**CRITICAL CARE MEDICINE FELLOWSHIP PROGRAM FOR FOREIGN NATIONALS**

NH Health City, in Bengaluru is one of the largest Critical Care Service providers in the world.

We have approximately 400 functional Critical care adult and Paediatric Critical care beds in our centre.

The above mentioned fellowship student will be exposed to 75 bedded Medical Intensive care unit, 40 bedded Adult Coronary Care unit and 40 bedded Adult Cardiac Surgical Intensive care unit.

**Student eligiblity criteria is PG in General Medicine , Anaesthesiology, Respiratory Medicine or or any other equivalent degree recognised by NMC from any other country.**

**The fellowship in Critical Care Medicine will involve training in:**

-Respiratory and Cardiovascular

* Management of airways (including respiratory arrest, upper airways obstruction, smoke or burns airways damage), pulmonary edema, adult respiratory distress syndrome and hypercapnic respiratory failure, severe asthma, chest trauma, respiratory muscle disorders, thoracic surgery

-Neurology and Neurosurgical

* Coma, head trauma, intracranial hypertension, cerebrovascular accidents, cerebral vasospasm, meningo-encephalitis, acute neuromuscular disease (including myasthenia & Guillain Barre syndrome), post anoxic brain damage, acute confusional states, spinal cord injury, neurosurgery, brain death.

-Metabolic & Nutritional

* Fluid electrolyte and acid-base disorders, endocrine disorders (including diabetes), nutritional requirements, monitoring of nutrition.

Haematological

* Disseminated intravascular coagulation and other coagulation disorders, haemolytic syndromes, acute and anaemia, blood component therapy, immune disorders.

Infections

* Severe infection due to aerobic and anaerobic bacteria, viruses, fungal and parasites, nosocomial infection, infection in the immunocopromised, tropical disease, antimicrobial therapy, immunotherapy and infection control in ICU.

Gastro-intestinal

* Inflammatory bowel diseases, pancreatitis, acute and chronic liver failure, prevention and treatment of acute G.I. Bleeding (including variceal bleeding) peritonitis, mesenteric infarction, perforated viscus, bowel obstruction, abdominal trauma, abdominal surgery.

Obstetric

* Toxemia (including in HELLP syndrome), amniotic fluid embolism, eclampsia, and haemorrhage.

Environmental Hazards

* Burns, hypo-and hyperthermia, near-drowning electrocution, radiations, chemical injuries, animal bites.

Toxicology, poisoning

* Acute intoxications, drug overdose, serious adverse reactions, anaphylaxis.

General

* Pharmacology, pharmacokinetics and drug interactions. Analgesia, sedation and muscle relaxants, inflammation and anti-inflammatory agents, multiple trauma, transport of the critically ill, multisystems disorders (including Multi-Organ Dysfunction syndrome MODS and the Systemic Inflammatory Response Syndrome SIRS) Management of the organ donor.

**Interventions and procedures**

Respiratory

* Maintenance of open airway, endotracheal intubation (oral and nasal) and emergency cricothyrotomy, insertion of supraglottic airway devices, percutaneous tracheostomy, , suctioning of the airway, setting and turning of the respirator with different modes of ventilation, titration of oxygen therapy, use of ambubag, techniques of weaning from mechanical ventilation, placement of a intercostal tube, implementation of respiratory pharmacological support, fiberoptic bronchoscopy, interpretation of arterial and mixed venous blood gases, assessment of gas exchange and respiratory mechanics.

Cardiovascular

* Placement of a central venous catheter (by different routes), cardiac output monitoring, arterial catheter (by different routes) measurement and interpretation of the hemodynamic variables (including the derived variables), implementation of cardiovascular support antiarrhythmic therapy and thrombolysis.

Neurologic

* Basic interpretation of brain CT/MRI scan, intracranial pressure monitoring.

Nutrition

* Metabolic and Nutritional Implementation of intravenous fluid therapy, enteral and parental nutrition.

Haematologic

* Correction of haemostatic and coagulation disorders, interpretation of a coagulation profile, implementation of thrombolysis.

Renal

* bladder catheterization, renal replacement techniques.

Gastro-intestinal

* Placement of gastric tube, an esophageal and gastric tamponade balloon

Communication Skills

* Tackling angry/agitated relative
* Counselling of relatives of critically ill patient
* Breaking Bad news
* Counselling for organ donation

Radiology

* Interpretation of Chest Xray
* Interpretation of CT scan and MRI
* Interpretation of Sonography

Extracorporeal Therapy

* ECMO
* CRRT

Academics

* General Measurement of severity of illness and outcome assessment. Exposure to clinical research, ethical and legal aspects of critical care.
* Participation in regional and national CME's seminars, and conference in critical care and affiliation with such critical care organizations is desirable.

**CRITICAL CARE MEDICINE TEAM**

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| Name & Designation | Eligible PG Qualification in the specialty |
| Dr. Ratan Kumar T Gupta | MBBS’89, MD’93(Anaes), DNB’94, PDCCA, MBA |
| Dr. Jose Chacko | MBBS'83, DA(Anaes)'88, MD(Anaes)'93. |
| Dr. Sanjay Orathi Patangi | MBBS'91, DA'(Anae)'95,MD'(Anaes)'97, DNB'(Anaes )99 |
| Dr. Kumarswamy G.N  | MBBS'93, MD (Anes)' 01, |
| Dr. Arjun Alva | MBBS'05, MD'10 (Anes) |
| Dr. Riyan S. Shetty | MBBS'05, MD(Anaesthesia)'09 |
| Dr. Jinay Gala | MBBS -(2005), DNB General Medicine(2011) |
| Dr. Karthiraj N | MBBS -(2000), DA Anae (2006), DNB Anae (2011), Fellowship Indian Diploma in Critical Care Medicine(2014), Fellowship European Diploma in Intensive Care(2015), Fellowship Indian Fellowship in Critical Care Medicine(2015) |
| Dr. Vimal Bhardwaj | MBBS'08, MD'12(Anes), FNB’16(Critical Care), EDIC |
| Dr. Chethan S | MBBS'09, MD (Anaesthesia)'13, DNB(Anaesthesiology)13, FNB(Critical Care)'16, |
| Dr. Manu Varma M K | MBBS -(2008), MD Anae (2013), PDCC Critical Care Medicine(2014), DM Critical Care Medicine(2018) |
| Dr. Shiva Kumar N | MBBS -(2008), MD Anae (2014), DM Critical Care Medicine(2019), DNB Anae (2014), EDIC Critical Care Medicine(2018) |
| Dr. Shreedhara NS | MBBS -(2009), MD Anae (2014), FNB Critical Care Medicine(2018) |
| Dr. Abhishek Samprathi | MBBS -(2011), MD Anae (2015), Fellowship Critical Care Medicine (2017), IDCCM Indian Diploma in Critical Care Medicine(2017), EDIC European Diploma in Critical Care(2019), DrNB Critical Care Medicine (2022) |
| Dr. Bhavna P Singh | MBBS -(2011), MD Anaesthesiology, Pain, and Critical Care(2015), FNB Critical Care Medicine(2018) |