

The system provides location information of such high-cost items as wheelchairs and medical devices helping employees avoid placing unnecessary orders.

By Beth Bacheldor

Dec. 22, 2006—The [Harmon Medical and Rehabilitation Hospital](#) has just finished implementing an RFID-based Real-Time Location System (RTLS) to track several hundred assets, such as wheelchairs, pulse oximeters that measure the amount of oxygen in a patient's blood, and other medical devices.

Harmon, a 118-bed hospital that's part of the [Fundamental LTC](#) family of health-care facilities, implemented [Exavera Technologies'](#) eShepherd Location Services solution. This includes active RFID tags and RFID readers operating at 915 MHz, as well as software that calculates the whereabouts of tagged items (see [RFID Remedy for Medical Errors](#)). eShepherd is integrated with the Amelior Tracker software, [Patient Care Technology Systems](#) (PCTS). The software provides Harmon's nurses and doctors with a user interface allowing them to locate assets via graphical maps and drill-down menus. It also provides analytical tools designed to help them better understand usage and inventory processes.

Already, the Las Vegas hospital is discovering new ways to manage assets. In particular, it's recognizing that some employee habits can cost the hospital money. "What was most surprising is we found people don't often look for equipment," says Daniel Mathis, Harmon's executive director. For example, several order requests for wheelchairs have come in since implementing the RTLS several weeks ago, but a quick check on the system discovered a wheelchair sitting in a closet. "When people don't have something, or can't find something, the immediate reaction is, 'Let's just order it,'" Mathis says.

Ordering equipment and devices that are already in the hospital can be costly. "Pulse oximeters are about \$800 apiece," Mathis notes. Not only have assets been misplaced, they've also been inadvertently taken out of the facility by patients or ambulance personnel.

Prior to implementing the RTLS, staffers manually tracked assets via bar codes and inventory sheets. RFID tags have now been affixed to about 300 different assets. Exavera Verafi Premise Routers have been installed in the hospital, while Verafi relays have been plugged into AC outlets in nearly all of the rooms to read tags on any assets in those rooms. The relays transfer the information, via a local area network, to the premise routers, which calculate location and pass that data on to the Amelior Tracker software.

The Amelior Tracker software displays results as both a text-based report, sorted by location, and as a "dot-on-a-map" visual representation. If a nurse clicks on a specific item, the asset record appears, including such information as manufacturer, serial number and calibration or maintenance notes.

"If someone needs something, instead of wasting time walking around looking for it, you can go to a computer, click on what you are looking for, and [the system] will tell you where it is," Mathis says. "[The

Harmon Hospital Implements RFID to Track Assets

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system] will show you a floor plan of the hospital, and dots that represent all the equipment you are looking for."