

**THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY**

**[DM 0124]**

**JANUARY 2024**

**Sub. Code :1518**

**D.M. – NEURO ANEASTHESIA**

**PAPER – III – NEURO ANEASTHESIA INCLUDING NEURO TRAUMA,  
NEURO CRITICAL CARE AND COMORBIDITIES**

*Q.P. Code: 161518*

**Time: Three Hours**

**Maximum: 100 Marks**

**I. Elaborate on:**

**(2 x 15 = 30)**

1. Discuss in detail the Guidelines for the Management of Traumatic Brain Injury.
2. Discuss in detail the goals, principles, monitoring techniques and various treatment modalities used for sedation in the Neuro Intensive Care Unit.

**II. Write notes on:**

**(10 x 7 = 70)**

1. Discuss the evidence the role of Brian tissue Oxygen Monitoring in Traumatic Brian Injury.
2. Discuss the role of Decompressive Hemicraniectomy in reducing Intracranial Pressure.
3. Discuss the physiological principle and technique of Neurally Adjusted Ventilatory Assist (NAVA) mode of ventilation.
4. Discuss in brief the approach to hyponatremia in the Neuro Intensive Care Unit.
5. Discuss the role of Continuous Electroencephalogram monitoring in Neuro Intensive Care Unit.
6. Discuss the anaesthetic considerations in a patient with Acromegaly planned for Trans nasal Trans Sphenoidal approach for excision of pituitary macoradenoma.
7. Discuss in brief the aetio-pathophysiology of Neurogenic Pulmonary Edema.
8. Discuss the role of Isoflurane in Super Refractory Status Epilepticus (sRSE).
9. Discuss in brief the anaesthetic concerns at extubatiuon in a Posterior Fossa Craniotomy.
10. Discuss the challenges with Intraoperative Neuro physiological monitoring (IONM) in the Pediatric population.

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**THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY**

**[DM 0225]**

**FEBRUARY 2025**

**Sub. Code :1518**

**D.M. – NEURO ANAESTHESIA**

**PAPER – III – NEURO ANEASTHESIA INCLUDING NEURO TRAUMA,  
NEURO CRITICAL CARE AND COMORBIDITIES**

*Q.P. Code: 161518*

**Time: Three Hours**

**Maximum: 100 Marks**

**I. Elaborate on:**

**(2 x 15 = 30)**

1. Discuss in detail the role of multimodality monitoring in traumatic brain injury.
2. Define Death by Neurologic criteria and discuss in detail the ancillary tests to confirm brain death.

**II. Write notes on:**

**(10 x 7 = 70)**

1. Discuss in detail the indications, benefits and risk of barbiturate coma for treatment of raised intracranial pressure.
2. Discuss the practice advisory on anaesthetic care for Magnetic Resonance Imaging (MRI).
3. Discuss in brief the diagnosis and treatment of Syndrome of Inappropriate Secretion of Anti Diuretic Hormone (SIADH) in the ICU.
4. Discuss in detail the aetiology and management of post extubation stridor.
5. Discuss the role of cerebral micro dialysis in the injured brain.
6. Discuss the principles of an analgosedation in the neuro ICU.
7. Discuss in brief the recent concept of Early Brain Injury (EBI) after acute subarachnoid hemorrhage (aSAH).
8. Discuss the anaesthetic management of a 2 year old child with tetralogy of Fallot (TOF) presenting with cerebral abscess.
9. Discuss the role of various immune modulation therapy for the treatment of Myasthenia Gravis.
10. Discuss the risk factors and aetiopathogenesis of acute kidney injury in the neurocritically ill patient.

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**THE TAMIL NADU Dr. M.G.R. MEDICAL UNIVERSITY**

**[DM 0126]**

**JANUARY 2026**

**Sub. Code :1518**

**D.M. – NEURO ANAESTHESIA**

**PAPER III – NEURO ANEASTHESIA INCLUDING NEURO TRAUMA,  
NEURO CRITICAL CARE AND COMORBIDITIES**

*Q.P. Code: 161518*

**Time: Three Hours**

**Maximum: 100 Marks**

**I. Elaborate on:**

**(2 x 15 = 30)**

1. Elaborate on the role of Targeted Temperature Management in Neurocritical care.
2. Discuss in detail the pathophysiology of Traumatic Brain Injury (TBI) and the prehospital care of acute TBI.

**II. Write notes on:**

**(10 x 7 = 70)**

1. Discuss in detail the various measures to avoid venous thromboembolism in neurocritical care patients.
2. Compare and Contrast myasthenic crisis and cholinergic crisis.
3. Discuss in brief about the various diagnostic modalities available to establish diagnosis of vasospasm.
4. Discuss the role of EEG monitoring in the Neuro ICU.
5. Discuss in detail the algorithm for the treatment of cerebral desaturation.
6. Role of Immunomodulatory therapy in the treatment of Guillain Barre Syndrome.
7. How will you prevent, diagnose and treat Contrast Induced Nephropathy?
8. Compare and Contrast Full Outline of Unresponsiveness Score (FOUR) and Glasgow Coma Scale.
9. Discuss in detail the Brain Lung Interaction.
10. Elaborate on the External Ventricular Drain (EVD) Bundle.

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