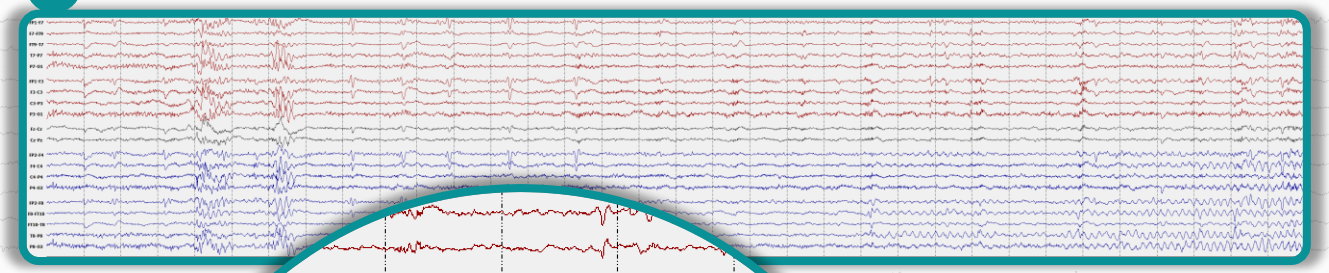
encevis performs automatic EEG

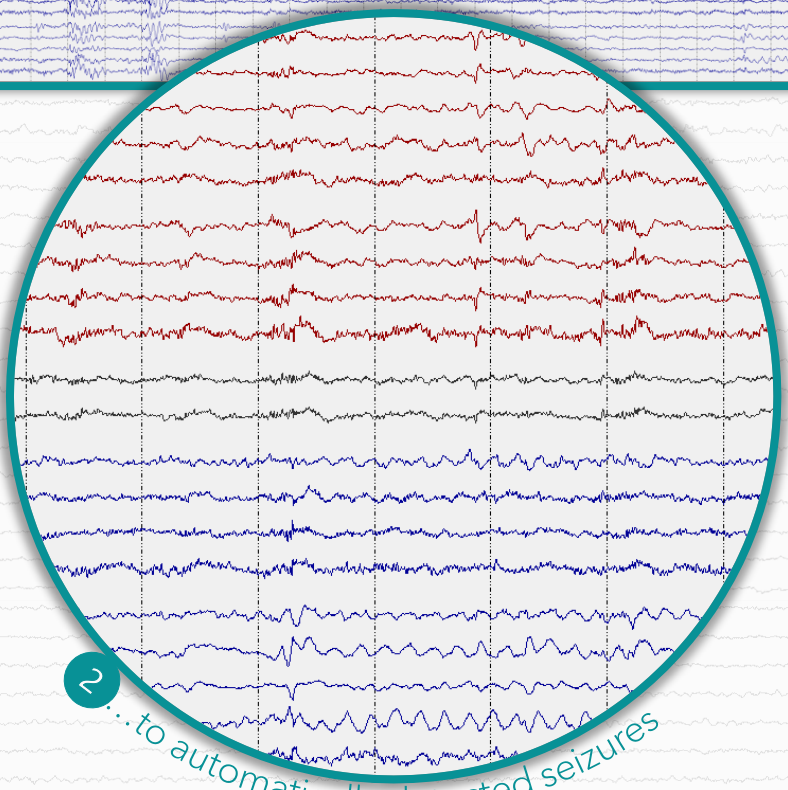
SEIZURE DETECTION

with the encevis **EpiScan** tool

FDA CE 0483

1 From raw EEG data…





2 …to automatically detected seizures

- **AI-driven** – automatic detection with AI-based algorithms
- **Accurate** – sensitivity above 95%
- **Fast** – one hour of data analyzed in under 1½ minutes

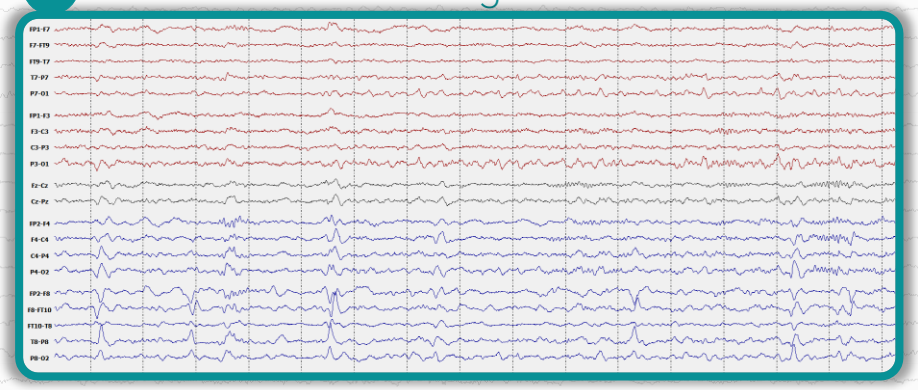
encevis performs automatic EEG

SPIKE DETECTION

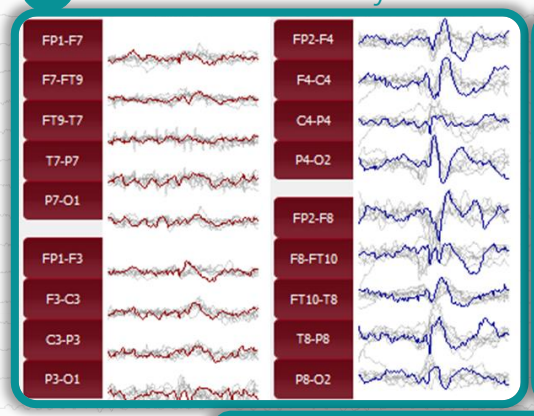
with the encevis **EpiSpike** tool

0483

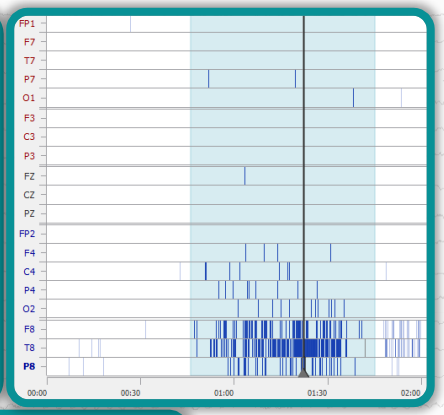
1 From raw EEG recording…



2 …to automatically detected spikes



	Label	Type	Number (%)
✓	F4		4 (1.1 %)
✓	F8		81 (22.5 %)
✓	FP1		1 (0.3 %)
✓	FZ		1 (0.3 %)
✓	O1		0 (0.0 %)
✓	O2		12 (3.3 %)
✓	P4		9 (2.5 %)
✓	P7		2 (0.6 %)
✓	P8		45 (12.5 %)
✓	T8		197 (54.7 %)



Type	Left Hemisphere	Midline	Right Hemisphere	Total
	5 (1.1 %)	1 (0.2 %)	439 (98.7 %)	445 (100.0 %)

- **AI-driven** – automatic detection with AI-based algorithms
- **Accurate** – sensitivity above 85%
- **Comprehensive** – all detections summarized and marked in the raw data

Fürbass, F. et al. (2020). An artificial intelligence-based EEG algorithm for detection of epileptiform EEG discharges: Validation against the diagnostic gold standard. *Clin Neurophysiol, 131*(6), 1174-79.

www.encevis.com

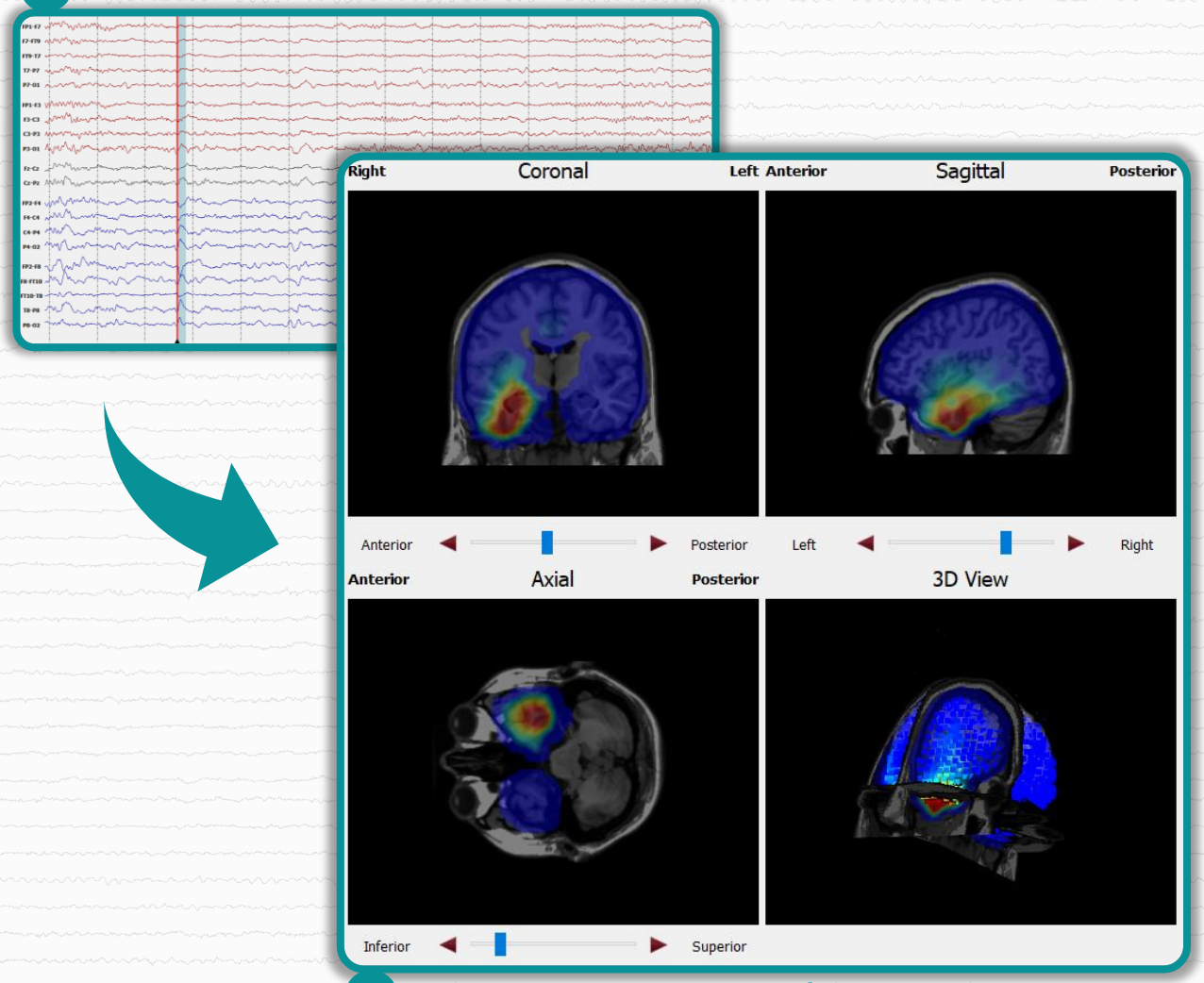
encevis performs automatic EEG

SOURCE RECONSTRUCTION

with the encevis **EpiSource** tool

CE 0483

1 From raw EEG data…



2 …to 3D representation of the signal

- **Automatic** – users only need to mark a time-window in the EEG viewer
- **Versatile** – suitable for reconstruction of seizures, spikes and interictal activity
- **Interactive** – possible to move across brain slides and time

Koren, J. et al. (2018). Automatic ictal onset source localization in presurgical epilepsy evaluation. *Clin Neurophysiol, 129*(6), 1291-99.

www.encevis.com

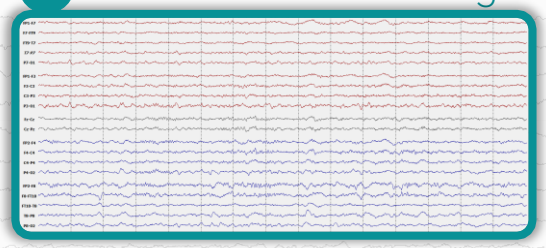
encevis performs automatic EEG

TREND ANALYSIS

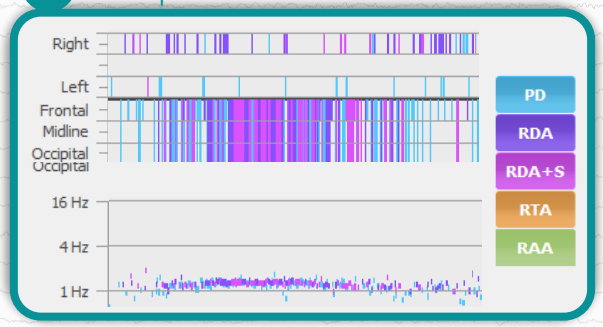
with the encevis **NeuroTrend** tool

0483

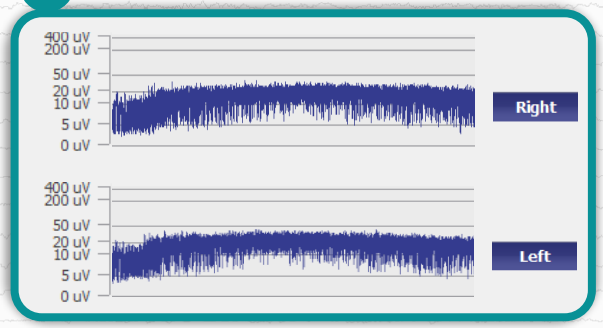
1 From raw EEG recording…



2 …to pattern overview

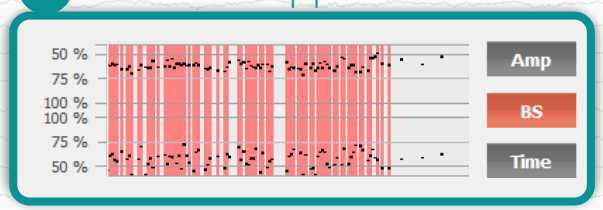


3 …to aEEG



4 …to background frequency

5 …to burst suppression



- **Extensive** – analysis of rhytmic and periodic patterns according to ACNS
- **Clear** – color-coded summary of multi-hour EEG recordings on one screen
- **Automatic** – no user interaction necessary

Koren, J. et al. (2018). Automated long-term EEG review: fast and precise analysis in critical care patients. *Front Neurol*, *9*, 454.

www.encevis.com

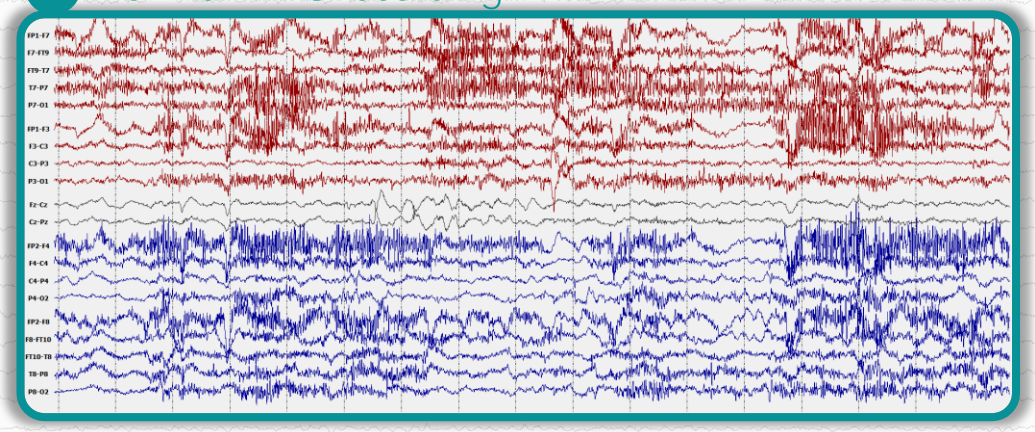
encevis performs automatic EEG

ARTIFACT REDUCTION

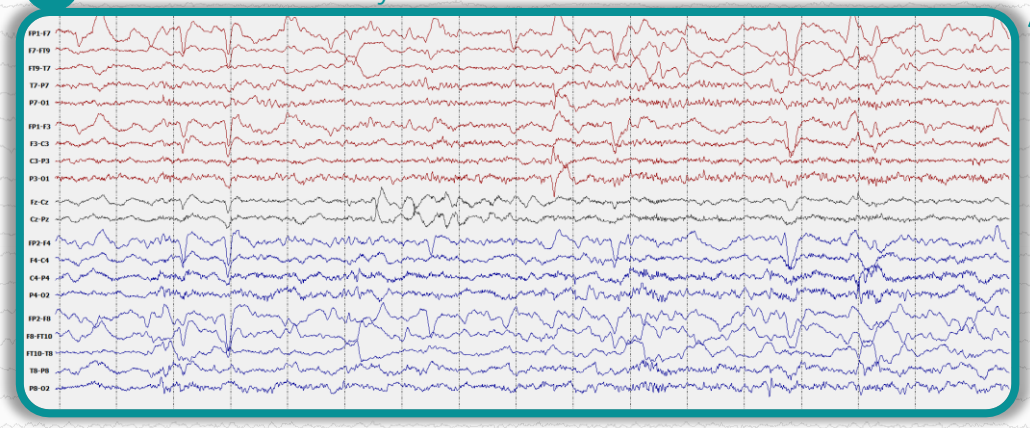
with the encevis **PureEEG** tool

0483

1 From raw EEG recording…



2 …to automatically cleaned data



- **Precise** – eye-movements disentangled from spikes and slow waves (only in the CE- but not FDA-certified software version)
- **Selective** – separation of artifacts from brain signal based on spatial properties
- **Automatic** – no user interaction necessary

Hartmann, M. et al. (2014). PureEEG: automatic EEG artifact removal for epilepsy monitoring. *Clin Neurophysiol, 44*(5), 479-90.

www.encevis.com

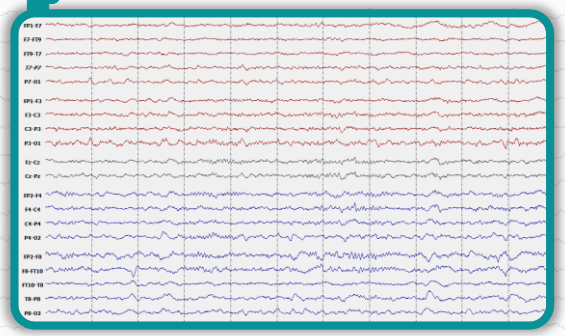
encevis provides

EEG REVIEW

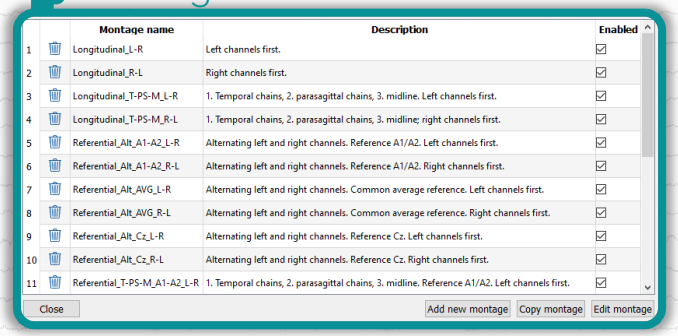
with the encevis **Viewer** tool

FDA CE 0483

Raw EEG data visualisation



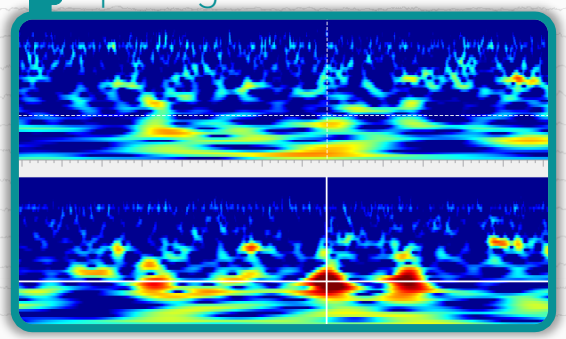
Montage selection & modification



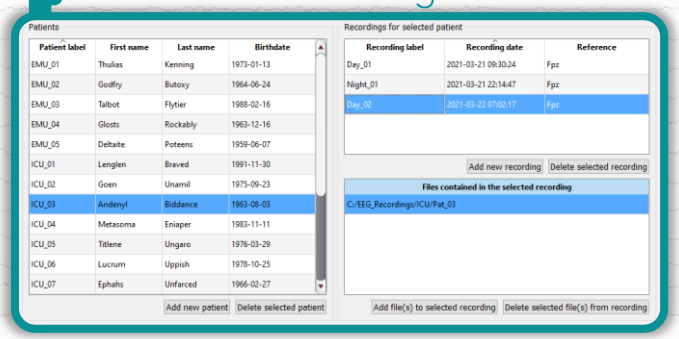
		Montage name	Description	Enabled
1		Longitudinal_L-R	Left channels first.	☑
2		Longitudinal_R-L	Right channels first.	☑
3		Longitudinal_T-PS-M_L-R	1. Temporal chains, 2. parasagittal chains, 3. midline. Left channels first.	☑
4		Longitudinal_T-PS-M_R-L	1. Temporal chains, 2. parasagittal chains, 3. midline; right channels first.	☑
5		Referential_Alt_A1-A2_L-R	Alternating left and right channels. Reference A1/A2. Left channels first.	☑
6		Referential_Alt_A1-A2_R-L	Alternating left and right channels. Reference A1/A2. Right channels first.	☑
7		Referential_Alt_AVG_L-R	Alternating left and right channels. Common average reference. Left channels first.	☑
8		Referential_Alt_AVG_R-L	Alternating left and right channels. Common average reference. Right channels first.	☑
9		Referential_Alt_Cz_L-R	Alternating left and right channels. Reference Cz. Left channels first.	☑
10		Referential_Alt_Cz_R-L	Alternating left and right channels. Reference Cz. Right channels first.	☑
11		Referential_T-PS-M_A1-A2_L-R	1. Temporal chains, 2. parasagittal chains, 3. midline. Reference A1/A2. Left channels first.	☑

Close | Add new montage | Copy montage | Edit montage

Spectogram visualisation



Patient & data management



Patients

Patient label	First name	Last name	Birthdate
EMU_01	Thulias	Kenning	1973-01-13
EMU_02	Godfry	Butoxy	1964-06-24
EMU_03	Talbot	Flytier	1988-02-16
EMU_04	Glosts	Rockably	1963-12-16
EMU_05	Deltaite	Poteens	1959-06-07
ICU_01	Lenglen	Braved	1991-11-30
ICU_02	Goen	Unamil	1975-09-23
ICU_03	Anderyl	Biddance	1963-08-03
ICU_04	Metasoma	Eniaper	1983-11-11
ICU_05	Titlene	Ungaro	1976-03-29
ICU_06	Lucrum	Uppish	1978-10-25
ICU_07	Ephahs	Unfarced	1966-02-27

Add new patient | Delete selected patient

Recordings for selected patient

Recording label	Recording date	Reference
Day_01	2021-03-21 09:30:24	Fpz
Night_01	2021-03-21 22:14:47	Fpz
Day_02	2021-03-22 07:02:17	Fpz

Add new recording | Delete selected recording

Files contained in the selected recording

C:/EEG_Recordings/ICU/Pat_03

Add file(s) to selected recording | Delete selected file(s) from recording

- **User friendly** – designed to accommodate standard clinical routine
- **Flexible** – display parameters can be easily adjusted
- **Clear** – neat and tidy view, no unnecessary clutter