Program Specification for Master Degree in Pediatric

Program type: Single

Total credit points: 180 points

Academic year: 2021/2022

Department offering the program: pediaitrc department –Aswan university

Program Coordinators: Prof/ Bahaa Elhawary

External evaluators: Prof. Abd-Elrheem Abdrboo

Professor of pediatric Sohag university

I. Program Aims:

1. To produce competent clinicians knowing the basic background of leading causes of death in Egyptian patients. They will have the ability to asses, select and apply appropriate techniques to reach the proper diagnosis. Our trainee will be able to honestly and safely manage common diseases affecting the infant as well as urgent cases, screen patients for early diagnosis of complications, and take personal responsibility for their decisions.
2. To produce clinicians applying the national and international standards of evidence based medicine in pediatircs .

II. Intended learning outcomes of the program (ILOs)

A. Knowledge and understanding, by the end of this program; the students will be able to:

1. Define the main disease categories that may affect the pediatric age group well as the mechanisms underlying these disorders.
2. Describe the immune system functions in the context of pathogenesis of diseases and host immune response.

3. Describe the anatomy, physiology, biochemistry, cell biology, genetics, nutrition and pharmacology relevant to the different disease.
4. Describe the immunopathogenesis, manifestations and causes of different genetics diseases.
5. Recognize the value of each diagnostic tool including laboratory, endoscopy and abdominal ultrasonography, their limitations and complications.
6. Describe the guidelines for the management of different pediatirc diseases.
7. Define the principles of evidence based medicine and their application to the neonatology.
8. Define the indications, contraindications, dosage and complications of drugs used for picu

B: Intellectual skills,by the end of this program, the students should be able to:

1. Differentiate between the different parasitic, viral, bacterial, and fungal infections that can infect patients as well as those causing chronic diseases.
2. Correlate between the clinical presentation of various infectious and endemic hepatic diseases and human physiology, cell biology, pathology and immune response.
3. Interpret clinical symptoms and signs of neourologic diseases properly.
4. Choose the required investigations to reach a proper diagnosis.
5. Interpret laboratory, endoscopic, abdominal ultrasonography, and other imaging techniques results for the diagnosis of cardiac diseases.
6. Plan a proper management of hematology diseases.
7. Plan a proper management of different emergencies as haematemesis, hepatic encephalopathy, fevers...etc.

C: Professional and clinical skills, by the end of this program, the students should be able to:

1. Collect data properly from history and clinical examination to aid him in the differentiation between different diseases.
2. Use laboratory, and radiological examination suitable for different pediatirc diseases.

3. Present data and knowledge efficiently in bed rounds, grand rounds, journal clubs, lectures and conferences.
4. Perform clinical and interventional skills for diagnosis and management of endemic hepatic diseases correctly and safely under observation according to a check list.
5. Perform disinfection techniques properly.
6. Formulate a proper therapeutic strategy for common pediatirc diseases.
7. Manage emergencies and common pediatirc and neonatology diseases properly.

D:General and transferable skillsby the end of this course, the candidates should be able to;

1. Communicate in an ethical manner with patients.
2. Involve the patients in understanding their health problem, the complcations of their problems and in decision making for their management.
3. Judge cost-benefit issues when considering the use of different procedures.
4. Build up an excellent relation with professors, colleagues and paramedical personnel.
5. Practice the life-long habits of reading, literature-searches, consultation with colleagues, attendance of scientific meetings, and the presentation of scientific work as part of continuing professional education (CPD).
6. Adopt documentation skills to derive information from the population served
7. Use libraries and computer software packages and online information for learning, research and continuous medical education.

III. Academic standards:

This program is unique since it incorporated different topics from different disciplines.

- National Academic Reference Standards of postgraduates (NAQAAE)

1. Academic reference standers: The academic standers of pediatirc disease program is adopted and accredited by the departmental council

2. **External References for Standards:**

External reference for standards (Benchmarks) MRCPCH American and Canadian board

IV. Program admission requirements:

- Specialists in pediatirc (e.g Master degree)
- Basic Scanning experience is recommended.

IV. Program Structure and contents:

Program duration: 3 year..

Program structure: Total Credit points 180 credit points

- **First part: 6 months - (Table 1) 56 credit points**

Candidates should fulfill the following:

- **Compulsory courses:** **total points 5**
  - -Physiology&Microbiology 0.5 credit points
  - -Pharmacology &Pathology 0.5 credit points
  - Basic of Pediatric medicine. 1 credit points
  - Medical Reports. 0.5 credit points
  - -Clinical Pathology 2 credit points

  An exam (written, oral and practical) will be organized at the end of the course in each of the academic departments.

- **Elective courses total points 1**

  Candidate should choose 2 subjects from the following:
  - Public Health & Radiology 1/2 credit point
  - Research methodology 1/2 credit point
  - 1/2 credit point

- **Scientific activities** 3 credit points
- **Residency training program (phase 1)** **40 credit points**

- **Second part: 1.5 years – (Table 2)** 81 Credit Points

Candidate should fulfill the following:

- **Compulsory courses:** **total points 12**
  - Pediatric Medicine(advanced) 5 credit points
  - Pediatric Medicine(advanced) 5 credit points
  - PICU **2 credit points**
- **Elective courses:** **total points 1**

  Candidates should choose 1 subject from the following:
  - Abdominal ultrasonography 1 credit point
  - 1 credit point

- **Scientific activities** 4 credit points
- **Residency training program (phase 2)** **64 credit points**
- **Master Thesis: completed during the second part** **20 credit points**

Table 1: (phase 1)

Courses	Credit points	Total	ILOs
Compulsory courses (One academic year)			
Pediatric **Neonatology** **ENDM 805**	2	2	A 1,2,3,5,8, B1
Emeregency mediciaine **ENDM 804**	2	2	A 6,B2
Pediatric **Pulmonology** **ENDM 806**	1	1	A 1,2,3,5,8,B1
Pediatric **neourology** **ENDM 807**	1	1	A10

Pediatric Cardiology ENDM 808	1	1	A 6,B2
Pediatric hematology ENDM 803	1	1	A 4.,5,8
General Medicine ENDM 811	4	4	A1-9,B4
Elective Courses(2 elective courses)			
Critical reading **MEDC1** Research methodology **MEDC2** Evidence based medicine **MEDC3** Medical statistics**MEDC4** Medical ethics **MEDC5** Communication skills **MEDC6**	0.5 0.5 0.5 0.5 0.5 0.5	1	C1-8,D1-9
Scientific activities	3		
Residency training program (Phase 1)	40		

Table 2: Part 2

item	Credit points	ILOs.

Courses **Pediatric hematology** (2 semesters–2 modules)	5 5 5 5	A1-10,B1-7,C1-8, D1-9
Scientific activities	4	C1-8
Clinical practice	64	A1-10,B1-7,C1-8, D1-9

Resident Training Program:

Phase 1 training :

According to the new bylaws, July 2009 for post graduate programs, all students should have clinical training for 18 months. They will spend 6 months in PICU medicine, 6 months in the emergency department, 6 months in NICU department. During this period the students will attend compulsory first part courses and they will complete the elective courses.

Phase 2 training:

All students should complete the second part of the residency training (phase 2) program in the **Pediatric** department. Candidates will have to attend on full time basis 8 hours daily, six days a week for 18 months. The student is expected to be trained under the supervision of senior staff members. The training rotation should concentrate on acquiring practical (hands on) skills in various procedures in addition to applying the practical knowledge in interpretation of investigations results and their impact on patient care.

Scientific Activities (4 credit points):The students should participate in the scientific activities of the departments such as:

- Journal clubs (presenting scientific articles) once every one- two weeks.
- Seminars (including recent topics and controversial issues) once weekly. Students are expected to participate in the discussions.
- Scientific meetings arranged by the department
- Attendance of Thesis discussions
- Conferences
- Workshops

Each activity will be monitored and given credit points registered in a Resident logbook. The student should collect the required points before being allowed to sit for final exam.

Master Thesis (20 credit points): All master-degree students should prepare a thesis in one of the **Pediatric .** The department and the ethical committees must approve the protocol of the research. The thesis should include a review part and a research part. The Thesis is supervised by one or more senior staff members from the Endemic Medicine Department and may include other specialties according to the nature of the research.

V. Regulations for progression and program completion

After finishing the first part of residency training, attending the specified courses and collecting the required credit points, the prerequisite for entry the final examination is 75% attendance of the lectures as shown in the attendance book (Log book).The student should pass the first part examination including the basic sciences and general medicine before proceeding to the second part. In case the student fails to pass the exam, he may proceed in the clinical training and can resubmit for the next examination. After passing the first part, the student submits a protocol for master thesis at the beginning of second part. Before submitting to the final exam, he should finish the thesis and get approval**,** complete phase 2 of special training program, and collect the required credit points. The candidate will receive his degree after passing this final examination. Master degree should be obtained within a maximum of 6 years after registration date.

VI. Assessment

According to the bylaws of the residency, professors carry continuous assessment during the program. A residency-training program logbook will be kept for each student to document all his/her clinical, laboratory and/or operative/procedural activities as well as his/her participation in different scientific activities. The head of the department should allow the students to undergo the final examination when they complete their training program and collect the credit points needed.

- **Assessment tools include:**
    1. Log book75% attendance

2. The final exam is as follows:
    i. **Written examination:** The exam is set by a committee of 2 senior professors headed by the head of the department
    ii. **Clinical exam:** The exam is attended by 1 professors and an assistant professors .Cases are chosen by 2 professor and an assistant professor
    iii. **Oral examination:** The exam is attended by a committee of 1 professors and an assistant professor for each student.
    iv. **Practical exam:** is prepared by 2 professors and 2 assistant professors
    v. **OSCE :**is prepared by 5 professors and 5 assistant professors

FIRST PART

- Physiology + Medical biochemistry and molecular biology written exam 2 hours duration and an oral exam
- Clinical Parasitology + Microbiology and immunology written exam 2 hours duration and an oral exam.
- Clinical pharmacology written exam 1 hour duration and an oral exam
- Pathology (General, GIT and liver) written exam 1 hour duration and an oral exam
- Elective courses attendance and pass or fail exam

Subject	Exam marks			Duration of written exam	Total
	Written	Oral	Clinical		
Emergency medicine	80	70	-	2 hours	150
NICU	80	70	-	2 hours	150
Pediatric hematology	30	20	-	1 hour	50
Pediatric NEOUROLOGY	30	20	-	1 hour	50
PICU	100	50	50	1 hour	200
Elective courses: (at least 2)			Attendance and pass or fail		

SECOND PART

- Advanced pediatirc diseases: written exam duration of the exam 3 hours, and an oral exam, practical exam, and a clinical exam.
- Elective courses a written exam of 1 hour duration and a clinical exam.

The thesis

The thesis should be evaluated and approved by a committee of three professors including one of the supervisors and an external professor.

VII. Evaluation of program intended learning outcomes:

We are currently developing a questionnaire and probing the possible mechanism to obtain a feedback from the current locations' establishments of course graduates.

Evaluator	Tool	Sample
1.Senior Students	Questionnaire	All students after exam
2.Alumni	Alumni office is under construction	
3.Stakeholders	Annual meeting	
4.External Evaluators	During the final exam	Other universities staff members

Date of approval by department council

Signatures

Program Coordinator

PROF/Bahaa Elhawary

Head of Department