M2M Connectivity Plays Important Role for Patients Awaiting Heart Transplant Worldwide

Challenge

When Rodger Ford, CEO and co-founder of Houston-based ReliantHeart, Inc., was seeking a machine-to-machine (M2M) partner that could provide lifesaving connectivity for patients worldwide awaiting a heart transplant, he looked no further than the dynamic leadership and development team at Numerex®, a leading provider of on-demand and interactive machine-to-machine (M2M) and Internet of Things (IoT) enterprise solutions.

The ability to remotely monitor and send real-time data via a secure network anywhere in the world 24/7 and signal urgent alerts when needed was a primary driver that helped Ford recognize Numerex was the right M2M connectivity partner to power ReliantHeart's revolutionary new HeartAssist5® Heart Pump.

"Three very specific criteria were important to me when searching for an M2M partner on this project," explained Ford. "First, I needed a partner big enough not to fail. Next they needed to be connected real-time, all the time, anywhere in the world. Finally, I wanted a turnkey solution partner with all the necessary infrastructure all under one roof – from front-end design, to execution and moving of the data – who demonstrated superior customer service. Numerex matched these criteria for me and much more."

"Being connected real-time, all the time, anywhere in the world, via the Numerex Network, is critical to clinicians that support HA5 patients."

—Rodger Ford, CEO and Co-founder, ReliantHeart, Inc.

Solution

For ReliantHeart®, Numerex's worldwide M2M connectivity and 24/7 remote monitoring capabilities play an integral role in the company's daily operations.

"Oftentimes patients with critical heart conditions and VADs that are not monitored arrive at the hospital on death's door," Ford explained. "The worldwide connectivity provided to the HA5 device, via the Numerex network, allows medical teams to intervene much earlier, resulting in valuable time needed to streamline patient care and potentially improve outcomes."

Critical data about the functioning of a patient's HA5, such as blood flow, speed and power, are monitored and broadcast via a secure wireless Internet connection to a control center remotely monitored via computers, iPad or smartphones. If a HA5 patient's transmitted data violates pre-determined levels set by physicians, an alert is immediately sent to a clinical team charged with monitoring that patient.

"Being connected real-time, all the time, anywhere in the world is critical to clinicians that support HA5 patients. Of equal importance to ReliantHeart was teaming up with a supplier who demonstrated strong responsiveness at the executive level and listened to what my team was trying to accomplish," Ford said. "It's rare to find such spirit in a supplier and I could not be more pleased with the team and results I've experienced at Numerex."

Results

The HA5, powered by the Numerex Network, securely connects patients awaiting critical heart transplants to their treating physicians and clinicians. "The connectivity provided to the HA5 device, via the Numerex Network, allows the device to stay connected all the time, virtually anywhere in the world" says Ford. As more heart centers shift toward remote monitoring and adopt this unique, innovative technology, the stability of the Numerex Network becomes increasingly valuable.
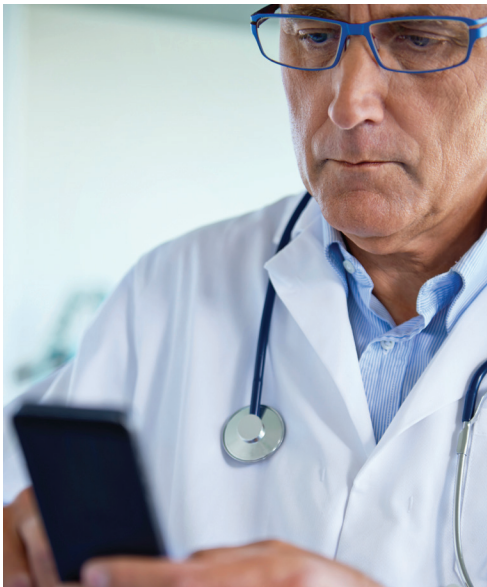
* HeartAssist5 is a medical device pending 510(k) and is not available for sale within the United States.

HeartAssistRemote™
▼
Numerex Network Solutions
▼
FlowAccurate™ Diagnostics
▼
Remote Monitoring

Numerex®
Smart Data Delivered™

Remote Blood Flow Monitoring, Allows Real Time Connectivity for Patient and Physicians

Features

- Patient privacy password protected via secure network
- Remote access on iPhone, Android & Blackberry platforms
- Real time blood flow and related data via secure wireless network
- Secure, reliable connectivity, virtually anywhere in the world
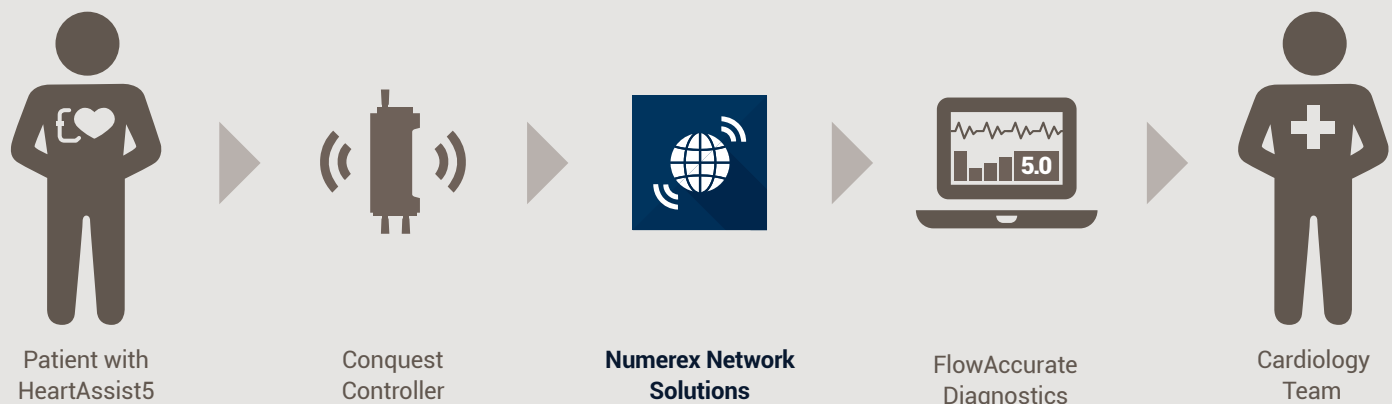
Benefits

- Real-time data offers clinical efficiency improvements
- Optimizes the HA5 by electronically reporting patient data
- Offers patients flexibility and ability to travel while remotely monitored
- Secure, wireless alternative to traditional monitoring methods

How Does Numerex Enable the HA5?

Through the Numerex Network, data is continuously transmitted in bursts from the HA5 to a controlled and secure data center 24 hours a day via the HeartAssist5 Conquest Controller®. ReliantHeart's HA5 VAD delivers proprietary true-flow measurement information to the HeartAssistRemote Monitoring System, powered by Numerex Network.

   Small enough to be placed in your pocket, the HA5 connectivity device serves a vital role as it transmits blood flow and related data via a secure wireless M2M connection for remote monitoring. Similar to a cell phone, when in range of a cell tower, ReliantHeart's Conquest Controller is constantly in contact with more than 480 cell carriers to provide the world wide data network that carries life-saving data remotely from HeartAssist5 patient database to the networked call center.

| Patient with HeartAssist5 | Conquest Controller | Numerex Network Solutions | FlowAccurate Diagnostics | Cardiology Team |

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Numerex®
Smart Data Delivered™