

The Spanish facility is using EPC tags and readers to not only track a patient's movements and location, but also access clinical information.

By Beth Bacheldor

Oct. 14, 2008—Cabueñes Hospital, located on the north coast of Spain in Asturias, is employing EPC Gen 2 RFID tags and interrogators to monitor patients so they receive the proper care at the right time. The system also provides nurses and doctors with vital information, and patients' families with up-to-date information regarding their loved ones' whereabouts.

The hospital, which serves about 100,000 emergency patients each year, is using SIGHT, an RFID-enabled tracking system from [TreeLogic](#), an RFID systems provider also located in Asturias. SIGHT—an acronym derived from the Spanish words for "hospital smart management system"—includes [Alien Technology](#) passive 868 MHz EPC Gen 2 RFID tags embedded in patient wristbands, [Motorola](#) XR480 RFID readers with high-performance antennas incorporated into portals through which patients pass, and custom middleware and tracking applications developed by TreeLogic. The vendor offers a variety of applications for tracking patients, staff and assets, monitoring workflow, providing access control and security, and locating individuals and objects in real time.

Cabueñes Hospital currently utilizes the patient-tracking application in its urgent care department, and is expanding that application to its surgical department, according to José Angel Blanco González, the director of TreeLogic's RFID unit. The hospital has been operating its SIGHT system since March, and expects to employ approximately 200,000 of the disposable, RFID-enabled wristbands annually.

A patient is outfitted with an RFID-enabled wristband upon admission to the urgent care department. The wristband tag's unique ID number is correlated with that person's name and admissions information, which is all stored in the hospital's back-end system.

Cabueñes has set up nine RFID reader portals: two each in the waiting and observation rooms, one at the urgent care department's entrance and another at its exit, and one each in the radiology, trauma and specialties rooms. The portals capture a passing patient's wristband tag ID number and transmit that number to the back-end system. Nurses and doctors can then access information regarding the patient's status on their PDAs.

For example, caregivers can track a patient's movements throughout the hospital and that person's current location. They can also use the PDAs to access a patient's treatment information, Blanco González says, such as X-rays and analytics. Relatives can then check on their loved ones' status via LCD screens and kiosks situated in waiting areas. To protect privacy, however, patients are identified on the LCDs and kiosks by codes known only to their relatives. Prior to implementing the RFID system, the hospital tracked patients manually, on paper.

SIGHT can help decrease the length of patients' hospital stays, Blanco González says. "The system

reduces waiting times not only because of the tracking functionality, but also because of the use of the PDAs for accessing analytics and X-ray requests," he explains, "and for receiving results, so this accelerates the [treatment] processes."

Antonio Cobo, head of Cabueñes' management and security of facilities service, says the hospital hopes its use of RFID will help it to "improve patient safety, and to improve care management." More specifically, the technology will provide the administration with concrete metrics indicating how long patients stay in the hospital, and how they progress through treatment. "We are confirming the sentence 'What can not be measured, can not be managed,'" Cobo says. "With the RFID system, we are confirming the [kinds of services and treatment times] needed by patients. From an objective point of view, we can plan our future resources."

To date, Cabueñes' managers have been happy with how SIGHT has been working, Blanco González says, adding that they hope to extend the system to other applications as well. "They are studying the use of RFID for medication control," he states, "and, in a completely different application, for laundry tracking and control."

TreeLogic is presently expanding its market reach, and expects to soon install the SIGHT system at a hospital in Santiago, Chile. "We are starting our internationalization process," Blanco González says. "The technology used in SIGHT is usable worldwide, the United States included. Our working method is to distribute and install our products using local partners."

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