

## 1. Fellowship in Paediatric Anaesthesia



### 1. Information Related to Course Content :-

**Programme Goals:** To enable Anaesthesiologists to recognize the anatomical, physiological and psychological differences in the sub-set of Paediatric patients. To train anaesthesiologists adequately to ensure safe delivery of anaesthesia to this vulnerable group of patients.

### Medical Knowledge and Curriculum:

- Physiology of the neonate, the premature and children.
  - Anatomic variations in neonates and children
  - Pharmacology and variations in neonates and children
  - Difficult airway management and devices used.
  - Paediatric Anaesthesia for Neuro, Plastic, ENT, Opthal, Uro, Cardiac cases.
  - High risk children: Those on ventilators, those with heart diseases, severe asthma etc.
  - Neonatal and paediatric emergencies: NEC (necrotizing enterocolitis), Diaphragmatic hernia, trachea-oesophageal fistula, volvulus, torsion testis, appendicitis etc.
  - Bronchoscopy for foreign body.
  - Fluid management in neonates, children and high risk patients
  - Local Anaesthetic Pharmacology as applied to children and neonates.
  - Neuraxial & systemic opioids, NSAID's, and non-opioid adjuncts for analgesia in children and neonates.
  - Spinal, Epidural, Caudal and Combined spinal epidural (CSE) Anaesthesia for pediatric and neonatal usage
  - Complications of anaesthesia and regional blocks in children: Recognition & Treatment.
  - Resuscitation
    - a) Paediatric
    - b) Neonatal
- **Anaesthesia for following Surgeries:** All surgeries in children and neonates including various sub-specialties. Paediatric surgery including neonatal surgeries, laparoscopic surgeries both in children and neonates; Plastic surgery including burns and cleft lip/palate; Dental surgery; ENT surgery including tracheostomies and bronchoscopy; Neurosurgery including VP shunts, trauma etc.; Orthopaedic surgery including congenital malformations and trauma.
- **Skills to be achieved during the course:** Placement of peripheral IV lines, placement of central lines, spinals, epidurals, caudals, peripheral nerve blocks. Management of difficult airway and use of alternative devices.
- **Interpersonal communication skills:** The fellows will develop their communication skills both with surgical colleagues and patients.
- **Academics :** Conducting Seminar / Case presentation /PBL
- **Evaluation Process:** Exam after completion of One year post & Theory – 100, Practical – 300 & Maintenance of Log book.
- **Research:** One study and/or one case report to be published (or submitted for publication), by the end of the course
- **Log Book:** A detailed log of all cases and procedures done to be documented
- **Selection Process :** Apply through DPU Website followed by personal Interview
- **Rotation:** Rotation to PICU and NICU for 1 week each.

### 2. Duration :\_1 year

### 3. Training Facilities:-

- i) Training in Anaesthesia for Paediatric surgeries Plastic, Ortho surgeries, ENT/Ophthalmology, Neuro Surgical, GIscopy, CT scan, Emergency surgeries.
- ii) Simulation lab, Training in PICU, NICU, Superspeciality Operation Theatre
- iii) Log book maintenance
- iv) Skills to be achieved placement of IV cannula central line caudal block, Arterial line Epidural , Peripheral Nerve block, Difficult Airway & alternative airways
- v) Teaching of fellows –
  - a) Conducting seminars
  - b) Case Presentation
  - c) Problem Based Learning
- vi) Presentations of poster/paper
- vii) Workshop Airway, PAL , PPLS

#### ➤ **Skill to be achieved by fellow**

- Preop assessment of all paediatric patient posted for surgery, post operative rounds.
- Paediatric IV cannulation
- Central line, Arterial line
- Regional blocks – Caudal Epidural block
- Upperlimb & lower limb blocks
- PALS training/Resuscitation
- On call duties

### 4. Teaching Faculty Details:-

Name:- Dr. Chhaya Suryawanshi, Professor & Head of Department

Qualifications: – MBBS, MD, Anaesthesiology, Registration No. – 69085

Name: - Dr. Sonal Khatavkar, Professor Anaesthesiology

Qualifications: – MBBS, DA, DNB, Fellowship in Paediatrics Anaesthesia, Registration No. – 85336

Name:- Dr. Shweta Singh, Assistant Professor Anaesthesiology

Qualification:- MBBS, DA, DNB Anaesthesiology, Registration No. – MMC 2019010114

### 5. Infrastructure:-

- i. Ultra modern Operation Theatres – Speciality/ Superspeciality
  - ii. Paediatric equipments – BIS ,TOF
  - iii. Paediatric monitors
  - iv. Airway equipments
  - v. C –mac blades
  - vi. USG machine
  - vii. Warming devices
  - viii. Simulation lab
  - ix. Library
- **Institution framework:** The hospital should have a full fledged paediatric and neonatal departments including NICU and PICU. There should be round the clock availability of paediatrician and Anaesthesiologist. A minimum of 50 paediatric surgeries should be done per month (including all sub-specialties like ENT, Dental etc). There should be reasonable equipment and monitoring available

for safety of the anaesthesia process. (a list of essential equipment and monitoring can be compiled)

- **Utility:** On completion of course, fellows should be able to incorporate the latest advances in anaesthesia in the sub-specialty of paediatrics and perform safe anaesthesia for surgeries in children and neonates, thus help reduce Child Mortality.
  
- **Essential Equipment to be available:**
  - Each patient monitoring: NIBP, ECG, SPO<sub>2</sub> Probe, ETCO<sub>2</sub>, Temperature probes and availability of invasive monitoring.
  - Transport monitor and incubator.
  - Defibrillator (one for the OT complex).
  - Warming devices: Blowers, OT temperature adjustment, radiant warmers, fluid warmers etc.
  - Difficult airway equipment: LMA, other supra-glottic airway devices, IGEL, nasopharyngeal and oral airways of all sizes.
  - Desirable equipment: Portable ultrasound, Stimuplex (for nerve blocks), PNS (for twitch monitoring of relaxant reversal), fibre-optic bronchoscope (size 2.2, 2.7 etc).

**6. Fees :** 1,00,000/- (Rupees One Lakh Only)