

## **NeuroAnalyst-CLTM Practice Analysis (2020)**

This exam tests the applicant's knowledge of the following elements at an advanced level which allows skillful application of this knowledge to provide correct interpretation of case presentations and associated EEG patterns.

- (5%) T-1** Validate patient identification and recording period, review the patient history and clinical data and information.

The safe and effective performance of this task requires knowledge of:

- K-1 Two-step identification process
- K-2 Elements of a patient history
- K-3 Medical terminology
- K-4 Effects of drugs on patients and recordings
- K-5 Neurological disorders (e.g. epilepsy, tumors, vascular disease)
- K-6 Psychiatric disorders
- K-7 Toxic/metabolic and infectious disorders
- K-8 Head trauma
- K-9 Neuroanatomy and neurophysiology
- K-10 Medical contraindications to activation procedures
- K-11 Seizure semiology as correlated with electrographic and clinical findings
- K-12 HIPAA HITECH Standards
- K-13 LTM procedures (e.g., ICU/EMU/AEEG)
- K-14 Age-specific criteria
- K-15 Neuroimaging procedures
- K-16 Elements of a neurological examination
- K-17 Comorbidities (e.g., cardiac, anoxic, autoimmune)
- K-18 Barriers to and modifications of electrode placement
- K-19 Effects of indwelling and external devices
- K-45 Electrographic pattern associated syndromes seen in patients 1 year and older

- (5%) T-2** Review the technical description and recording parameters.

The safe and effective performance of this task requires knowledge of:

- K-12 HIPAA HITECH Standards
- K-13 LTM procedures (e.g., ICU/EMU/AEEG)
- K-20 Electrode types
- K-21 10-20, 10-10 electrode placement system and verification
- K-22 The differential amplifier (e.g., polarity, CMRR)
- K-23 Digital analysis (trending, spike, and seizure detection, etc.)
- K-24 Computer knowledge related to LTM devices and networks
- K-25 Audio-video technology
- K-26 Digital instrument concepts (e.g. reformatting, sampling rate, post-acquisition review)
- K-27 ACNS Guidelines
- K-28 Effects of instrument settings (e.g. filters, display gain, epoch)
- K-29 Impedance checks and their contraindications

K-30 Montage modifications

K-33 Activation procedures

**(70%) T-3** Analyze, classify, annotate, and delineate the EEG and video recording data, and evaluate seizure semiology based upon clinical and electrographic findings

The safe and effective performance of this task requires knowledge of:

- K-3 Medical terminology
- K-4 Effects of drugs on patients and recordings
- K-5 Neurological disorders (e.g. epilepsy, tumors, vascular disease)
- K-6 Psychiatric disorders
- K-7 Toxic/metabolic and infectious disorders
- K-8 Head trauma
- K-9 Neuroanatomy and neurophysiology
- K-10 Medical contraindications to activation procedures
- K-11 Seizure semiology as correlated with electrographic and clinical findings
- K-12 HIPAA HITECH Standards
- K-13 LTM procedures (e.g., ICU/EMU/AEEG)
- K-14 Age-specific criteria
- K-17 Comorbidities (e.g., cardiac, anoxic, autoimmune)
- K-19 Effects of indwelling and external devices
- K-22 The differential amplifier (e.g., polarity, CMRR)
- K-23 Digital analysis (trending, spike, and seizure detection, etc.)
- K-24 Computer knowledge related to LTM devices and networks
- K-25 Audio-video technology
- K-26 Digital instrument concepts (e.g. reformatting, sampling rate, post-acquisition review)
- K-27 ACNS Guidelines
- K-28 Effects of instrument settings (e.g. filters, display gain, epoch)
- K-29 Impedance checks and their contraindications
- K-30 Montage modifications
- K-31 Electrographic changes requiring provider notification (Critical Value Notifications)
- K-32 Troubleshooting techniques
- K-33 Activation procedures
- K-34 Artifact monitoring, identification, and elimination
- K-35 Waveform identification
- K-36 Localization techniques
- K-37 Basic cardiac rhythms and rhythms associated with EEG changes
- K-38 Significant patient behaviors and clinical events (e.g., changes in level of consciousness, body movements, episodes)
- K-39 Classification of EEG patterns
- K-41 ILAE Operational Classification of Seizure Types (focal, generalized, motor, non-motor, etc.)
- K-42 ILAE Classification of the Epilepsies (tonic, atonic, syndromes, etc.)
- K-43 ACNS Standardized Critical Care EEG Terminology
- K-44 ACNS Consensus Statement on Continuous EEG in Critically Ill Adults and Children
- K-45 Electrographic pattern associated syndromes seen in patients 1 year and older

**(20%) T-4** Write the NeuroAnalyst report.

The safe and effective performance of this task requires knowledge of:

- K-11 Seizure semiology as correlated with electrographic and clinical findings
- K-27 ACNS Guidelines
- K-31 Electrographic changes requiring provider notification (Critical Value Notifications)
- K-39 Classification of EEG patterns
- K-41 ILAE Operational Classification of Seizure Types (focal, generalized, motor, non-motor, etc.)
- K-42 ILAE Classification of the Epilepsies
- K-43 ACNS Standardized Critical Care EEG Terminology
- K-44 ACNS Consensus Statement on Continuous EEG in Critically Ill Adults and Children
- K-45 Electrographic pattern associated syndromes seen in patients 1 year and older

**\*Prerequisite: All knowledge required for completion of the R. EEG T and CLTM Exams.**