MPSC
The Power To Predict

SALES AND SERVICE
O.E. MEYER CO.
MEDICAL PRODUCT DIVISION

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HeRO®

MPSC is committed to saving lives and reducing healthcare expenditures through the development of effective clinical diagnostic and decision support tools.
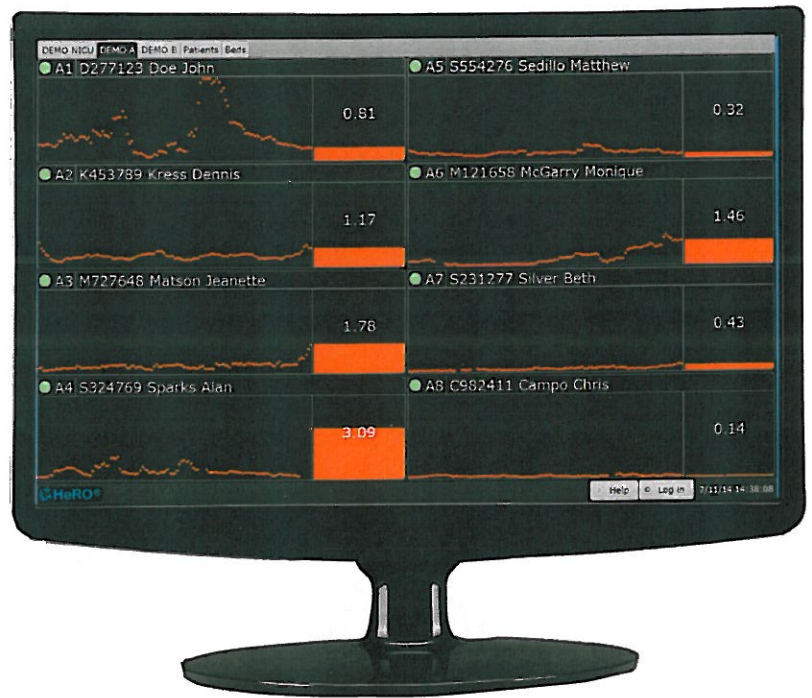
About MPSC

Medical Predictive Science Corporation (MPSC) is engaged in the development of computational diagnostic and bioinformatic technologies for the healthcare industry. MPSC is committed to saving lives and reducing healthcare expenditures through the development of effective clinical diagnostic and decision support tools. These products use computational diagnostic methods to make the early diagnosis of clinical illness and to aid in confirming wellness. Our HeRO products provide continuous, non-invasive patient monitoring to produce diagnostic information and decision support to the clinicians.

HeRO represents the leading edge of what MPSC sees as a family of innovative diagnostic tools. Our research programs continue to focus on the advancement of monitoring technologies that are proven effective through evidence based medicine.

HeRO Monitoring

HeRO is a monitor or monitoring system that supplements your existing multi-parameter monitors. 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 by doctors - through the collaboration of a Neonatologist and a Cardiologist.

- HeRO responds to neonatal distress caused by conditions such as sepsis, urinary tract infection and NEC.

- All of these conditions will eventually be discovered. It is more a question of when. How soon can we catch it? HeRO is a tool to help anticipate these rapid declines in neonates. Specifically, by detecting decreases in variability of the heart rate.

- Using technology to analyze heart rate data that is already being collected by the physiological monitor, HeRO produces numeric and graphical trending information indicating the likelihood that the infant will be sick in the next 24 hours.

- A rising HeRO Score often precedes clinical signs and symptoms by hours to days. In many cases, the rise or multiple rises of the HeRO Score will occur from 4 to 48 hours prior to the presentation of clinical symptoms.

HeRO Symphony central monitor

- Significant clinical events are likely to be detected earlier as a result of the increased attention the rising HeRO Score prompts.

HeRO products

All of the HeRO products utilize the same proprietary algorithms to compute the clinically proven HeRO Score. Our products include the **HeRO Symphony** system, our premier product, which supports central monitoring, research data collection, remote access, and HL7 data export to your EMR. Our standalone, bedside solutions include a limited feature set in **HeRO ES**, **HeRO solo** or **HeRO duet**.
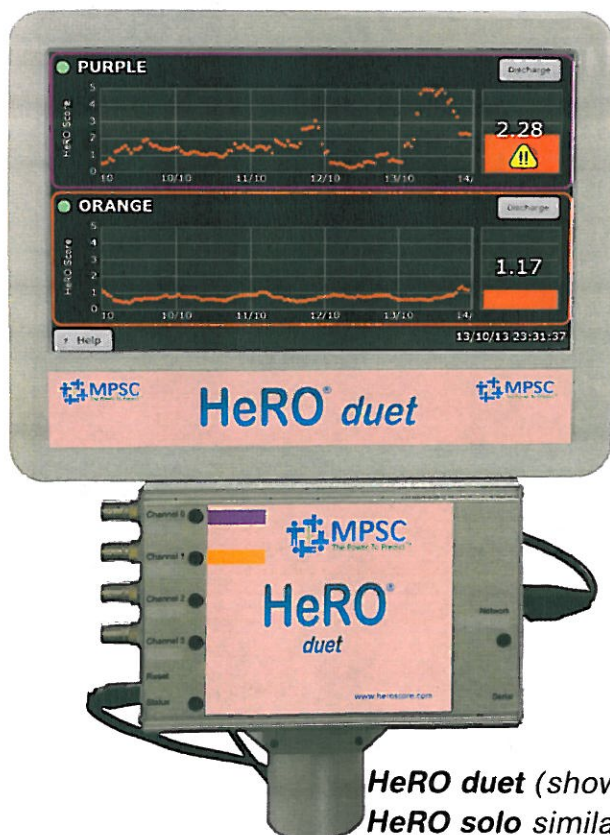
Features of HeRO:

- Compatible with virtually all ICU physiological monitors
- Provides an hourly HeRO Score with trending for five days
- Proprietary algorithm proven to decrease mortality by >20% in a 3,000 patient clinical trial - the largest NICU study to date[1]

HeRO Symphony

With **HeRO Symphony**, MPSC continues to improve upon the capabilities of our foremost HeRO System with new advancements and capabilities. **Symphony** includes HL7 data export for sending HeRO Scores directly to your electronic medical record, new data acquisition methods for easier setup, and improved monitor connection cables. **Symphony** represents the highest level of capability that HeRO offers.

"This sets the tone for neonatal intensive care across the country or around the world for the next decade," John Kattwinkel, MD.

HeRO solo and duet

- **Designed for the unit that wants the flexibility of a mobile solution in a bedside monitor.**
- **HeRO solo** and **duet** provide HeRO monitoring for one or two patients, respectively.
- **HeRO solo** and **duet** can be installed by the hospital engineers.

HeRO duet (shown)
HeRO solo similar for 1 patient

[1] *Mortality Reduction...* Moorman et. al.

HeRO ES

- **HeRO ES** integrates into iPC equipped Philips monitors.
- The only current way to embed HeRO directly onto the patient monitor.
- Can be upgraded to **Symphony** in order to utilize both HeRO central monitoring and HeRO in the physiological monitor.
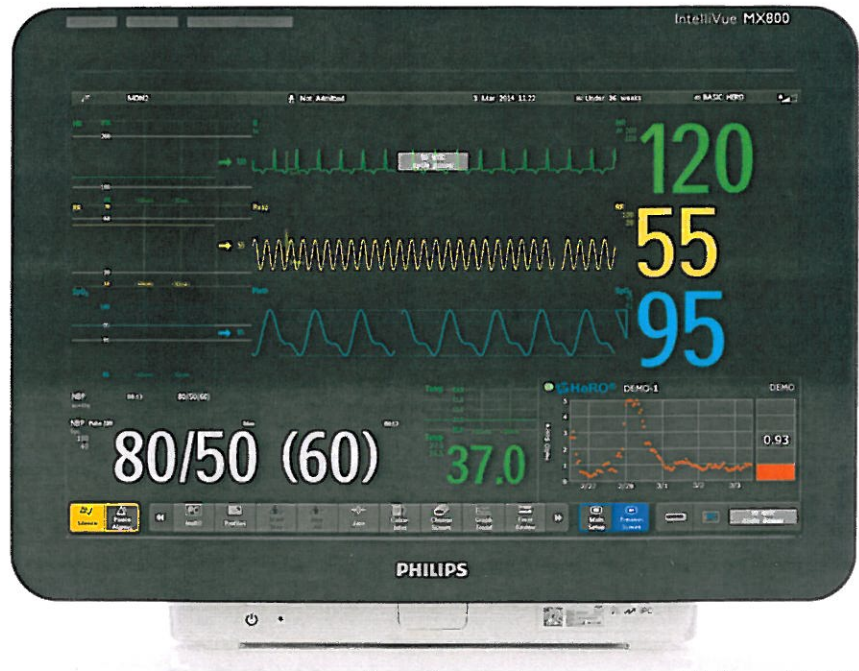
HeRO ES shown on a Philips MX800

HeRO products compared

Feature	HeRO Symphony	HeRO *solo/duet*	HeRO ES
Proprietary HeRO algorithm	☑	☑	☑
Proven HeRO Scores	☑	☑	☑
Five-day HeRO Score trend	☑	☑	☑
Hourly update of HeRO Score	☑	☑	☑
Patients/Beds Covered	All beds in unit	1 (*solo*), 2 (*duet*)	1
Storage of HeRO data	One year	Current patient only	Current patient only
Central HeRO monitors	☑	☒	☒
Networked to the hospital	☑	☒	☒
Supports patient transfer	☑	☒	☒
Export data to medical record	☑	☒	☒
Patient reports	☑	☒	☒
Remote access to data	☑	☒	☒
Remote technical support	☑	☒	☒
Software updates	☑	☒	By hospital engineers
Installation project scope		Self-install	
Standalone	☒	☑	☑
Bedside monitor	☒	☑	☑ Integrated into Philips MX monitor

Heart Rate Characteristics (HeRO) Bibliography:
The following articles describe HeRO monitoring and clinical indications.
For a more complete listing, please refer to www.heroscore.com/references.htm

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HeRO is designed for clinicians and the hospital

Compatibility with the Hospital IT Infrastructure

HeRO Symphony requires a HeRO server to serve as the hub of the HeRO System. In order to meet the needs of the hospital, this server can either be a physical machine provided by MPSC or a virtual server provided under VMWare. Either solution will be hosted by the hospital.

Export to Electronic Medical Records

HeRO Symphony includes an HL7 interface to export data to your electronic medical record.

Remote Accessibility

HeRO Symphony 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, MPSC can provide remote support to address your concerns.

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MPSC has local authorized representatives in many countries. For the contact information of your local representative, contact us at info@heroscore.com.

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