

MDDI

Medical Device & Diagnostic Industry®

2005 Awards

Bold Advances, Breakthrough Benefits

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MDEA 2005



One Small Step for Medical Devices

Design improvement means building on existing innovation, but this year's MDEA winners took some leaps and bounds.



The LifeSync Wireless ECG System by GMP Wireless Medicine Inc. uses Bluetooth technology to eliminate lead wires and trunk cables. It works with existing hospital equipment.

LifeSync Wireless ECG System

As the device industry moves into wireless communication, it is only natural that patients should be wireless as well. In a hospital setting, however, that has not always been an option. MDEA juror Stephen B. Wilcox, principal for Design Science Consulting Inc. (Philadelphia), notes that several companies are working to create wireless devices in hospitals. "Many people who work in hospitals are asking 'How do you get rid of all the spaghetti?'"

To answer that, GMP introduced the LifeSync wireless ECG system. The system was designed to eliminate lead wires and trunk cables between patients and bedside 12-lead or transport ECG monitors. All told, the LifeSync costs about \$1400 for the monitor transceiver and \$1400 for the patient transceiver.

The LifeSync has two electronic components using Bluetooth technology that function as two-way radios. These radios collect and transmit ECG and respiration data to a hospital's existing ECG monitor.

"What strikes me about the product," says Wilcox, "is that it doesn't require new monitors—it's retrofit."

The transceiver then communicates with the LeadWear system that sits beside the bed or goes inside the patient's pocket. Another feature of the system is a disposable cable that can help maintain a sterile environment.

The leads designed by GMP are flat and conductive. They are molded inside a clear, thin, semirigid membrane to promote faster and more-consistent placement on the patient.

By including features that complement existing machinery, use disposable parts, and make placement an easier process, the manufacturers demonstrated how easing the transition into a hospital setting is as important as using state-of-the-art technology.