

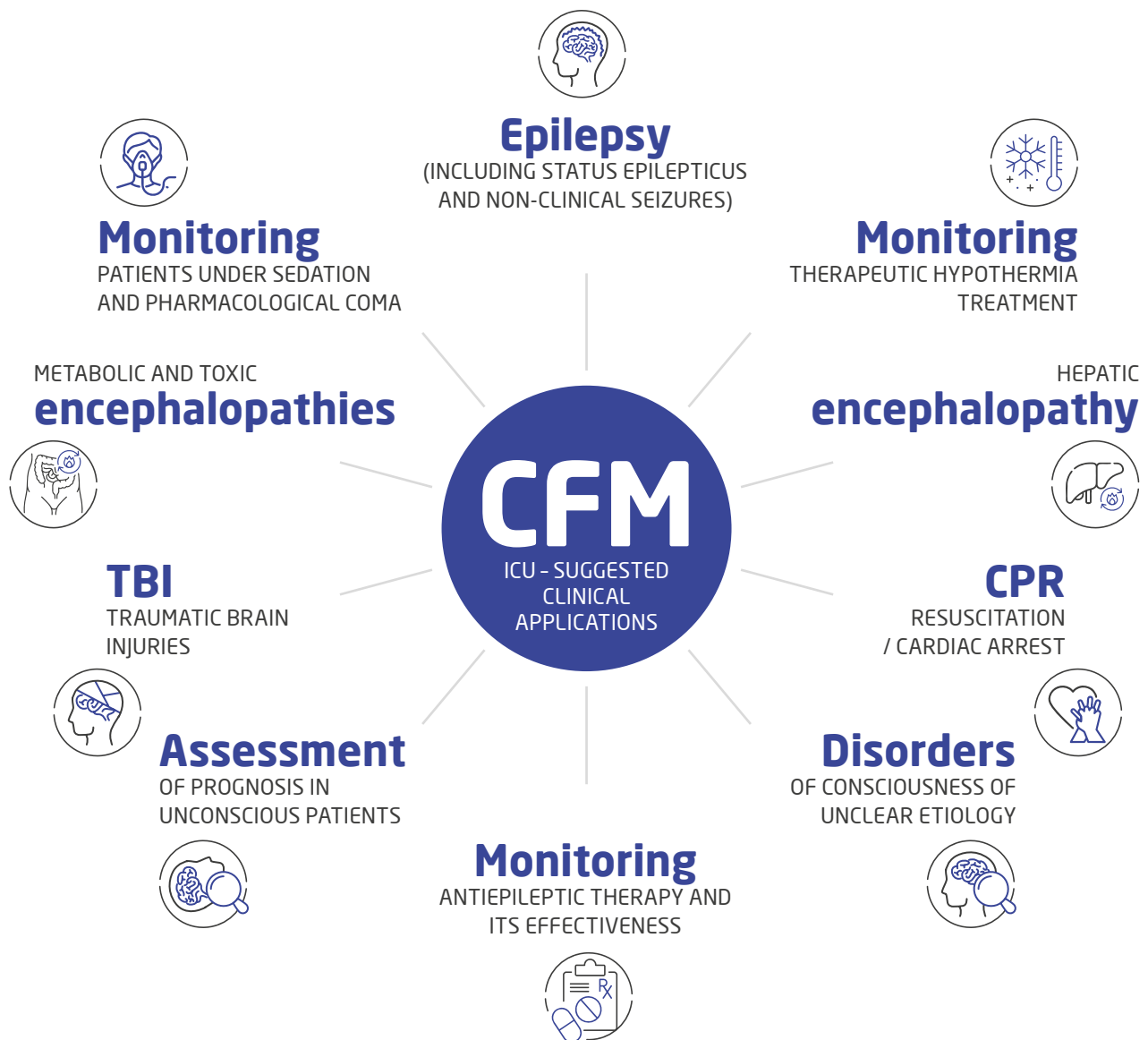
CFM

LONG-TERM BRAIN
FUNCTION MONITORING



ELMIKO
aEEG/CFM
SYSTEM
NIRS/SpO₂

elMiko
Create to Help



Create to Help

THE ELMIKO aEEG/CFM SYSTEM PROVIDES SOLUTIONS FOR:



DIAGNOSTICS



THERAPY



SCIENCE



WHAT IS CFM?

CFM stands for Cerebral Function Monitoring - a technique that enables long-term assessment of brain bioelectrical activity in adult patients in critical condition in intensive care units.

In adult intensive care, CFM is used for:

- **Assessing brain function** in comatose patients or after cardiac arrest (e.g., OHCA)
- **Early detection** of seizures (both visible and subclinical)
- **Monitoring** brain activity during sedation
- **Evaluating treatment effectiveness** (e.g., hypothermia, neuroprotection)
- **Supporting therapeutic decision-making** in critical conditions



CHARACTERISTICS OF CFM DEVICES

CFM devices:

- Display brain activity as **clear trend graphs**, facilitating interpretation
- Allow integration with monitoring of basic parameters:
 - Oxygen saturation (**SpO₂**)
 - Heart rate (**HR**)
 - **EEG brain activity**
- Enable customized **alarm functions** tailored to patient-specific needs
- Support continuous monitoring with options for data recording and **archiving** for later analysis
- Feature **intuitive user interfaces** for easy clinical operation



APPLICATION OF THE ELMIKO CFM SYSTEM

The ELMIKO CFM system is intended for intensive care units (ICU), who need continuous and objective monitoring of brain function in critically ill patients.

ELMIKO CFM System main areas of application:

- Intensive care units (**ICU**)
- **Stroke units**
- **Neurosurgery** clinics
- Emergency hospital departments (**ED**)
- **Postoperative neuro-monitoring** of neurosurgical patients

Key features of the ELMIKO CFM system:

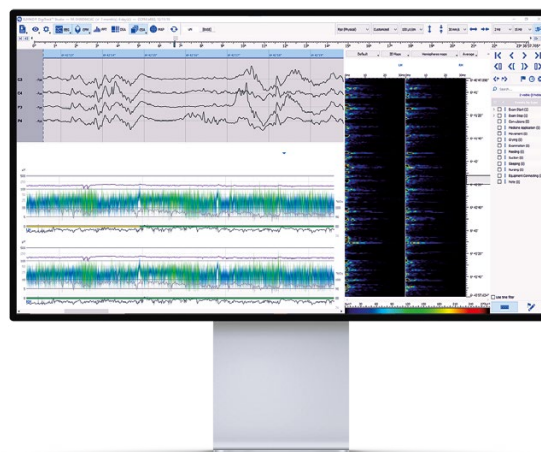
- Continuous **neurological condition monitoring** for patients in comas, after surgery, or with brain injuries
- **Optimizing treatment** for critically ill patients
- **Quick neurological assessment**
- **Supporting** therapeutic decision-making
- **Reducing** the need for more invasive or expensive methods





ADVANTAGES OF THE ELMIKO CFM SYSTEM

- Intuitive and comprehensive multimodal **long-term trend monitoring**, covering EEG, HR, SpO₂ in a single display
- **rSO₂ signal recording** capability on up to 4 channels
- Option to expand with **video module** (1 or 2 cameras)
- Unique feature for **automatic color marking** of EEG traces depending on brain activity level (signal amplitude)
- **Personalized alerts** for saturation, heart rate, brain bioelectrical activity, or electrode impedance
- Unique **aEEG trend visualization** with shadowing, dynamically presenting average, minimum, and maximum EEG values to facilitate real-time signal trend analysis
- Advanced measuring strip dedicated to **trend and signal analysis**

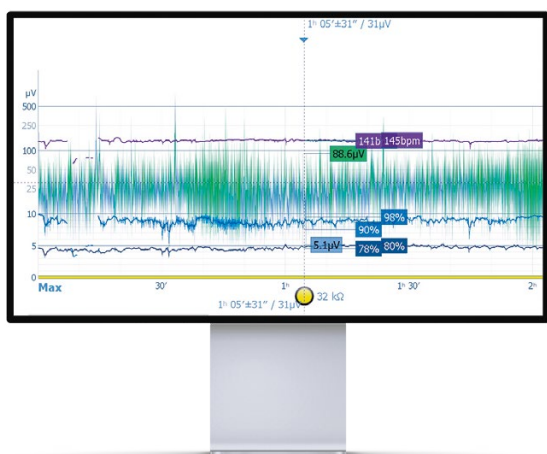


- Possibility of **custom EEG display configuration**, including time scale and visualization parameters tailored to user needs
- Advanced EEG signal analysis methods, including **FFT, mapping, TPM, DSA, CSA, BSI**, and other techniques for assessing brain bioelectrical activity



FUNCTIONALITIES OF THE ELMIKO SYSTEM

- Modern EEG head **enabling operation on 3 or 5 channels** (including 2 or 4 dedicated to EEG signal recording), with upgrade options to full 32-channel clinical systems, depending on needs
- Continuous impedance measurement ensures **high signal quality** and accuracy
- **Lightweight, durable, and damage-resistant** design for safe clinical use
- **Stable and reliable** USB communication
- Possibility to work with **a mobile therapy station** - system can be installed on a mobile medical cart or integrated into stationary units
- **aEEG trend visualization with color coding** - allows for easy interpretation of brain activity
- Integration of EEG signals with SpO₂ and rSO₂ - supports early **identification of hypoxia and ischemia**
- **Intuitive user interface** enables quick data interpretation and real-time reaction
- System complies with data protection regulations (**GDPR**)



The **ELMIKO CFM system** stands out with its ability to provide long-term, color-coded monitoring of EEG trends along with additional vital signs—all in one system.

An ideal solution for ICUs where quick reaction and accurate patient assessment are crucial.



INNOVATIONS THAT MAKE A DIFFERENCE

- **CCFM - CFM color trend**
A unique color-coding function for the aEEG/CFM trend graph that automatically assigns colors to brain activity patterns (normal, depression, high, burst suppression), significantly simplifying interpretation and enabling rapid assessment of the patient's neurological condition.
- **SpO₂ and rSO₂ correlation with CFM trend**
Simultaneous display of oxygen saturation (SpO₂) and regional saturation (rSO₂) parameters alongside the CFM trend graph allows users to assess whether a drop in brain activity is due to hypoxia or other circulatory-respiratory disorders—or, conversely, whether there is brain inactivity without signs of oxygen deficiency.
- **vCFM - Video CFM**
An optional video module allows real-time patient image recording synchronized with CFM data. This increases clinical insight and enables the documentation of critical events.

ADDITIONAL OFFER

- Professional **training** in aEEG/CFM data interpretation
- Assistance with **offer and tender presentation** preparation
- **Technical support** (on-site and remote)
- Wide range of **accessories**: caps, gels, electrodes

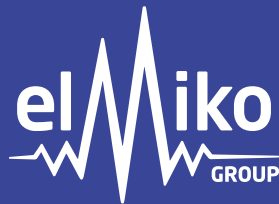


CFM SPECIALIST

A CFM specialist is a person with a medical or technical background, trained in:

- **Interpreting** aEEG/CFM data (e.g. seizure detection, depth of sedation assessment)
- **Operating** the monitoring system and integrating other parameters (SpO₂, rSO₂)
- **Applying the CFM system** to monitor patients in comas or with brain injuries
- **To become a CFM specialist in an ICU setting, one must:**
- Have **medical qualifications** (doctor, nurse, medical technician)
- Undergo **training** in CFM operation and data interpretation (e.g. via AKSON Education Center)
- Have **practical experience** with intensive care patients





Create to Help

The **ELMIKO GROUP** is a Polish brand with extensive, international experience, providing interdisciplinary support to clinicians and therapists in neurology and related fields. Together, we provide high-quality equipment and modern diagnostic methods, while simultaneously training specialists and focusing on patient well-being.



Our brands



ELMIKO is a manufacturer and distributor of cutting-edge medical apparatus and innovative solutions for neurology and neurotherapy, including systems for EEG, CFM, EEG Biofeedback, tES, TMS, and EMG.

The **AKSON Education Centre** organizes and conducts training in neurodiagnostics and neurotherapy for physicians, medical technicians, psychologists, educationalists, and therapists, including EEG, EMG, QEEG, EEG Biofeedback, tES, TMS, and others.

NEURODIAGNOSTYKA, a centre for neurological diagnostics and neurotherapy, provides services to individual patients. It offers services on-site, in neurological clinics and at the patient's home, as well as providing diagnostic services and equipment leasing in hospitals and clinics.

ELMIKO VET, a manufacturer of veterinary neurological equipment. It offers advanced solutions that support veterinary clinicians in the field of animal neurology and neurotherapy, including EEG diagnostics, and pain management and treatment.

ELMIKO BIOSIGNALS sp. z o. o.



Find us:

Jeżewskiego 5c/7
02-796 Warsaw
Poland



Call us:

+48 22 644 37 37
+48 600 37 37 90



Email us:

elmiko@elmiko.pl



Follow us:



@elmikobiosignals

