI AUROBINDO UNIVERSITY**

SAIMS HOSPITAL CAMPUS, Indore Ujjain, State Highway, Bhawrasla, Indore, Madhya Pradesh 453555

S.No 2.6

Name of course - PDCC in paediatric Gastro

Intake capacity-1

Entry Qualification - MD/DNB pediatrics

Duration - 1 year

Syllabus enclosed - Yes

Fee -

Stipend -

Course director -

Dr. Sumit Kumar Singh(7275210460)

MD (Pediatrics)

PDCC, DM Pediatrics Gastroenterology

Experience- 8.5 years total 4.5 years post DM

Faculty -

Dr. Gunjan Kela (9329023535)

DCH, DNB (Pediatrics)

Experience- 9 years

Dr. Sumit Kumar Singh (7275210460)

MD (Pediatrics)

PDCC, DM Pediatrics Gastroenterology

Experience- 8.5 years total 4.5 years post DM

Dr. Nida Mirza(7974327662)

MD (Pediatrics)

FNB (Pediatric Gastroenterology

Experience- 5 years post MD

 2 years post FMB

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INTRODUCTIONThe specialty of Pediatric Gastroenterology developed as a Sub-Specialization of Pediatrics and is predominantly concerned with the care of pediatric patients with gastrointestinal problems. It is a branch of Pediatrics concerned with prevention, investigation and therapy of and research into diseases involving gastrointestinal disorders.

1. PROGRAMME GOALo prepare pediatric gastroenterologists who would be able to meet and respond to the changing healthcare needs and expectations of the society.
2. To develop pediatric gastroenterologists who posses knowledge, skills and attitudes that will ensure that they are competent to practice gastroenterology safely and effectively.
3. To ensure that they have appropriate foundation for lifelong learning and further training in their specialty.
4. To help them develop to be critical thinkers and problem solvers when managing health problems in the community they serve.

# PROGRAMME OBJECTIVES

The educational and training process aims to produce Pediatric gastroenterologists who:

* Can address all aspects of healthcare needs of patients and their families.
* Maintain highest standards appropriate in their professional field.
* Are aware of current thinking about ethical and legal issues.
* Are Able to acts as safe independent practitioners whilst recognizing the limitation of their own expertise and are able to recognize their obligation to seek assistance of colleagues where appropriate.
* Are aware of the procedures and able to take appropriate action, when things go wrong, both in their own practice and in that of others.
* Will be honest and objective when assessing the performance of those they have supervised and trained.
* Can take advantage of information technology to enhance all aspects of patient care.
* Can develop management plans for the “whole patient” and maintain knowledge in other areas of medicine which impinge on the specialty of Pediatric Gastroenterology.
* Understand that effective communication between them and their patients can lead to more effective treatment and care.
* Apply appropriate knowledge and skill in the diagnosis and management of patients.
* Establish a differential diagnosis for patients presenting with medical problems by the appropriate use of the clinical history, examination and investigations.
* Are competent to perform the core investigations and procedures required in their specialties.
* Develop clinical practice which is based on an analysis of relevant clinical trials and have an understanding of their research methodologies.
* Are able to apply the knowledge of biological and behavioral sciences in clinical practice.
* Are able to identify and take responsibility for their own educational needs and attainment of these needs.
* Have developed the skills of an effective teacher.

# ELIGIBILITY CRITERIA FOR ADMISSIONS TO THE PROGRAMME

## PDCC Pediatric Gastroenterology Course:

* 1. Any medical graduate with DNB/ MD Pediatrics qualification ,
	2. Admission to 1year PDCC Pediatric Gastroenterology course is only through Entrance Examination conducted by SRI AUROBINDO UNIVERSITY.
	3. The exam will be conducted in 2 phases. Phase 1 theory exam consisting of multiple choice questions. Phase 2 will be a departmental assessment.

# Duration of Course: 1 Year

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# TEACHING AND TRAINING ACTIVITIES

The fundamental components of the teaching programme should include:

* + 1. Case presentations & discussion- once a week
		2. Seminar – Once a week
		3. Journal club- Once a week
		4. Grand round presentation (by rotation departments and subspecialties)- once a week
		5. Faculty lecture teaching- once a month
		6. Clinical Audit-Once a Month
		7. A poster and /or oral presentation at least once during their training period in a recognized conference.
		8. One research publication (original article/review article/case series/case report) in a peer reviewed journal.

The rounds should include bedside sessions, file rounds & documentation of case history and examination, progress notes, round discussions, investigations and management plan) interesting and difficult case unit discussions.

The training program would focus on knowledge, skills and attitudes (behavior), all essential components of education. It is being divided into theoretical, clinical and practical in all aspects of the delivery of the rehabilitative care, including methodology of research and teaching.

**Theoretical:** The theoretical knowledge would be imparted to the candidates through discussions, journal clubs, symposia and seminars. The students are exposed to recent advances through discussions in journal clubs. These are considered necessary in view of an inadequate exposure to the subject in the undergraduate curriculum.

**Symposia:** Trainees would be required to present a minimum of 8 topics based on the curriculum in a period of one year to the combined class of teachers and students. A free discussion would be encouraged in these symposia. The topics of the symposia would be given to the trainees with the dates for presentation.

**Clinical:** The trainee would be attached to a faculty member to be able to pick up methods of history taking, examination, prescription writing and management in rehabilitation practice.

**Bedside:** The trainee would work up cases, learn management of cases by discussion with faculty of the department.

**Journal Clubs:** This would be a weekly academic exercise. A list of suggested Journals is given towards the end of this document. The candidate would summarize and discuss the scientific article critically. A faculty member will suggest the article and moderate the discussion, with participation by other faculty members and resident doctors. The contributions made by the article in furtherance of the scientific knowledge and limitations, if any, will be highlighted.

**Research:** The student would carry out the research project in accordance with SRI AUROBINDO UNIVERSITY guidelines. He/ she would also be given exposure to partake in the research projects going on in the departments to learn their planning, methodology and execution so as to learn various aspects of research.

# Training Rotations:

Specialty training shall comprise of rotations in:

* Inpatients
* Outpatients
* Pediatric endoscopy under supervision
	+ Diagnostic upper GI endoscopy- 30
	+ Diagnostic upper GI endoscopy and biopsy,- 20
	+ Proctosigmoidoscopy and biospy-10
	+ Therapeutic endoscopy is optional
* Allied departments
	+ Pediatric surgery: 14 days
	+ Histopathology: 7 days
	+ Radiology: 7 days
* Monthly GI radiology and GI Pathology conferences will be held to enable the candidate to acquire good knowledge and skill in interpretation of various radiological investigations (USG, CT, MRI) and histopathological and cytopathological slides

# SYLLABUS

## OVERVIEW

The training is designed to develop both the generic and specialty- specific attributes necessary to practice independently as a consultant pediatric gastroenterologist. The aim is to train individuals to provide the highest standard of service to patients with gastrointestinal disorders. This includes the development of positive attributes towards lifelong learning and the ability to adapt to future technological advances and the changing expectations of society.

The educational process in pediatric gastroenterology aims to provide basic knowledge, intellectual, clinical and transferable skills to produce competent gastroenterology specialist. These specialists will be capable of providing specialized care of the highest order to pediatric patients with gastrointestinal disorders in the community as well as clinical tertiary centers. They shall recognize the health needs to the community and carry out professional obligations ethically and keeping their standards by engaging in continuing medical education.

## Scientific basis of Pediatric Gastroenterology

* Basic principles in Gastroenterology
* Explain anatomy and physiology of alimentary system.
* Explain gastrointestinal biochemistry
* Apply clinical skills to diagnose and mange gastrointestinal and hepatobiliary disorders.

## Diseases and presentations

**Acute and chronic diarrhea**

* Know the causes and symptoms of acute and chronic diarrhoea
* Be familiar with local isolation policies
* Know about oral and intravenous fluid therapy
* Understand the scientific principles for oral and intravenous fluid therapy
* Recognize features in the presentation which suggest serious pathology,

e.g. haemolytic uraemic syndrome, pelvic appendicitis, intestinal obstruction

* Know work-up and management of acute diarrhea
* Know the causes of chronic diarrhea and relevant work-up/ management both enteral and total parenteral nutrition
* Know to recognize and manage CMPA/ IBD/ celiac disease and intestinal lymphangiectasia
* Be able to evaluate complex case of malabsorption

## Approach to vomiting

* Know causes of vomiting/ appropriate evaluation and management
* Recognize features in the presentation which suggest serious pathology,

e.g. appendicitis, intestinal obstruction, malrotation, ICSOL,

## Congenital abnormalities and the newborn

* Know the presenting features of congenital abnormalities including trachea-oesophageal fistula. Malrotation, bowel atresias, Hirschsprung’s disease, abdominal wall defects, diaphragmatic hernia
* Be familiar with potential associated abnormalities.
* Know when the antenatal transfer to a neonatal Surgical centre should be considered
* Institute appropriate emergency treatment
* Recognize the need to liaise with surgeons
* Institute appropriate emergency treatment and be able to assess the fitness of the baby and the need to transfer to a specialist centre.
* Recognize when the bowel might be compromised
* Recognize the need to liaise with surgeons and when this urgent
* Know the full range of presenting features of congenital abnormalities of the intestinal tract.
* Be able to diagnose and manage care for the child with shorter bowel syndrome.

## Inflammatory bowel disease

* Be familiar with uncommon and unusual manifestations of inflammatory bowel disease
* Know and recognize the macroscopic and microscopic features of Crohn’s

disease, ulcerative colitis and intermediate colitis

* Be able to recognize common extra-intestinal manifestation of IBD
* Be able to manage all forms of IBD but especially severe cases including fistulas
* Anticipate and manage the complications of IBD, including malnutrition, osteoporosis and dysplasia/ cancer.
* Know the indications of surgery in IBD
* Be familiar with anti-inflammatory drugs and immune suppression used to manage IBD
* Be familiar with novel agent for treating IBD and possess an open attitude to their use in research protocols

## Celiac disease

* Know and recognize the histopathological changes in celiac disease.
* Know the precise level of risk, short and long-term complications of celiac disease.
* Be able to conduct a gluten challenge safely and measure adherence to a gluten free diet by endoscopy if necessary.

## Upper and lower Gastrointestinal bleeding

* Know the cause of upper and lower gastrointestinal bleeding
* Understand the potentially life threatening nature of this condition
* Assess the severity of this condition
* Institute appropriate emergency treatment
* Recognize features in presentation which suggest serious pathology
* Be able to investigate and manage upper and lower GI bleeding
* Recognize and be able to resuscitate a child with a significant GI bleeding

## Motility problems including gastro-oesophageal reflux and oesophagitis

* Know the range of presentations of gastro-oesophageal reflux and oesophagitis in otherwise well infant’s children and also in disabled children.
* Recognize the range of signs and symptoms associated with gastro- oesophageal reflux and oesophagitis
* Manage mild and moderate gastro-oesophageal reflux and recognize when to refer.
* Be able to manage severe gastro-oesophageal reflux disease.
* Be able to manage severe dysphagia
* Be able to diagnose and treat H. Pylori infection in young children and recurrent episodes in adolescents.
* Be able to perform and interpret intestinal transit studies
* Know the indications for the surgical treatment of gastro-oesophageal reflux disease and how to manage complications of surgery
* Pseudo Obstruction

## Chronic or recurrent abdominal pain

* Know the possible biological, psychological and social contributing factors in chronic or recurrent abdominal pain.
* Know which features suggest that reassurance rather than investigation is needed.
* Recognize features in the presentation that suggest the importance of different etiologies
* Be able to refer appropriately to psychology when required
* Consider when there might be child protection issues
* Be aware of different management strategies for irritable bowel syndrome (IBS)
* Be able to manage patients with IBS

## Pancreatic diseases

* Know about exocrine pancreatic dysfunction including cystic fibrosis and Shwachman-diamond syndrome
* Know the cause of acute and chronic pancreatitis
* Know the management of chronic pancreatitis and its complications
* Indications for ERCP/ surgery/ celiac plexus block
* Be able to prescribe Enzyme supplements

## Infantile Cholestasis

* Know the cause of intra and extra hepatic cholestasis
* Understand the clinical manifestations of cholestasis
* Know the potential diagnosis and jaundice, particularly the differential between biliary atresia and other forms of infantile cholestasis.
* Understand the various genetic basis of cholesystatic syndromes
* Know the reasons behind nutritional deficiencies in cholestasis and chronic liver disease.
* Understand the clinical manifestations of nutritional deficiencies
* Understand the clinical manifestations of nutritional deficiencies particularly found in liver disease
* Know the special nutritional formulae and supplements and the indications for their use.
* Be able to identify infantile cholestasis and initiate appropriate medical treatment and investigations
* Be able to interpret blood, ultrasound and biopsy results and understand their importance and limitations in reaching diagnosis.
* Be able to interpret blood, ultrasound and biopsy results and understand their importance and limitations in reaching diagnosis
* Be able to identify treatable causes of infantile cholestasis such as metabolic and infectious conditions
* Be able to counsel parents about the cause of cholestasis and give a realistic prognosis
* Be able to recognize and assess nutritional deficiencies and manage appropriate medical treatment and investigations

## Hepatosplenomegaly

* Know the causes of cirrhosis
* Understand the pathophysiology of portal hypertension
* Know other causes of ascites
* Know the causes of hepatic and extra-hepatic masses
* Know about storage disorders
* Know about haematological malignancies
* Know about peripheral stigmata of liver cell failure
* Be able to identify hepatosplenomegaly and other abdominal masses and manage appropriate treatment investigation
* Be able to make a diagnosis of cirrhosis, hepatic malignancies and metabolic conditions presenting in older children
* Be able to manage appropriately ascites and SBP
* Be able to manage refractory ascites and SBP
* Be able to recognize stigmata of liver cell failure

## Viral hepatitis and immune disorders

* Understand the serology, molecular diagnostics and their prognostic value in hepatotropic viruses
* Understand the screening tests used to detect hepatotropic viruses
* Understand the immune basis of some liver disorders
* Be able to identify viral and immune liver disorders and initiate appropriate medical treatment and investigations
* Be able to interpret immunological profiles related to auto-immune liver disorders
* Be able to interpret immunological profiles related to auto-immune liver disorders especially atypical patterns

## Metabolic liver disease

* Know the pathophysiology of metabolic conditions
* Know the pathophysiology of metabolic conditions affecting the liver and recent advance in treatment
* Understand the management of these conditions
* Be able to discuss metabolic problems with consultants in metabolic medicine

## Acute liver failure

* Be familiar with causes of acute liver failure
* Be familiar with the complications of acute liver failure
* Know the management of paracetamol poisoning
* Know the causes of acute liver failure
* Recognize the need to discuss the case with the liver unit early
* Be able to assess the severity and complications of this condition
* Be able to initiate appropriate resuscitation and liaise early with the pediatric liver unit
* Be able to identify acute liver failure and manage appropriate medical treatment and investigations
* Be able to identify acute liver failure and initiate first line treatment whilst arranging referral to Pediatric liver transplant unit
* Be able to recognize the progression of acute liver failure and the need for transplantation
* Be able to recognize the progression of acute liver failure and when liver transplantation is indicated and contra-indicated
* Know the causes of acute hepatic failure
* Understand the clinical manifestations of acute hepatic failure
* Know the pathophysiology of complications including cerebral oedema and heapto-renal syndrome
* Understand the indications for liver transplantation
* Understand the indications for liver transplantation and know the importance of timely involvement of transplant team
* Know about liver assist devices, dialysis and intracranial pressure monitoring

## Hepatic Tumor

* Know about benign and malignant liver tumors
* Understand the investigations in liver tumor
* Be able to assess a child with hepatic tumor
* Be able to initiate specialist investigations and interpret their results

## Nutrition

* Be able to take detailed dietary history
* Know the physiology of nutrient digestion, absorption, metabolism and elimination
* Know about the nutrition of the newborn, infancy, childhood and adolescent
* Know about child growth and development
* Be able to assess anthropometry
* Be able to assess WHO growth standard
* Know about nutritional status of children: Global and National
* Know about Breastfeeding: Anatomy, Physiology & Biochemistry
* Know about Breastfeeding problems & their management
* Know about Breastfeeding: Recent advances
* Know about Breastfeeding management, counseling and lactation management center
* Know about the importance of breastfeeding
* Know about IYCF: Complimentary feeding
* Know about Nutritional disorders: Chronic energy deficiency disorders, micronutrient deficiency disorders & different kind of nutrients
* Know about PEM
* Be able to manage SAM
* Be able to assess FTT
* Know about food based dietary guidelines: Food classification, food groups demonstration, including prepared home based menus
* Know about healthy food habits
* Know the epidemiology, etiology and clinical features of childhood obesity
* Know how to recognize, investigate and manage a case of short stature
* Know the indications and contraindications for commencing enteral and patrenteral nutritional supports
* Know the composition of different enteral feeds and patrenteral nutritional supports
* Understand the role of different members of the nutritional support team in the establishment and maintenance of patients receiving enteral and patrenteral nutritional supports
* Know the causes and effects of specific nutrient deficiencies including iron, zinc, copper, selenium, folate, vitamins and essential fatty acids

## Abdominal distension

* Know the causes of abdominal distension
* Initiate investigation and seek surgical opinion when required

## Constipation with or without soiling

* Be familiar with local and national guidelines for management
* Know about the predisposing conditions, e.g. hypothyroidism, neurodisability, psychosocial problems
* Understand the relevance of predisposing conditions, e.g. hypothyroidism, neurodisability, psychosocial problems
* Manage simple constipation with and without soiling
* Recognize when to liaise with more senior pediatricians or with specialist nurses, psychologist or psychiatrists

## Dysphagia

* Know the causes of dysphagia
* Be able to distinguish between organic and functional dysphagia
* Be able to evaluate dysphagia – recognize achalasia cardia/ stricture esophagus/ esophageal stenosis and eosinophilic esophagitis

## Malabsorption

* Know the causes of malabsorption including celiac disease
* Understand the principles of treatment of different types of malabsorption
* Recognize the role of the dietician and liaise appropriately
* Be able to explain and initiate investigations, nutritional assessment, dietary principles and liaise appropriately with the dietician

## Malnutrition

* Know the causes of malnutrition including organic and inorganic causes
* Be familiar with the consequences of malnutrition
* Know the principles of entreal and parentreal nutrition support
* Be able assess nutritional status
* Be able to initiate investigations to establish the diagnosis and to detect nutritional deficiencies

## Iron deficiency anaemia

* Know the causes of iron deficiency anaemia including poor diet, bleeding and malabsorption
* Understand factors which predisposes to dietary iron deficiency anaemia
* Be aware to the consequences of this condition
* Be able to manage iron deficiency anaemia
* Be able to counsel parents about dietary iron deficiency

## Other areas in which knowledge is to be acquired:

* Biostatistics, Research Methodology and Clinical Epidemiology
* Ethics
* Medico legal aspects relevant to the discipline
* Health Policy issues as may be applicable to the discipline

# Competencies

Residents of this training program will be equipped to function effectively within the current and emerging professional, medical and social contexts. At the completion of the training program in Pediatric Gastroenterology, as defined by this curriculum, it is expected that the pediatric gastroenterologist will have developed the clinical skills and have acquired the theoretical knowledge for competent pediatric gastroenterology practice.

It is expected that the pediatric gastroenterologist will be able to:

* Utilize effective communication with patients and their families and with professional colleagues
* Be devoted to lifelong learning
* Be equipped to manage both accurate and chronic gastrointestinal disorders
* Identify the pathophysiology and manifestations of gastrointestinal disorders, and modern therapeutics, which can be applied to patient diagnosis and management.
* Apply appropriate skills to perform necessary diagnostic and therapeutic decisions.
* Demonstrate a capacity to rationally analyze clinical date and published work.
* Demonstrate an understanding of and commitment to the role of research in advancing medical care of gastrointestinal diseases.
* Develop a commitment to compassionate, ethical and professional behavior.
* Identify gastrointestinal health issue of importance to the community and contribute constructively to debate about those issues.
* Apply primary and secondary prevention strategies in gastrointestinal and heaptobiliary diseases.

**Recommended books (latest edition) & Journals**

1. Gastrointestinal Diseases. Sleisenger & Fordtran
2. Bockus Gastroenterology Ed : E.Berk
3. Liver Disease in Children. Fourth Edition (May 7, 2014). Frederick

J.Suchy.Ronlad J.Sokol, William F Balaistreri. Cambridge University Press.

1. Pediatric Gastrointestinal Disorder. W.Allan Walker, Ranald E Klienman,

 Philip M.Shreman, Benjamin L, Shneider, Sanderson. BC Decker.Inc

1. Pediatric Gastrointestinal Disease: Pathophysiology, diagnosis and

management. Robert Wyllte & Jeffreys Hyame. Philadelphia, WD saunders.

1. Gastroenterology Clinics of North America (series)
2. Pediatric Clinics of North America (series)
3. Nutrition metabolism and patient care. By Hill Oven
4. Nutrition and Immunity. By Hurley(Academic Press)
5. Clinical nutrition in Gastroenterology By Heatley (Churchill Livingstone)
6. Antioxidant status, Diet, Nutrition and Health. Ed. Andreas M PapasCRC

 Press.

**Journals**

1. J Pediatric Gastroenterology and Nutrition
2. Gastroenterology
3. Gut
4. Hepatology
5. American Journal of Gastroenterology
6. Digestive Disease & Sciences
7. Journal of Pediatric Surgery
8. Pediatric Surgery International
9. Journal of Gastroenterology and Hepatology
10. Journal of Hepatology
11. Indian Journal of Gastroenterology
12. Indian Pediatrics
13. Indian J Pediatrics
14. Endoscopy
15. Gastrointestinal Endoscopy
16. American journal of clinical nutrition

## 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.

# Leave Rules

* 1. PDCC Trainees are entitled to leave during the course of PDCC training as per the Leave Rules prescribed by SRI AUROBINDO UNIVERSITY.

**EXAMINATION**

**FORMATIVE ASSESSMENT: At 6 months into the course**

Formative assessment includes various formal and informal assessment procedures by which evaluation of student’s learning, comprehension, and academic progress is done by the teachers/ faculty to improve student attainment.

Formative assessment test (FAT) is called as “Formative “as it informs the in process teaching and learning modifications. FAT is an integral part of the effective teaching .The goal of the FAT is to collect information which can be used to improve the student learning process. Formative assessment is essentially positive in intent, directed towards promoting learning; it is therefore part of teaching. Validity and usefulness are paramount in formative assessment and should take precedence over concerns for reliability. The assessment scheme consists of Three Parts which has to be essentially completed by the candidates.

The scheme includes:-

Part I:- Conduction of theory examination

Part-II :- Feedback session on the theory performance

Part-III :- Work place based clinical assessment

**Scheme of Formative assessment**

**PART – I**

**CONDUCT OF THEORY**

**EXAMINATION**

Candidate has to appear for Theory Exam and it will be held for One day.

**PART – II**

**FEEDBACK SESSION ON THE THEORY PERFORMANCE**

Candidate has to appear for his/her Theory Exam Assessment Workshop.

**PART – III**

**WORK PLACE BASED CLINICAL ASSESSMENT**

After Theory Examination, Candidate has to appear for Clinical 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

**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 any work pending, and 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.

**FINAL EXAMINATION**

The summative assessment of competence will be done in the form of Exit Examination leading to the award of the PDCC ,

The exit question paper will be complied by one nodal person designated by the Examination Section Sri Aurobindo University and assessed by the same person.

The Theory and Practical of Fellowship Exit Examination shall be conducted at the same examination centre of the concerned specialty

**Theory:** Two papers each 100 marks.

* Paper I: Basic and Recent advances: 10 short questions with equal marks for each question
* Paper II: Clinical application – 10 short questions with equal marks for each Question
* **Practical – 200 marks**
* Ward round 50 marks (Worked up cases can be allotted 48 hours before the day of practical examination: 1 cases) or MCQ based questions
* Case presentations (to be allotted on the day of practical examination in consultation with examiner ) x 2 cases; 50 marks each)
* Viva voce : 20 marks
* Histology and radiology spots : 20 marks
* Instruments : 10 marks

**The candidate should obtain minimum 50% marks to pass separately in theory and practical.**

**Conduct of exit examination**

The internal examiner may choose one external examiner as per convenience and availability. The external examiner should fulfill the following criteria:

1. Experience of more than 10 years in the field of Pediatric Gastroenterology Hepatology.
2. Presently working in a reputed college or institution or hospital or retired in last five years
3. Should have preferably run training courses in this field
4. Not more than three terms for each external examiner at a particular center

Evaluation of theory paper will be done by the external examiner and internal examiners together.

**Certificate :** A signed PDCC certificate will be awarded to exit examination qualified candidates on behalf of the Sri Aurobindo University .

## Declaration of PDCC Exit Results

1. PDCC Exit Examination is a qualifying examination.
2. Results of PDCC Exit Examination (theory & practical) are declared as PASS/FAIL.

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