



2509 W. Iles, Ste. 102, Springfield, IL 62704
Phone: (217) 726-7980 Fax: (217) 726-7989

ABRET LTM LABORATORY ACCREDITATION

Epilepsy and ICU/Critical Care EEG Monitoring

General Information

The Laboratory Accreditation Board of ABRET (LAB of ABRET) is a separate board functioning under ABRET, Inc., a not-for-profit, 501 (c)(6) corporation.

The Long-term monitoring (LTM) Board of ABRET accredits (1) Epilepsy Monitoring (EMU) and (2) Intensive Care Unit (ICU)/Critical Care EEG monitoring laboratories. An additional designation will be given for laboratories performing invasive Epilepsy Monitoring

Eligibility

Any laboratory performing long-term EEG monitoring (24 hour) with minimum of 2 dedicated beds or 2 acquisition units may apply for accreditation.

Studies must be interpreted by licensed physicians (M.D. or D.O.). The Medical Director must have one year of formal neurophysiology training or neurophysiology board certification.

At least one of the staff technologists must be an R. EEG.T., with CLTM preferred.

An annual minimum of 50 cases per LTM category (Epilepsy Monitoring and ICU/Critical Care EEG) is required.

Accreditation

LTM-Lab accreditation by ABRET requires a formal review of EEG data, Policies & Procedures. The EEG interpretation (professional component) will not be evaluated. Submitted records will be returned after the process is complete. A site visit may be required.

Accreditation will be for 5 years.

A list of LAB of ABRET accredited laboratories will be published. Successful laboratories will receive a framed certificate and a press kit with two separate designations for Epilepsy Monitoring and Critical Care EEG accreditation.

Unsuccessful laboratories may reapply in one year.

PROCESS FOR LTM LABORATORY ACCREDITATION

Step One

Please send:

1. A complete Part I application form with CV forms (Sections I-V; Appendices 1-2)
2. Initial Processing fee of \$75.00 payable to ABRET.

Step Two

Once the initial application has been accepted, the lab will be asked to submit:

1. The requested policies in electronic form (see application form). Please include a Table of Contents with page numbers. Do not include extraneous information.
2. Recordings:

For Epilepsy Monitoring:

- 3 records (individual patients, complete 12-24 hour audio-video EEG recording including annotations) should be submitted for the Epilepsy Monitoring application. All records must have clinical events, at least 2 should demonstrate clinical and electrographic seizures.
- Laboratories performing extraoperative invasive recordings (including all designated Level 4 NAEC centers) should submit an additional invasive recording showing clinical and electrographic seizures.

For ICU/Critical Care EEG Monitoring:

- 3 records (individual patients, continuous 12-24 hour EEG recording including annotations and audio/video clips of the clinical events) should be submitted for the ICU/Critical Care EEG Monitoring application. Two of the 3 records must have electrographic seizures with or without clinical correlate.

Please send two copies of all records. Provide the official report (interictal abnormalities, ictal abnormalities) for each submitted record.

The Board will randomly request one additional, archived record each for ICU/Critical Care EEG or Epilepsy Monitoring randomly selected by date. Random files do not need to be continuous or contain audio/video unless there are clinical events.

Records should be submitted on CD or DVD with reading software and all montages typically used in the laboratory. Printout records are not acceptable. Patient identifying information should be removed if possible. A Business Associate Agreement has to be completed to satisfy HIPAA requirements (Use either provided form or your own institutional agreement form). Data will only be used for evaluation and will be destroyed or deleted at the completion of the evaluation.

3. For applications received in 2012, a check for \$1500.00 for EMU **and** Critical Care EEG (\$750.00 for only one) is due with submission of the complete application. After 2012, the cost will increase to \$2000.00 for both EMU and Critical Care EEG; \$1000.00 for one.

Applicants may contact the ABRET Executive Office after 90 days, if they have not received notification of accreditation status.

EXPECTED TECHNICAL STANDARDS FOR RECORDINGS

1. All recordings must be interpretable (provide ancillary material, e.g. event log, electrode map and montages).
2. All submitted records must have been recorded within twelve months of the application.
3. Every record must contain a minimum of sixteen electrodes of EEG
4. All inter-electrode impedances (not greater than 5000 ohms) should be equal and documented at least once a day. Pediatric impedances <10,000 ohms.
5. Patient Age, Date, Tech Name or ID.
6. Required documentation on the report: Time of Recording, Time and Description of Symptoms or Events, Behavioral State of Patient, Medication, Summary of Relevant Medical History.
7. If meaningful calibration is not available, ideally the first 30 seconds of the recording should be observed by the technologist using the primary system reference montage
8. Scalp recording standards:
Sensitivity of 5-10 $\mu\text{v}/\text{mm}$ is required, and should be adjusted as needed
Low frequency (high-pass) filter 1 Hz or lower (time constant of not $<.16$ seconds) is required and should be adjusted as needed.
High frequency (low-pass) filter greater than or equal to 70 Hz is required, and should be adjusted as needed.
9. Intracranial recordings:
Low frequency (high-pass) filter 0.5 hz or lower; high frequency (high-pass) filter 70 hz or higher.
Noise level less than 1 μV rms; input impedance at least 1 M ohm.
Common mode rejection of at least 60 dB; dynamic range of at least 40 dB.
10. The notch filter should not be defaulted to "on".
11. Any artifacts should be corrected or monitored, as necessary.
12. For epilepsy monitoring:
If hyperventilation is performed, effort should be noted.
If photic stimulation is performed, stimulus frequency and effect should be documented.
13. Visual, auditory, somatosensory stimulation or noxious stimulation should be used and documented, as appropriate. Clear documentation of patient's maximal level of alertness must take place at some time during recording
14. Before submitting data, verify it is viewable on a generic PC running Windows XP or Windows 2007, and not just on your review station. Provide additional information/instructions as to how to use your particular reading software, and if there are any nuances to facilitate the process, such as passwords.

REFERENCES

1. American Clinical Neurophysiology Society Guidelines
(www.acns.org)
 - a. Minimal Technical Requirements, Guideline 1
 - b. Standards of Practice in Clinical EEG, Guideline 4
 - c. Standards for Long Term Monitoring for Epilepsy, Guideline 12
2. ASET: The Neurodiagnostic Society
(www.aset.org)
 - a. LTME National Competencies
 - b. ICU/cEEG Competencies
 - c. Policy & Procedures for the Neurodiagnostic Department: Reference Manual
3. National Association of Epilepsy Centers, "Guidelines for Essential Services, Personnel, and Facilities in Specialized Epilepsy Centers". January 2010.
(www.naec-epilepsy.org)
4. The Joint Commission, "National Patient Safety Standards"
(www.jointcommission.org)