



MGM INSTITUTE OF HEALTH SCIENCES

(Deemed University u/s 3 of UGC Act, 1956)

Grade 'A' Accredited by NAAC

Sector-01, Kamothe, Navi Mumbai - 410 209

Tel 022-27432471, 022-27432994, Fax 022 - 27431094

E-mail : registrar@mgmuhs.com | Website : www.mgmuhs.com

MGM 112 FELLOWSHIP IN NEONATOLOGY

PROGRAMME OUTCOME

The objective of this program is to provide the trainee with the knowledge and expertise to be successful in clinical, research, teaching and administrative activities in the pediatric sub-specialty of Neonatal Prenatal Medicine. The program provides a progression in clinical responsibilities as the trainee advances through the one -year program. Sufficient practical experience is provided with a wide variety of patients in the delivery rooms, the NICU, and the developmental follow-up clinics. Under the supervision of a large and diverse faculty, trainees gain exposure to babies with a broad spectrum of clinical problems and gestational ages. Learning from direct patient care is augmented by a comprehensive series of lectures focused on neonatal medicine. Additional seminars provide training in communication, ethics, and practice administration. Fellows receive ample opportunities to provide newborn resuscitation and to learn all of the common procedures employed in neonatal medicine. Fellows in our program develop the clinical skills necessary to prepare them to competently and confidently manage the broad spectrum of conditions that fall within the practice of neonatology

COURSES OUTCOM

Fellowship is self-Study based, interactive and coordinated approach

Neonatal: A. to know about Demography and Neonatal Health Programme

- Vital statistics, health system
 - Causes of neonatal and perinatal mortality
 - Neonatal care priorities
 - Care at primary health center

- Care of secondary level
- Role of different health functionaries
- National programmes pertaining to newborn care

B. To revise and consolidate Basic Sciences

- Feto-placental physiology
- Neonatal adaptation
- Fluid and electrolyte balance
- Blood gas and acid base disorders
- Thermoregulation and kangaroo Mother Care
- Basic science related to systems

C. To gain information Fetal Medicine

- Fetal and neonatal consequences of high-risk pregnancy
- Fetal monitoring: Clinical, electronic, invasive and non-invasive
- Intrapartum monitoring and procedures
- Medical diseases affecting pregnancy and fetus
- Fetal nutrition and growth
- Birth defects

D. to have experience of General Neonatology related to practice in community

- Neonatal resuscitation
- Birth injury and birth asphyxia
- Normal newborn and common neonatal problems
- Preterm and low birth weight neonate
- Bioethics in Neonatology
- Pain Management
- Stress in NICU, Prevention and Management
- Assessment of gestation, neonatal behavior, neonatal reflexes
- Developmental assessment, detection of neuromotor delay, developmentally supportive care
- Immunization including immunization of a preterm neonate
- Discharge planning
- Follow - up of high- risk neonate
- Neonatal transport

- Neonatal equipment
- Neonatal Procedures
- Organization of neonatal care including level I, II care

E. To get acquainted with Systemic neonatology

1. Respiratory System

- Developmental biology, Pulmonary Surfactant
- Examination and interpretation of respiratory signs and symptoms
- Congenital malformations of respiratory system
- Pulmonary diseases: Hyaline membrane disease, transient tachypnea, pulmonary hemorrhage,
- Persistent fetal circulation, developmental defects Meconium aspiration syndrome
- Apnea
- Oxygen therapy and its monitoring
- Neonatal ventilation: principles and practices
- Pulmonary infections

2. Cardiovascular System

- Fetal circulation, transition from fetal to neonatal physiology
- Examination and interpretation of cardiovascular investigations
- Congenital heart diseases
- Shock: pathophysiology, monitoring, management
- Congestive cardiac failure
- Persistent Pulmonary Hypertension of the Neonate (PPHN)
- Patent Ductus Arteriosus (PDA)
- Hypertension in neonates
- Other cardiac disorders

3. Gastrointestinal system and hepatobiliary system

- Disorders of liver and biliary system
- Bilirubin metabolism
- Neonatal jaundice: diagnosis, monitoring, management (Phototherapy)
Exchange transfusion and others)
- Conjugated hyperbilirubinemia
- Congenital malformations
- Necrotizing enterocolitis
- Diarrheal diseases
- Gastro Esophageal Reflux
- Gastrointestinal Hemorrhage

4. Renal System

disorders

- Ambiguous genitalia
- Inborn errors of metabolism
- Other endocrine and metabolic disorders

6. Hematology

- Clinical evaluation of a neonate with hematological problems
- Anemia
- Polycythemia
- Bleeding and coagulation disorders
- Rh and ABO hemolytic disease
- Hydrops fetalis: immune and non-Immune
- Other hemolytic disease

7. Neurology

- Neurological evaluation

- Neonatal seizures
- Intracranial hemorrhage
- Hypoxic ischemic encephalopathy
- CNS malformation and neural tube defects
- Developmental assessment
- The Floppy Infant

8. Nutrition

- Breastfeeding
- Lactation management
- Lactation counselling and education
- Recommended daily requirements of nutrients
- Internal feeding in special situations including LBW/preterm neonate
- Vitamins and micronutrients in newborn health and disease
- Parenteral nutrition

9. Surgery, Orthopedics, dermatology, eyelet

- Neonatal surgical conditions
- Pre- and post-operative management
- Neonatal Orthopedic problems: Congenital and acquired
- Neonatal Ophthalmology- Retinopathy of prematurity, other
- Neonatal Dermatology – Common problems, life threatening conditions

10. Neonatal Infections

- Developmental Immunology
- Intrauterine Infections
- Perinatal HIV
 - Bacterial infection
 - Viral infections

- Fungal infections
- Septicemia
- Meningitis
- Osteomyelitis and arthritis



Dr. Rajesh B. Goel
Registrar

MGM INSTITUTE OF HEALTH SCIENCES
(DEEMED UNIVERSITY u/s 3 of UGC Act,1956)
NAVI MUMBAI- 410 209