

Medical Distributor Puts RFID Tags on Equipment

To improve product maintenance and reduce shrinkage, Wren Medical Systems is adding active RFID tags to wheelchairs, oxygen concentrators and other equipment it rents to its customers.

By Beth Bacheldor

July 25, 2006—Wren Medical Systems, a Midwest medical distributor, is affixing RFID tags to many of the products it rents and sells so the company and its customer can better track inventory and product maintenance.

The company is applying active 915 MHz RFID tags from Israeli-based Etcom RFID Ltd. to infusion pumps, portable MRI machines, wheelchairs, oxygen concentrators, defibrillators and other equipment. The tags' unique identification numbers will be cross-referenced in Wren Medical System's companion electronic tracking software, WrenTrack, which records the lifecycle of each item, so home health-care providers and other customers can track where it is sent, as well as monitor its cleaning and maintenance. The RFID tags will add an extra safeguard to a bar-code system currently in place to ensure the equipment is properly processed, cleaned, maintained and inventoried.

Currently, Wren's customers use handheld readers to scan the bar-coded labels on equipment stored at a checkout station. For example, when an employee starts the checkout process on a defibrillator to be sent to a patient's home, the worker scans the bar code, which initiates a series of questions in nearby computer running the WrenTrack software. Questions include the name of the employee, why the device is being checked out and where it is going. If the device has an upcoming scheduled maintenance check, the software can inform the employee. The addition of RFID tags, however, makes the monitoring more foolproof: If an employee fails to scan the equipment's bar code and fill out the subsequent software questionnaire, an RFID interrogator installed at the checkout station will read the equipment's RFID tag as the equipment is removed and trigger an alert to the WrenTrack system that shows up on all the computers running the software.

Wren Medical Systems still owns any equipment it leases to its customers, so it wants to monitor the inventory and maintenance of those devices. The WrenTrack software is Web-based, enabling Wren to easily track the items from its headquarters in Gurnee, Ill.

To date, Wren Medical Systems has bar coded about 50,000 different devices and expects to have more than 100,000 devices bar coded within the next eight months. By that time, Wren will have put RFID tags on about 25,000 devices, says Michael Ward, the firm's president.

The RFID-enabled WrenTrack system requires at least one RFID interrogator, which can read tags within a 100-meter radius. Ward says that a single interrogator provides sufficient coverage for most of its customers. Each interrogator is linked to a networked server that has an IP address, so Wren Medical Systems can track the RFID readings by customer location. Wren does the complete installation and setup. The WrenTrack system, bar-code scanners and RFID hardware are all options that Wren Medical provides, and customers pay

for them. Wren Medical hosts the software, installs the equipment and does the set up at the customer's premises. So far, Wren Medical has WrenTrack running at about 200 sites. Ward says the firm has already installed RFID capabilities at some customer locations, but declines to elaborate.

Wren Medical Systems believes the addition of RFID will improve asset management for both it and its customers. "With RFID, if something leaves one of the stations without being scanned, we'll know it immediately," Ward says. Together, the bar codes and the RFID tags, he explains, "will tell us, 'What is the real inventory?'"

A more accurate inventory count will help Wren's customers to reduce expenses. The equipment they rent or buy costs an average of \$2,000 per item, and each year, customers lose 10 to 15 percent of that equipment. In addition, health-care companies typically rent or buy 30 to 35 percent more equipment than they actually need because they fail to retrieve equipment from patients in a timely manner.

Says Ward, "The RFID capability allows them to tighten up inventory and save on the number of devices they need and on the amount of devices they lose."

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