

# MGM INSTITUTE OF HEALTH SCIENCES

Accredited by NAAC with 'A' Grade
(Deemed University u/s 3 of UGC Act, 1956)
Sector-01, Kamothe, Navi Mumbai - 410 209
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# Curriculum for Fellowship in Pediatric Intensive Care

(w.e.f. Academic Year 2018-19)

Approved as per BOM –53/2018, [Resolution No. 4.8], Dated 19/05/2018





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## FORMAT FOR SUBMISSION OF PROPOSAL/ FELLOWSHIP COURSE

1. Title of the fellowship :FELLOWSHIP IN PEDIATRIC INTENSIVE CARE

2. Duration of the fellowship: 1 year (12 Month)

3. Commencement (2 batches): a) 1<sup>st</sup> June, 2018

b) 1st December, 2018

OBJECTIVES OF THE FELLOWSHIP: To enhance knowledge and skills in intensive care area of Pediatrics in Doctors to bring out positive outcomes related to mortality and morbidity This fellowship course is planned keeping in mind the need of Pediatric intensive care being delivered to periphery, so that the Pediatrician trained as the Fellows at this institute will be able and confident delivering the PICU services to the hospitals/teaching institutes theywish to practice, with the state of the art knowledge and adequate experience.

- 4. Eligibility Criteria for Admission : MD.DCH, DNB Pediatrics
- 5. Intake Capacity in each batch:2
- 6. Admission/Selection Process/Procedure: PG NEET Score and personal interview
- 7. Fees:150000/-
- 8. Course Content: ANNEXURE I
- 9. Teaching Scheme (Total periods and periods allotted to each topic) ANNEXURE II
- 10. Complete Curriculum of the Course: ANNEXURE III
- 11. Textbook and Reference Books:
- 12. Scheme of Examination (in detail): (Pattern of exam/Passing criteria/ Award of fellowship)
- 13. Infrastructure required for conducting the course and its availability in the College/Hospital -90 bed Pediatrics WARD, 10 BED WELLEQUIPPED PICU
- 14. Modern imaging and diagnostic facilities
- 15. Faculty required (with qualification) for conducting the course:
  - Dr. Jeetendra Gavhane ,D.N.B. ,Profeesor Department OF Pediatrics
  - Dr. Vikram Patra, Asst . Profeesor Department OF Pediatrics
  - Dr. Vivek Bhagat M.D., Fellowship PICU(MUHS)

Dr Jectendra Gavhane

Head, Dept. Of Pediatrics

Dr Vijay Kamale

PROFESSOR & HOD

Depth of Paediatrics MGN stedical College Hospital, Kalamboli, Navi Mumbai - 418 218

#### PROGRAM OUTCOME

At the end of course candidate will know thoroughly about Emergency and critical Pediatrics. He will have basic training in Pediatric emergencies and intensive care. He will learn about Clinical skills in procedures, understanding equipments, monitoring and resuscitation independently.

#### **SYLLBUS:**

To learn Basic training in Pediatric emergencies and intensive care emergency resuscitation and Pediatrics advanced life support, and life saving procedures Common Pediatric emergencies.

- 1. To evaluate sick child in office and clinic
- 2. To learn about emergency medical services for children
  - Interfaculty transport of seriously ill or injured pediatric patient and principles applicable to the developing world
  - Emergency resuscitation
  - Taking care of a PICU child: basic nursing
  - Neurologic emergency and stabilization including brain death
  - Shock Diagnosis/Immediate evaluation/screening and
  - Respiratory distress and failure-mechanical ventilation and long term ventilation
  - Poisoning -diagnosis and management antidotes -Access to rare antidotes/literature/websites
     Neurological emergencies including ICP and coning)
  - anesthesia and analgesia, Trauma head injury and other surgical emergencies
  - Transporting a sick child
  - Investigations in PICU: including radiology Assessment-PRISM-PIM Score
  - Inborn errors of Metabolism:
  - · Clinical skills in procedures, understanding equipments, monitoring and resuscitation
  - Asepsis and anesthesia and decision making in PICU emergency procedures
  - Procedures in emergency medicine: tracheostomy, bronchoscopy,
  - Needle drainage, Rapid IV access, Rapid sequence intubation, Vascular / Central line access: Jugular, subclavian, femoral and cut down access, Arterial catheterization, Intraosseus line
  - Ventricular tap and VP shunt, Pleuro-and peritoneocentesis, Peritoneal dialysis
  - Difficult intubations Monitoring: Needs, modalities and action Resuscitation:
  - Basic physiology of respiratory system in a child
  - Safety and Bio waste managements
  - Record keeping in PICU
  - Procedures in emergency medicine: tracheostomy, bronchoscopy
  - Needle drainage, Rapid IV access, Rapid sequence intubation, Vascular / Central line access: Jugular, subclavian, femoral and cut down access, Arterial catheterization, Intraosseus line
  - Ventricular tap and VP shunt ,Pleuro-and peritoneocentesis, Peritoneal dialysis
  - Difficult intubations Monitoring: Needs, modalities and actionResuscitation:
  - Basic physiology of respiratory system in a child
  - Upper airway obstruction
  - Anaphylaxis
  - Asthma

- Bronchiolitis
- Cardiac emergencies: Cyanotic child, Cardiogenic pulmonary edema, cardiogenic shock, arrhythmias
- CNS emergencies: Convulsive status epilepticus, other encephalothic illnesses, diabetic ketoacidosis ,acute respiratory distress syndrome, raised ICP ,Approach in a case of suspected brain death
- Trauma: Traumatic brain injury, multiple injuries ,anesthesia and analgesiaTrauma head injury and other surgical emergencies
- Safety and Bio waste managements
- Record keeping in PICU

# CURRICULUM: TEACHING SCHEME:

6 month PICU

3 months allied posting: anesthesia, cardiac ICU,EMS 3months: PICU, with submission of research work

There are a series of regularly-scheduled conferences, seminars and lectures that trainees are required to attend:

Clinical Seminars Tuesday, Noon – 1 p.m.) – Faculty and local invited speakers deliver information on topics of special interest and updates on diagnosis and treatment of various pediatric disorders.

Resident/Fellow Core Lecture Series (Monday, 4-5 p.m.) – this series is designed specifically for residents and diagnostic laboratory fellows and covers a wide range of topics including basic concepts, population dynamics, genetic counseling/communication skills and specific lectures

Biochemical Results Review (Wednesday, 11 a.m. - Noon) - Laboratory directors & fellows and Metabolic faculty & residents review biochemical laboratory results from the prior week and discuss results and patient management.

<u>Post-clinic Conference</u> (Friday, 4-5 p.m.) – Selected patients from the outpatient and inpatients clinics are reviewed with video of salient findings and lab results.

 $\underline{\text{Grand Rounds}}$  (Wednesday, Noon -1 p.m.) – Genetics residents present an individual clinical case and discuss the diagnostic approach, prognosis and management.

Mortality meeting: first Thursday of every month 2 00 pm

#### RECOMMENDED TECTBOOK AND REFERENCE BOOKS:

- 1. Rogers' Textbook of Pediatric Intensive Care by Donald H Shaffner, MD, David G Nichols, MD
- 2. Pediatric Critical Care Study Guide: Text and Review Steven E Lucking
- 3. Textbook of Pediatric Emergency Procedures by Christopher King, MD (Editor), Fred M Henretig, MD (Editor), Brent R King, MD
- 4. Childhood Emergencies in the Office, Hospital, and Community: Organizing Systems of Care by American Academy of Pediatrics, James S Seidel (Editor), Jane F Knapp (Editor)
- 5. Nursing Care of the Critically Ill Child by Mary Fran Hazinski