Raising the bar for positive patient identification

Portiuncula Hospital, a public teaching hospital in County Galway, Ireland, wanted to automate its patient ID process. On an average day, the hospital's 640 staff manage over 200 beds. Like any modern busy hospital, keeping track of blood samples, drug supplies and patient information is key to maintaining efficiency and the best possible patient care. Automating the patient ID process with barcodes would help reduce errors.

The Challenge

The concept of 'positive patient identification' is much talked-about in the medical world, and is a fundamental requirement for correct patient care. This phrase covers all types of verification and identification practices which effect patients, hospitals and procedures. Using patient ID wristbands goes a long way to ensure the correct drugs are assigned to the correct patient – as hand-written wristbands can be misread, easily damaged or even lost.

Previously ward nurses would have to hand write all patient wristbands using information from the patients medical history. By eliminating this manual process, the hospital would save time for medical staff, allowing them to focus on other aspects of their jobs.

It was also important that the key patient demographics were taken from the hospital information system to avoid the risk of transcription errors.

Effective barcodes

According to Helena Roddy, Haemovigilance Officer, Portiuncula Hospital: "We wanted to implement a blood tracking system to assist with compliance to the EU Blood Directive. The first step in this process was to introduce barcoded patient identification wristbands"

"Implementation and support were also key" Roddy continued. "We needed a solution which required minimal maintenance and expense."

The hospital chose a Zebra solution of printers and wristbands for use with all its adult patients and installed six LP 2844Z printers throughout the hospital as well as working with hospital staff to design the wristband. This design was key to its success, and had to contain the patient's name, date of birth, sex, and hospital number.

"Intially, the new wristbands weren't positively accepted by some patients," said Roddy. "During trials, a number of patient pointed out that their date of birth was too prominent, and could be easily seen by other patients and staff. Older female patients were particularly sensitive to this, which is understandable. Not everyone wants to promote the year they were born, so it was back to the drawing board for us!" The wristband was subsequently redesigned with the date of birth at the back, so it sat on the inside of the patient's wristband.

Solution Technology

Zebra LP 2844Z™ desktop printer

Zebra Z-Band Direct wristbands

Hospitals administration system

The barcode size on the wristband also had to be considered. The original 2D barcode was a PDF417 barcode, The scanners often missed it as it became too big, due to the length of the names. On advice from the local Zebra reseller, it was changed from the PDF417 and made smaller using a 2D Datamatrix code, so it would work more effectively in addition to being future-proofed.

Counting the benefits

Roddy commented that the staff immediately noticed the benefits of the new system. "By removing the manual, handwritten processes, we saved time and improved efficiency. This subsequently allowed doctors and nurses to focus on actual patient care, rather than wasting time with manually form filling and deciphering handwriting."

Positive patient ID also became a key subject among employees using the system. "Suddenly, what was previously a dry subject matter of regulations and national standards became relevant to what staff were doing on a daily basis," said Roddy. "For the first time they could see the benefits of positive patient ID and how it has affected them."

Following a successful trial, Portiuncula Hospital is planning to use the wristbands with all adult in-patients. It also intends to start using the Zebra printers in it's laboratories for durable, high-volume label printing.

"Our new system is efficient and effective, and Zebra's wristbands have been instrumental to this," concluded Roddy. "It made perfect sense to continue working with this technology in other parts of the hospital. We're pleased with what we've achieved with the system in a short space of time, and staff and patients alike have noticed the improvements. In an industry normally associated with shortages and delays, it's great that we've used this technology to develop something that sets the standard for other hospitals, and proves what can be done with minimal time and resource."

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