Sense
Neuro Diagnostics

MTEC

COMPANY OVERVIEW

Non-traditional, diagnostic company developing technology to triage and assess neurological conditions in real-time, non-invasively.

ONE TECHNOLOGY, THREE PRODUCTS

Nine antennae transmit a low-power radiofrequency (RF) pulse through the head.

- Healthy brain, hemorrhage, and ischemic tissue have unique electrical properties that react to the signal in a signature way.

One scan collects 360 datapoints across entire cranial vault in seconds.

Algorithm interprets the signals to detect:

- Hemorrhagic TBI and stroke, by subtype, in a pre-hospital environment
- Suspected hemorrhage expansion in existing brain injury

DETECTING HEMORRHAGE

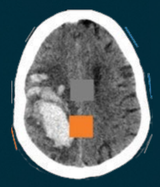
1. Neural Network analyzes 360 datapoints

- Output "Bleed Yes" vs "Bleed No"

2. Detection Algorithm finds antennae behaving more abnormally than others (orange on image to right)

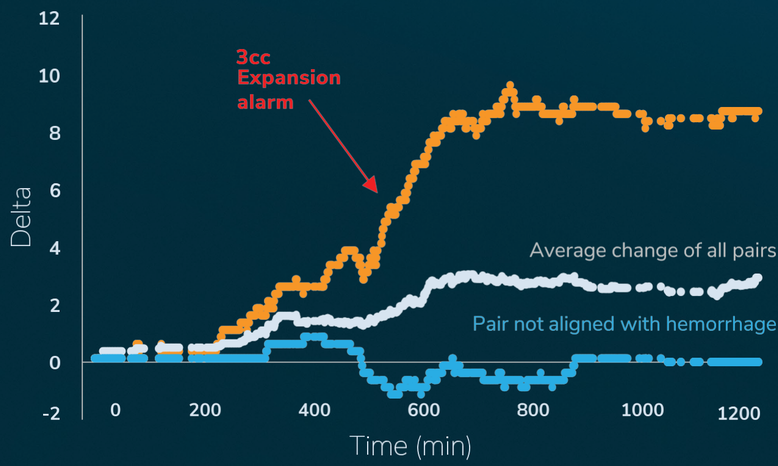
- Outputs which antennae are above threshold

Neural Network Results:
94% Sensitivity, 67% Specificity



Hemorrhage volume 41 cc at baseline (t=0). Expanded to 45 cc by 1250 minutes. NeuSTAT monitoring would have alarmed at 500 minutes.

MONITORING FOR EXPANSION



NeuSTAT™

Hospital Monitor for Intracranial Hemorrhage (ICH)

Monitors for suspected hemorrhage expansion

Enrolling in clinical study for FDA approval
User Interface on control unit connected to IV pole
Rigid, disposable Headset
Reusable Control Unit

- Improved patient outcomes
- Lower cost of care
- Reduced ICU Stay: *4K-8K / patient day

NeuroHawk™ EMS

Emergency Room and EMS for Hemorrhage Detection and Stroke Subtype Differentiation

Detects presence of intracranial bleeding or ischemic stroke with large vessel occlusion

User Interface on a Mobile Application
Flexible, disposable Headset / Reusable Control Unit

- ED screening identifies critical patients
- Helps triage patients to correct hospital
- Improved patient outcomes
- Mitigates risk exposure to hospital/EMS

NeuroHawk™

Military Device for Detection and Monitoring of hemorrhagic TBI in Role 1 Environment

Detects and monitors for intracranial bleeding following TBI

Developing prototype with DoD contract through MTEC
User interface is 3 LED lights (Red, Green, Yellow)
Light-weight, flexible, and disposable Headset
Reusable Control Unit / Data stored in Headset for monitoring through continuum of care

- Identifies warfighters in need of intervention