

Continuous EEG Monitoring (cEEG)



NEUROTECH
cEEG Partners



cEEG provides critical information needed to make real-time patient care decisions and improve outcomes



Ongoing, real-time review of a patient's EEG identifying brain activity:

- Clinical and non-clinical seizures
- Neurological deterioration
- Brain ischemia
- Secondary brain injuries

Gap between clinical needs and available resources



- Nationwide shortage of Registered EEG Technologists (R. EEG T.)
- Very few EEG tech training programs available
- Few hospitals have 24/7 EEG technologist coverage

The Solution: 24/7 Monitoring, EEG Technologists, and Secure Facilities



Credentialed Professionals

- Experienced R. EEG T. and CLTM EEG Technologists
- Available within 30 minutes notice
- Consistent competency assessment
- Quality assurance program

Human Resource Considerations

- Cost directly related to use of service
- \$0 hiring cost
- \$0 scheduling expense

SOC2 Type II Compliant



- SOC2 Type II Comprehensive Certification with Systems and Controls Protocol
- Addresses security, availability, processing integrity, confidentiality, and privacy
- IT controls are set in place to keep sensitive data safe
- All R. EEG T. and CLTM staff members work from secure Neurotech office facilities
- HIPAA compliant
- Back up systems minimize interruptions during telecommunications and internet outages



Industry Research

- Studies in adult ICUs report that 19 to 37% of comatose patients have subclinical seizures ⁽¹⁾ ⁽²⁾
- In selected critically ill patients, ICU cEEG provides clear benefits over repeated routine EEG's and no EEG testing at all ⁽³⁾
- cEEG is favorably associated with patient survival in mechanically ventilated patients ⁽⁴⁾
- cEEG helps to evaluate predisposition for future seizures and to differentiate epileptic from nonepileptic paroxysmal events accurately ⁽⁵⁾
- The capability of cEEG to detect abnormalities has a significant bearing on patient management and prognosis ⁽⁵⁾



Neurotech Customized cEEG Solution

Accredited by the Joint Commission, Neurotech is an experienced remote monitoring EEG provider. Neurotech offers hospitals EEG monitoring solutions specifically designed to meet individual hospital needs. Offering both continuous and periodic review of EEG data through experienced R. EEG T. and CLTM certified technologists, Neurotech can provide hospitals with the cEEG services needed to maximize patient outcomes.

Neurotech

- Can remotely monitor ICU or EMU patients anywhere in the country utilizing Bomgar, Citrix, or other hospital approved technology
- Secure access through firewalls without VPN tunneling
- Each session encrypted with detailed audit trail
- HIPAA compliant; data protected with proactive security protocols compliant with all regulations

Periodic Review

- EEG and video data scanned at pre-determined intervals
- Physician notified of events after data is reviewed
- Impedance problems communicated
- Periodic, daily, and final reports sent to hospital per agreement

Continuous Monitoring

- 4:1 tech:patient ratio
- Real-time monitoring of EEG and video data
- Immediate notification of seizures or patient events as per hospital plan

Physician Interpretation

Partnering with academic physicians in many states, Neurotech can provide hospitals with 24/7 board certified neurologist EEG interpretations.

- Physician log in at least once every 24 hours and on-call 24/7
- Final interpretation
- Credentialing may not be required by Joint Commission accredited hospitals

(Consultative services are not included)



www.neurotecheeg.com



Research References:

- (1) Privitera M, Hoffman M, Moore JL, Jester D. (1994) EEG detection of nontonic-clonic status epilepticus in patients with altered consciousness. *Epilepsy Res* 18:155-166.
- (2) Claassen J, Mayer SA, Kowalski RG, Emerson RG, Hirsch LJ. (2004) Detection of electrographic seizures with continuous EEG monitoring in critically ill patients. *Neurology* 62:1743-1748.
- (3) Continuous electroencephalographic-monitoring in the ICU: an overview of current strengths and future challenges. Hilkman DM, van Mook WN, van Kranen-Mastenbroek VH.
- (4) Continuous and routine EEG in intensive care utilization and outcomes. United States 2005-2009 John P. Ney, MD, MPH, corresponding author David N. van der Goets, PhD, Marc R. Nuwer, MD, PhD, Lonnie Nelson, PhD, and Matthew A. Eccher, MD, MSPH.
- (5) Continuous Bedside EEG Monitoring Benefits Pediatric Patients Allows efficient detection of abnormal findings by Deepak Lachhwani, MD Cleveland Clinic