NeuroTrend
Continuous EEG monitoring in critical care

ASSISTED EEG INTERPRETATION
Reviewing continuous EEG recordings is extremely time consuming and requires the expertise of an experienced Neurologist. Using NeuroTrend simplifies the interpretation of EEGs such that only intermediate experience is required for monitoring and for a first EEG inspection. The expert Neurologist can be consulted only if indicated by trends calculated by NeuroTrend.

QUICK REVIEW OF MANY HOURS OF EEG
NeuroTrend graphically visualizes the results of several hours of EEG on a screen. The software works in real time and allows reading off trends in the functional state of the patient’s brain in one glimpse. You can zoom in from minutes to days in order to get the amount of details needed.

AUTOMATIC PATTERN DETECTION
NeuroTrend detects periodic discharges, rhythmic delta, theta and alpha activity, spike waves including their localization, frequency and amplitude. The physician gathers significant patterns and their changes and trends within a few seconds.

DETECTION OF BURST SUPPRESSION
A novel detection of burst suppression is part of NeuroTrend. In addition to the detection of burst suppression events, the relative amplitude attenuation and the suppression time of the bursts is shown.

QUANTITATIVE EEG-ANALYSIS
NeuroTrend also shows essential information about the background EEG. The predominant frequency, general amplitude and symmetry can be easily read off in the quantitative EEG panels as well as in the amplitude-integrated EEG. This allows a quick assessment of the state and trend of the patient.

IMPLEMENTS THE NEW ACNS STANDARD
NeuroTrend is based on the American Clinical Neurophysiology Society’s Standardized Critical Care EEG Terminology. It parses your EEG recordings and automatically classifies epochs according to Main Terms I and II and selected Major Modifiers of this standardized terminology. A summary of the patterns is displayed on the screen written in the nomenclature of the standard.

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FAST AND EFFICIENT EEG REVIEW
Speed up the process of EEG review with the encevis longterm monitoring software. Get a quick overview of the epileptiform events and other pathologic events in your patient’s EEG without having to review every single page.

Concentrate on suspicious EEG activity
encevis will scan through the data and present you a well-arranged list of suspicious EEG activity and epileptiform discharges. You will be able to quickly access the most interesting parts of the EEG. This will highly improve the efficiency of your presurgical workup.

ONLINE SURVEILLANCE
Run encevis as an online surveillance system in parallel with your EEG recording. You will immediately be notified of ongoing seizures. This will significantly increase patient safety – especially during night where resources are even more limited.

FAST ACCESS TO EPILEPTIC SEIZURES
The seizure detection encevis EpiScan provides you with a reliable list of seizure markers that you can easily review. EpiScan has the highest sensitivity on the market with an unmatched false alarm rate of less than seven false alarms per day.

Clinically validated
EpiScan is the first seizure detection that has been evaluated in three independent clinical trials. We tested the system on more than 30,000 hours of EEG from different diagnostic centers around Europe.

FAST ACCESS TO SPIKES
The spike detection encevis EpiSpike marks epileptic spikes and polyspikes and enables you to quickly review the results. It localizes the source of the spikes within the brain and clusters the spikes according to the localization. Spikes are counted, statistics are calculated and the graphical visualization of the results on one screen makes the review very easy.

FAST AND EASY SOURCE LOCALIZATION
The source localization encevis EpiSource enables source localization for everyday use. It enables you to localize in 3D marked spikes and ictal activity in a glimpse of time. Define a region in the EEG, press a button - EpiSource will do the rest.

Localization of ictal activity
Calculate source localization for a complete seizure automatically. Step through the results and watch how the focus of the epileptic activity evolves over time. EpiSource provides you with an accurate localization of the ictal activity in form of graphical color visualization. The easy and fast access makes it usable in everyday practice.

SWITCH OFF EEG ARTIFACTS
EEG artifacts make life hard for clinicians and technicians. The artifact detection encevis PureEEG efficiently removes artifacts from the EEG and thus increases the quality of the data. Switch on and off artifacts easily and make your EEG review much more efficient.

All kinds of artifacts removed
Electrode movements, muscle contractions, line noise, head movements and much more can be easily removed. Artifacts are recognized due to their lack of a reasonable spatial distribution.

All interesting patterns left unchanged
Patterns from cerebral sources, including EEG rhythms, sleep spindles, evoked potentials, epileptic seizures and spikes are left unchanged.

NEUROWERK EEG NeuroTrend
Long-term EEG monitoring for a common routine EEG device for ICU

» EEG trend monitor for clear presentation of epileptic activities in EEG for use in intensive care unit and monitoring station
» Low complexity of representation and simple interpretability of EEG changes
» Classification of periodic discharges as well as rhythmic alpha, delta, theta and spike wave activities, their amplitudes, frequencies and patterns localizations
» Burst suppression detection
» Presentation of aEEG and the background activity
» Heart rate trend display to support epileptic seizure detection
» Easy switching between raw EEG and trend display
» 34/58 channel routine EEG device with latest amplifier technology
  » Video extension (option)
  » AEP, SEP and VEP extension (option)
» Mobile and space-saving system with a clear 23” display, disinfectable trolley, keyboard and mouse
» As software option for all NEUROWERK EEG systems