



NEUROALLIANCE

(Neuromonitoring services at its best)

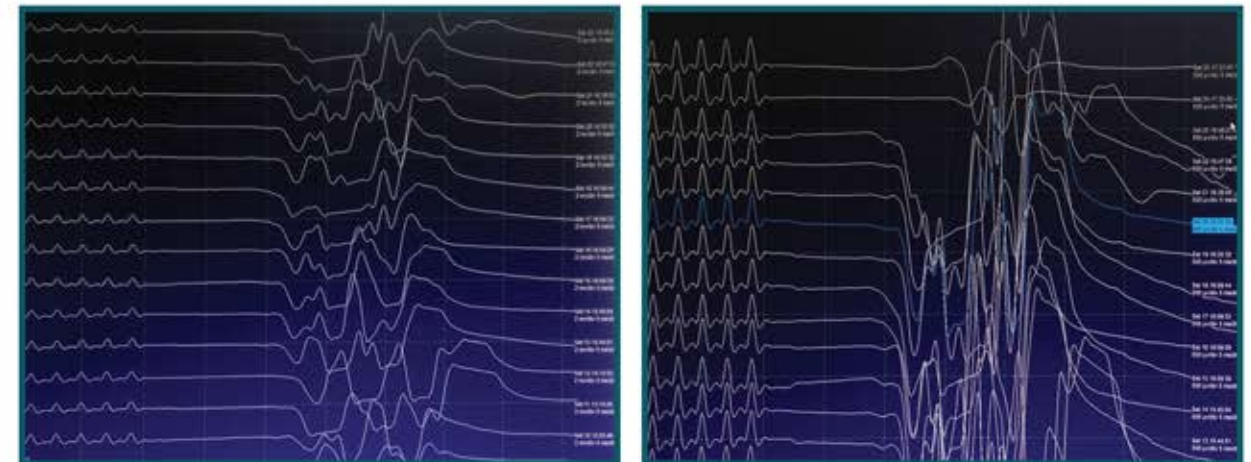


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1. What is spinal intra-operative monitoring (IOM)?

Intraoperative neurophysiological monitoring has been utilized to minimize neurological morbidity from surgery. The goal of is to identify changes in brain, spinal cord, and peripheral nerve function prior to irreversible damage.

- ▶ Detect neurological injury during surgery on brain, spinal cord or nerves
- ▶ Use of neurophysiological parameters for detecting changes which will alert if any surgically induced insults occur
- ▶ To assess the function of spinal cord transmission function during an operation



2. What are the monitoring modalities?

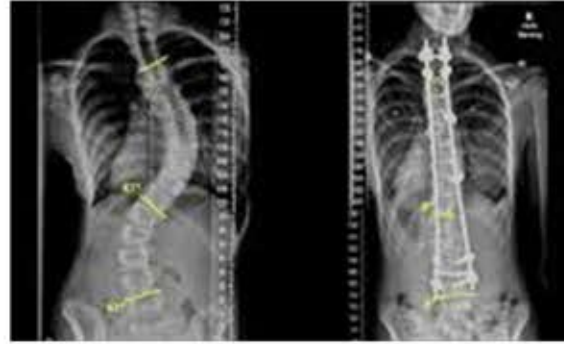
■ Evoked responses

- ▶ Sensory pathways : Somatosensory evoked potentials (SSEPs)
- ▶ Corticospinal tracts : Motor evoked potentials (MEPs)

■ Electromyography (EMG)

- ▶ Free-run
- ▶ Stimulated

■ “D waves” for spinal cord tumor surgery



■ Function mapping of cranial nerves especially facial nerve during nerve sheath tumour surgeries

Combined monitoring modalities such as SSEPs , MEPs and EMG has higher sensitivity and higher positive/negative predictive value than single modality techniques

3. Cases we monitor

SPINE:

- ▶ Cervical stenosis, fractures, fixation, herniated disks
- ▶ TB spine
- ▶ Scoliosis
- ▶ Spinal cord tumours

BRAIN:

- ▶ Brain tumours like acoustic neuroma
- ▶ Brain stem surgery
- ▶ Facial nerve sheath tumour

4. Who performs IONM?

Highly trained technologist from Neuroalliance is present in the operating theatre right from start setting up and monitoring throughout the surgery. He/ She is in constant interaction with surgeon and anesthetist to maintain optimal conditions for Intra-operative neuromonitoring.



In addition, there is a specialist neurophysiologist from Neuroalliance who will oversee this surgery either in theatre personally or remotely using the real time imaging.

5. Who is the Neuroalliance team?

- ▶ This is a partnership formed by Neurologists, Neurophysiologist and Neuro-surgeon along with highly trained technologist or electrophysiologist.
- ▶ We use state of the art neuro-monitoring technology and international standard protocols to monitor nerves and spinal cord.
- ▶ Neuroalliance has more than 5 years of experience in the field of intra-operative monitoring.
- ▶ Highly specialised Neurophysiologist / Neurologist will oversee all the procedures and sets up protocols for each surgery based on the needs of the neurosurgeon requesting for IONM.