

NA-CLTM Report Requirements and Examples

The minimum requirements for NeuroAnalyst-CLTM candidate LTM reports follow ACNS Guideline 7 for EEG Reporting, inclusive of the following sections:

- History (**Required**)
- Technical Description (**Required**)
- EEG Description utilizing either ACNS 2012 or 2021 Critical Care Terminology and 2017 ILAE Seizure Classifications (**Required**)
- Impression (May be Optionally Included if this is the Facility Protocol)
- Clinical Correlation (May be Optionally Included if this is the Facility Protocol)

Please see the following examples of reports that would be acceptable. Note that as long as the required elements are present, the specific template of the report may vary.

ACNS Guideline 7 for EEG Reporting is available on the ACNS website:

<https://www.acns.org/practice/guidelines#electroencephalography>

EEG Long-Term Video Monitoring Report ABRET University Hospital

History

Patient Name: Tom Foolery
DOB: 01/20/1954
Age at Time of Recording: 65
Sex: male
Patient ID: 4321
Saint Pines Hospital EEG Number: 1080
Location: Critical Care Unit
Ordering Provider: Dr. Jones

Tom Foolery is an adult male transferred from outside hospital today. He is having episodes of altered awareness concerning for seizures. His medical history includes hypertension (controlled), diabetes mellitus, and two TIAs but he does not have a history of seizures. He has not had any recent radiological scans. This is his first-ever EEG. Current relevant medications: Keppra

Technical Description

Continuous digital EEG monitoring with concurrent synchronized video capture (cEEG) and single-channel electrocardiogram was performed in Critical Care Unit room 3 with XLTEK equipment. 23 electrodes were applied according to the International 10-20 system. Eye leads were not utilized. Data were obtained, stored, and interpreted according to ACNS guidelines (*J Clin Neurophysiol* 2016; 33 (4)) utilizing referential montage recording, with reformatting to longitudinal, transverse bipolar, and referential montages as necessary for interpretation, itself performed in room 18 (EEG Reading Room) on 01/02/2019.

Segments of the recording were reviewed with modified bandpass settings of 1 to 35 Hz and sensitivity of 3 microvolts per millimeter. Digital/automated EEG spike analyses as well as quantitative EEG (QEEG) trend processing were performed.

The patient was classified as NPO during the expanse of the recording. The patient was both somnolent and awake during the recording period.

The recorded period extended from 06:00 on 01/01/2018 through 06:00 on 01/02/2019.

EEG Description

- The Posterior Dominant Rhythm (PDR) was mildly slow at 7 Hz and 10-20 microvolts.
- The remaining asymmetric (as described below) background consisted of low voltage (10-20 microvolts) theta activities, maximally present over the frontal regions. An anterior-to-posterior gradient was not observed.
- Left fronto-central monomorphic low-amplitude delta slowing of very brief duration was frequently seen.
- Relatively-high voltage over the left fronto-central region was consistent with breach rhythm artifact.

- Sequences and reverse sequences of awake/drowsy and asleep transitions were noted. N1 and N2 sleep architecture was observed though a paucity of K complexes and spindles were noted.
- The single lead ECG indicated a normal sinus rhythm.
- Excessive diffuse EMG artifact was noted throughout the study.
- No epileptiform activity was captured.

Electrographic and Clinical Events:

- No clinical events were seen on video.
- No electrographic seizures were recorded.
- *Digital seizure/event analysis and detection did not reveal any seizures or additional foci.*

Preliminary Report Summary Completed by:

LTM SuperReader, R. EEG T., CLTM, B.S.
LTM EEG Analyst

**Daily Video-EEG Monitoring Report
Children's Hospital**

Patient Name:	Esther Bunny	MR # / Acct #:	MR01234567 / Acct 987654
DOB:	03/01/2018	Location:	EMU Room 1
Age on Recording date / Sex:	22 months/ Female	EEG Start Date & Time:	1/05/20 @ 09:51:10
Referring MD:	Dr. Comm Physician	Recording Session End:	Currently ongoing

Type of Study: Continuous Video EEG Monitoring 12-26 hours

Report Epoch: 01/05/20 @ 12:00 p.m. - 1/6/2020 @ 12:00 p.m. (24 hours)

**Technologist
Reviewer:** Annie Oakley, MS, R. EEG T., CLTM

Interpreting MD: Marcus Welby, MD

Clinical History

The patient is a 22-month-old female with a history of speech delay and new onset of spells described as sudden head movement forward, shoulder jerk. The patient may cry after the jerk occurs. These occur while awake and while asleep. Long term video EEG monitoring ordered to characterize these events.

Medications

none

Recording Conditions

VEEG monitoring was performed with ABC equipment in the Epilepsy Monitoring Unit at Children's Hospital. EEG monitoring was continuous with no greater than 1 tech: 4 patients. Disposable 10 mm silver-silver chloride disc electrodes were applied according to the International 10-20 System of Electrode placement utilizing the collodion application method. Data was obtained, stored, and reviewed according to ACNS guidelines (*J Clin Neurophysiol* 2006;23(2):85-183) using a digital reference and reformatting as necessary for interpretation. In addition, a single channel ECG was recorded using two electrodes on the chest. Digital spike and event analyses were recorded.

EEG Description & Daily Summary Report

Background EEG: The EEG was of good quality with occasional movement and EMG artifact. While awake, there was a bilateral and symmetric 7-8 HZ posterior dominant rhythm noted of normal amplitude. However, the majority of the background was disorganized, chaotic and demonstrated irregular high amplitude 1.5 – 2 HZ slow wave activity intermixed with very frequent irregular high amplitude (over 300 uV at times), generalized and independent multifocal spike and slow waves discharges. Occasional periods of relative generalized voltage attenuation were seen, lasting for about 1 second. During the



sleep recording, normal sleep features were not clearly identified, but rare fragments of sleep spindles were noted. Hyperventilation and Photic Stimulation were not performed. No ECG abnormalities were noted on a single lead ECG.

Interictal Abnormalities: As stated above, there was irregular high amplitude 1.5 – 2 HZ slow wave activity intermixed with very frequent irregular high amplitude (over 300 uV at times), generalized and independent multifocal spike and slow waves discharges.

Events: There were 3 typical events recorded at 22:00:44, 04:14:08 and 06:07:59. Clinically these events were consistent with clusters of multiple very brief spasms with arousal (head movement forward and brief tonic jerk of the shoulders, arms and sometimes legs.) which occurred 5-15 times a minute for 2-6 minutes.

With the larger jerks, the EEG typically showed a high amplitude sharp and slow wave followed by electro-decrement of 1-2 seconds and associated fast frequencies. Smaller jerks were at times associated with the high amplitude spike and slow wave discharges, but at other times they were not associated with any change in the background.

Preliminary Daily Summary Report Completed by:

Annie Oakley, MS, R. EEG. T, CLTM

LTM EEG Analyst

01/06/2020

Final Interpretive Report will be Completed by:

Marcus Welby, MD, *Epileptologist*