HeRO®

AN EARLY WARNING PREDICTIVE TOOL FOR NEONATAL SEPSIS[1,2]

Kiara MedTech is committed to impacting lives by embracing effective healthcare technologies appropriate for the African continental setting.

Medical Predictive Science Corporation (MPSC) has developed a device to aid in clinical risk assessment and therapeutic decision-making.

HeRO® (Heart Rate Observation)

A device that analyses heart rate characteristics (HRC) and uses predictive algorithms to help detect infection-related deterioration 4 to 48 hrs before it is clinically apparent.[1]

HeRO® device provides continuous, non-invasive patient monitoring for detection of pre-clinical sepsis (and other infection-related conditions) in neonates, allowing earlier intervention and significantly improving outcomes.[1]

MPSC
The Power To Predict

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What is HeRO®?[2]

HeRO® is a system that supplements your existing multi-parameter monitors. It does not replace clinical expertise.

HeRO® is non-invasive and works from the data already being collected by the existing physiological monitor, with no additional leads or patient contact required.

- **HeRO®** was invented through the collaboration of a Neonatologist and a Cardiologist.
- **HeRO® detects neonatal distress** caused by conditions such as **sepsis**, **urinary tract infection** and **necrotising enterocolitis (NEC), before overt clinical signs appear**.
- **HeRO® anticipates declines due to infection-related conditions** in neonates, specifically by detecting changes in **heart rate characteristics (HRC)**.
- **HeRO®** produces a **numeric score** indicating the **likelihood of an infection within the next 24 hours**.
- A rising **HeRO® Score** *often precedes clinical signs and symptoms* by hours to days. In many cases, a rise or multiple rises of a **HeRO® Score** will occur from **4 to 48 hours prior** to the presentation of clinical symptoms.
- Life-threatening clinical events may be prevented due to early action prompted by the rising **HeRO® Score**.

In the vulnerable neonate, timing of the detection of clinical variances, can be a matter of life or death. The real benefit of **HeRO®** *is early detection and intervention, impacting both morbidity and mortality.*

Features of HeRO®: [2]

HeRO® is compatible with virtually all ICU physiological monitors.

The system provides an **hourly HeRO® score** taking in the last 12 hours of HRC data and a continuing **5-day trend** of the **HeRO® score**. [1]

Incorporation of HeRO® in decision making was shown to decrease mortality in pre-term infants by >20 % in a 3,000-patient clinical trial - the largest NICU study to date. [1]

Additionally:

HeRO® is compatible with existing hospital IT Infrastructure.

HeRO® data can be exported to electronic medical records.

HeRO® provides remote accessibility.

HeRO® includes a web server to allow for any networked computer to view the **HeRO® scores** with a compatible web browser.

Network Security

Patient data stays within the hospital. **HeRO®** supports a multitude of anti-virus solutions.

Remote Support

With a hospital provided secure VPN connection, remote support can be provided to address your concerns.

Reference:
1. Hicks J.F., Fairchild K. HeRO monitoring in the NICU: sepsis detection and beyond. Infant 2013; 9(6): 187-91.
2. Heart Rate Characteristics (HeRO). MPSC-SAM-1905 (R14.1). www.heroscore.com/references.htm

For more information on the complete ***HeRO®*** *system, please contact:* **kiara-hero@kiarahealth.com**

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