

Name of the Course: Post Doctoral Certificate Course (PDCC)
in Neuro Anaesthesia and Neuro Critical Care

- I. **Eligibility: (Basic Qualification for admission)** — M.D/DNB.
Anaesthesiology from University recognized by MCI
- II. **Number of Candidates** — 2 per year
- III. **Duration of the course: 1 year**

IV. Syllabus

Basic Sciences

- Anatomy of the central & peripheral nervous system
- Physiology of Central Nervous System
 - a) Cerebral blood flow/metabolism
 - b) Cerebrospinal fluid dynamics
 - c) Intracranial pressure
 - d) Electrophysiology of CNS
- Pathophysiology of Cerebral ischemia/Traumatic brain injury
- Pharmacology of Anaesthetic/adjuvant drugs and emergency drugs
- Basics of statistical Methods/Research methodology

Clinical Sciences

- Anaesthetic Management of :
 - a) Brain tumours
 - b) Neurovascular surgery
 - c) Hydrocephalus
 - d) Spinal surgery
 - e) Surgery for epilepsy
 - f) Awake craniotomy
 - g) Neuroendoscopy
 - h) Head injury
 - i) Pituitary surgery
 - j) DBS and other functional neurosurgery
- Cerebral protection
- Stroke
- Intraoperative and Postoperative Monitoring
- Neurointerventional procedures
- Airway related issues in neuroanaesthesia

Monitoring:

- Cardiac
- Respiratory
- Neurological
- Renal
- Coagulation

Intensive care:

Respiratory management

- Principles of ventilatory management
- Pulmonary edema –
- Adult respiratory distress syndrome
- Severe asthma and COPD
- Respiratory infections community and hospital acquired
- Chest trauma

Principles of cardiac and haemodynamic management

- Haemodynamic instability and shock
- Cardiac arrest
- Common arrhythmias and conduction disturbances
- Pulmonary embolism

Neurology

- Coma
- Status epilepticus
- Head trauma
- Subarachnoid haemorrhage
- Intracranial hypertension
- Cerebrovascular accidents and cerebral vasospasm
- Post anoxic brain damage
- Spinal cord injury
- Neurosurgery and post-operative care
- Brain death
- Stroke

Renal

- Oliguria/ anuria
- Acute renal failure
- Renal replacement therapy (RRT)
- Continuous RRT
- Metabolic and Nutritional
- Fluid balance
- Electrolyte balance and its disorders
- Acid-base disorders
- Endocrine disorders (including diabetes mellitus, acute adrenal insufficiency, pituitary disorders, hyper and hypothyroidism)

Prabh
26.8.2019

PROFESSOR & HEAD
Deptt. of Anaesthesiology
K.G.'s Medical University U.P.
LUCKNOW-226 003

Mawes
PROFESSOR
Deptt. of Anaesthesiology
K.G.'s Medical University U.P.
LUCKNOW-226 003

- Neurologic Multimodal Monitoring
- Echocardiography in the Intensive Care Unit
- Mechanical ventilation in neurological patients
- Haemodynamic management in a neuro-ICU patient.
- Fluid & electrolyte management in neuro-ICU patient
- ICP monitoring 11
- TCD monitoring
 - Basics interpretation of EEG, Evoked potential
- Management of blood gases and acid – base status
- Infection control in a neuro – ICU
- Bedside echocardiography Diagnostic:- Ultrasound evaluation of critically ill patients

Monica Kohli

Dr. Monica Kohli
Professor
MD, PDCC

PROFESSOR
Deptt. of Anaesthesiology
K.G.'s Medical University U.P.
LUCKNOW-226 003

Anita Malik
26.9.2019

Dr. Anita Malik
Professor & Head
Department of Anaesthesiology
K.G.M.U Lucknow

PROFESSOR & HEAD
Deptt. of Anaesthesiology
K.G.'s Medical University U.P.
LUCKNOW-226 003