

Continuous electro-encephalographic (EEG) monitoring in the Intensive Care Unit:

A survey of Intensive Care Units Worldwide

SECTION I - DEMOGRAPHICS

- 1. Name of Hospital and Healthcare System** (for demographic use only – will not be published):

- 2. Location: City, State (if applicable), Country** (for demographic use only – will not be published):

- 3. Type of ICU (1)**

- ☐ Medical
- ☐ Surgical
- ☐ Neurological/neurosurgical
- ☐ Cardiac Surgery/Cardiac Care
- ☐ Trauma
- ☐ Pediatric
- ☐ Burns
- ☐ Multidisciplinary
- ☐ Other, specify _____

- 4. Characteristics of your institution (Per Halpern et al criteria)**

- ☐ Community, non-academic
- ☐ Academic, university based
- ☐ Public
- ☐ Military, or VA
- Other, specify _____

- 5. Size of the hospital based on number of total beds at your institution (Per Halpern et al criteria)(2)**

- ☐ Small to medium (<300)
- ☐ Large (301-500)

- ☐ Extra-large (>500 beds)
-

6. Size or total beds at your ICU (Per Halpern et al criteria)(3)

- ☐ ≤ 12
☐ 13-18
☐ 19-24
☐ ≥ 25

SECTION II – cEEG NEUROMONITORING TEAM

For the following questions, cEEG refers to EEG with and without video monitoring.

7. Is there a cEEG team on site at your institution?(4)

- ☐ Yes
☐ No
☐ Don't know
-

8. Is the cEEG team at your institution supervised by a "Team-leader(s)" ? (i.e. physician(s) with training and experience in clinical EEG)(4)

- ☐ Yes
☐ No
☐ Don't know
-

9. Please identify the typical designation of the cEEG "Team-Leader(s)"

- ☐ Neurologist
☐ Certification in clinical neurophysiology (American Board of Psychiatry

and Neurology [ABPN] or American Board of Clinical Neurophysiology [ABCN])

- ☐ Fellowship trained (i.e at least 1-year of post-residency training in clinical neurophysiology with a 6-month concentration in EEG and at least 3-months of cEEG)
 - ☐ Certification in epilepsy (ABPN, sub-epilepsy) (i.e. at least 1-year post-residency training in clinical neurophysiology or epilepsy)
 - ☐ Neuro-Intensivist
 - ☐ Certification in neurocritical care (UCNS) (i.e. at least 6 months post-residency full time training in EEG and at least 3 months of cEEG)
 - ☐ Other, specify
-

10. How many “Team-leaders” at your institution?

- ☐ 1-2
- ☐ 3-4
- ☐ ≥ 5
- ☐ Don't know

11. Can the cEEG Team Leader(s) access cEEG's in your ICU remotely ?(4)

- ☐ Yes
 - ☐ No
 - ☐ Don't know
-

12. Does the cEEG team also rely on “Team leader(s) designees to interpret cEEG in your ICU?

- ☐ Yes
- ☐ No

☐ Don't know

13. What type of designee(s)?

- ☐ Neurodiagnostic Technologists (NDT)
 - ☐ Residents, house-staff
 - ☐ Fellows
 - ☐ Other, specify
 - ☐ Don't know
-

14. Are there on site Neurodiagnostic Technologists (NDT) at your institution?(4)

- ☐ Yes
 - ☐ No
 - ☐ Don't know
-

15. What is the availability of your Neurodiagnostic Technologists (NDT) at your institution?(4, 5)

- ☐ In-house 24-hours a day
 - ☐ In-house part of the day with no overnight coverage
 - ☐ In-house part of the day and off-site (on call)
 - ☐ Off-site (on call)
 - ☐ Don't know
-

16. How many Neurodiagnostic Technologists (NDT) at your institution?

- ☐ 1-2
 - ☐ 3-4
 - ☐ ≥ 5
 - ☐ Don't know
-

17. If there is no onsite cEEG team at your institution, do you outsource?(4)

- ☐ Yes
- ☐ No
- ☐ Don't know

SECTION III – INDICATIONS

18. Please select all the indications for you which normally request cEEG in the ICU at your institution (Check ALL that apply) (4, 6)

- ☐ Diagnosis of non-convulsive seizures, non-convulsive status epilepticus, and other hyperkinetic paroxysmal events
- ☐ Assessment of efficacy of therapy for seizures and status epilepticus (convulsive and non-convulsive)
- ☐ Monitoring of sedation and high-dose suppressive therapy (sedative and anesthetic infusion)
- ☐ Assessment and severity of encephalopathy and prognostication
- ☐ Identification of cerebral ischemia
- ☐ Subarachnoid hemorrhage
- ☐ Brain injury with subsequent coma
- ☐ Research
- ☐ Other: Please specify:

SECTION IV – cEEG PROCEDURES

19. Does your institution/ICU have an established protocol to request cEEG based on indications, urgency, and duration of cEEG?(4)

- ☐ Yes
 - ☐ No
 - ☐ Don't know
-

20. Under ideal conditions, cEEG should be available 24 hours a day, seven days per week, with electrodes applied and EEG recorded by NTDs, with rapid interpretation by a "Team-leader".

Is this the case at your institution? (4)

- ☐ Yes
 - ☐ No
 - ☐ Don't know
-

21. How frequent is the cEEG report provided to the ICU team at your institution?(1, 4)

- ☐ Once a week
 - ☐ Once every 48-72 hours
 - ☐ Once a day
 - ☐ Twice a day
 - ☐ Continuous monitoring with real time updates as requested
 - ☐ Never or upon patient's discharge from ICU
 - ☐ Other, specify
 - ☐ Don't know
-

22. How are reports delivered to the ICU team? (1, 4)

- ☐ Hand written report in the hospital chart
- ☐ Electronic report entered into an electronic medical record (EMR)

- ☐ Report is verbally communicated to ICU team
 - ☐ Report is communicated to ICU team by SMS text or e-mail
 - ☐ Other, specify
 - ☐ Don't know
-

23. How often is there a change in clinical management based on the cEEG results?

- ☐ Never
 - ☐ Rarely
 - ☐ Sometimes
 - ☐ Frequently
-

24. During cEEG monitoring in your ICU, do you have Video recording capability? (4)

- ☐ Yes
 - ☐ No
 - ☐ Don't know
-

25. During cEEG monitoring in your ICU, do you have graphical display quantitative EEG (QEEG) capability? (4)

- ☐ Yes
- ☐ No
- ☐ Don't know