

## **Neonatal Paediatrics**

Neonatology is the rapidly developing subspecialty in the domain of Paediatric medicine. It deals with diseases of the newborn including term, preterm and low birth weight babies. It deals with both newborn physiology as well as its pathology. It constitutes a group of specialised professionals working in intensive care area with technically advanced equipment, and utilisation of these services for the care of sick babies.

Growing awareness of the unique characteristics of perinatal disorders led to establishment of NICU at AKUH. Rapid advances in normal and abnormal body functions of a neonate and increased capacity to apply this knowledge have emphasised the need for appropriate setting in which care can be provided to seriously ill newborn babies with various medical and surgical complications. Infant mortality and neonatal mortality has improved in the developed part of the world by improving newborn practices. Improving newborn care will ultimately bring down the mortality in the developing countries too.

The first post-residency Fellowship Programme in Neonatology was started at Aga Khan University Hospital (AKUH) in October 1998, under the Directorship of Professor Zulfiqar A. Bhutta and a team of 3 members looking after sick babies in NICU. CPSP has also approved the Fellowship programme. Currently the programme is run by a team of Neonatologists including Professor Iqtidar A. Khan (Director of Neonatal services), one Assistant Professor and one Senior Instructor. This programme enables the Fellows, upon successful completion, to sit for FCPS examination in Neonatal Paediatrics.

### **Objective**

Our programme aims to provide training to a qualified Paediatrician about the care of very sick newborns including state of art training on the ventilatory management of these patients. At the end of the training, the candidates are expected to acquire the knowledge and skills necessary for managing a broad spectrum of neonatal clinical problems. The Fellows are also fully conversant with the perinatal problems of developing countries like Pakistan. Ultimate outcome is to produce academically qualified and highly competent Neonatologists who have sound knowledge, skills of critical thinking and implementation of evidence based medicine in this highly specialised and evolving field of newborn medicine.

Our programme is one of the few in the country providing Neonatal Fellowship. Ours was the first to start the Fellowship programme in this field. It is indeed the largest Fellowship programme with 2 fellows on board at a time. It is the centre with multidisciplinary groups taking care of the babies, including paediatric surgeons, paediatric cardiologist and paediatric neurologist.

By acquiring skills in the management of sick term and premature babies, graduated fellows will be able to secure leading positions in different institutions, both in the government as well as private sectors.

The selection committee of the Department of Paediatrics selects one fellow every year after undergoing interview and evaluation. We have five paediatricians till now who have graduated from our fellowship programme. One of our graduates has been appointed as a Senior Instructor at Aga Khan University Hospital, two graduates are working as Neonatologists at the National Institute of Child Health Karachi, one is in Saudi Arabia and another in Children Hospital Quetta. All of them are Neonatologists in charge of NICU.

## **Duration of Training**

The programme offers a two-year fellowship in Neonatal Paediatrics.

## **Eligibility**

- MBBS or equivalent degree approved by PM&DC;
- One year of house job or internship;
- Three years Paediatric training/residency;
- FCPS (Paediatrics).

## **Fellowship Rotations**

- Level II (10 months)
- Level III (10 months)
- Perinatal/Paediatric Surgery (1 month)
- Ambulatory (1 month)
- External electives (2 months)

## **Scope And Content**

### **a. Clinical Training and Didactics:**

The fellow will primarily work in the three neonatal care areas (Intensive Care Unit, Step-down Unit, and Well Baby Nurseries) plus delivery suites. He/she will conduct clinical rounds with the concerned faculty members.

The fellow will be primarily responsible for organising the Perinatal Mortality and Morbidity Audit meetings and for maintaining the audit register.

The fellow will be responsible for clinical supervision of the residents in neonatal care areas. He/she will also take the primary neonatal consults in ER and other services and discuss them with the concerned consultant medical staff.

The fellow will be responsible for overseeing clinical assignments and work allocations for neonatal residents.

He/she will be required to make journal club presentations, present clinical reviews, and participate in ongoing research activities. Bi-weekly meetings will be held for this purpose and will be attended by the neonatal faculty and fellows.

The fellow will be encouraged to attend the national paediatrics and perinatal conferences. Some funding may be reserved for travel for this purpose.

The fellow will be required to develop, undertake, and complete a research project in perinatal care /neonatology during the course of the fellowship and publish a paper in Peer Review Journal. The fellow will be first-on-call for NICU. In their initial months, in-house calls may be necessary as determined by the programme director. The programme director will provide feedback to fellows, along with suggested extra reading, remedial, or course work.

### **b. Evaluation:**

The following assessment methods are employed:

- Continuous evaluation, bi-annual collation of evaluation and feedback by Chair of Fellowship Committee
- Written examination and problem-solving exercises (biannual)

### **Positions Available**

One position is available every year.

### **Administrative Set-up**

### **Full Time Faculty**

#### **Professors**

Dr Zulfiqar A. Bhutta *T.I.*

MBBS Peshawar; DCH London; FRCP Edinburgh; FCPS Pakistan; FRCP CH UK; PhD Karolinska

Dr Iqtidar Ahmad Khan

MBBS Peshawar; DCH Glasgow; FRCP Ireland; Fellowship in Paediatrics Nephrology, Canada

#### **Associate Professors**

Dr Mehnaz Atiq

MBBS Marathwada, FCPS Paediatrics and Paediatrics Cardiology, Pakistan

Dr Shahnaz H. Ibrahim

MBBS Karachi; FCPS Pakistan

Fellowship in Neurology, Toronto

Dr Arif Mateen Khan

MBBS Karachi; FRCS Glasgow

Dr Zafar Nazir

MBBS Punjab; FRCS Edinburgh and Glasgow

FCPS Pakistan

#### **Assistant Professors**

Dr Muhammad Sohail Salat

MBBS Karachi; DABP, FAAP USA

Diplomate American Board of Paediatrics

Fellowship in Neonatology USA

#### **Senior Instructors**

Dr Shabina Ariff

MBBS Baqai; FCPS Pakistan

### **Part Time Faculty**

#### **Senior Lecturer**

Dr Shabbir Hussain

MBBS Karachi; FRCS Edinburgh

#### **Lecturer**

Dr Muhammad Arshad

MBBS Punjab; FRCS Glasgow and Edinburgh