

# Strokewatch: Noninvasive Stroke Detection Using Electroencephalography (EEG)

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## OTHER INFORMATION

### CATEGORIZED AS

- ▶ **Medical**
- ▶ Devices
- ▶ Diagnostics
- ▶ Disease: Central Nervous System
- ▶ Software

### RELATED CASES

2022-166-0

## **TECHNOLOGY DESCRIPTION**

The invention enables real-time bedside quantitative electroencephalography-based noninvasive stroke detection.

Current quantitative approaches to detect stroke require interpretation by trained experts: a limited resource in most hospital settings. Through application of a novel and highly sensitive EEG algorithm, electrical field attenuations can be used to visualize areas of cerebral ischemia in real-time to facilitate non-expert interpretation.

## **ADVANTAGES**

- ▶ Enables real-time quantitative stroke detection by non-experts
- ▶ Facilitates early detection of stroke to support:
  - ▶ Timely and efficient triage, resource allocation, and procedural intervention
  - ▶ Reduction in neurological disability and patient mortality
  - ▶ Decreased length of hospital stay and care escalation
- ▶ Compatible with existing EEG monitoring platforms and hardware, minimal data input requirement

## **APPLICATION**

- ▶ Real-time stroke detection and monitoring
- ▶ Home-based stroke monitoring
- ▶ Pre-hospital deployment for stroke triage (e.g., in ambulance)
- ▶ Emergency Department triage and monitoring
- ▶ Intraoperative monitoring
- ▶ Critical care monitoring
- ▶ Real-time seizure detection and monitoring
- ▶ Real-time visualization of focal seizures
- ▶ Traumatic head injury
- ▶ Pre-hospital deployment for neurosurgical triage (e.g., in ambulance)
- ▶ In-hospital monitoring for injury expansion (e.g., hematoma or hemorrhage)

## **LOOKING FOR PARTNERS**

To further develop and commercialize the technology.

## **STAGE OF DEVELOPMENT**

Proof of concept. Pilot/early validation study conducted in pediatric population.

## **DATA AVAILABILITY**

Under CDA.

## **PATENT STATUS**

Patent Pending

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