Zebra® printers and wristbands help improve patient safety and automate the identification process

As science and technology progresses, one of the biggest challenges is to reduce hospital errors as much as possible. As soon as the patient is admitted to hospital, the various processes and the intervention at different levels by medical professionals (from paramedics, nurses and doctors, to administration and laboratory staff), all increase the risk of mistakes being made. For this reason, automatic patient identification (patient ID) has become significantly important in hospitals, where it succeeds in reducing errors virtually to zero.

In April 2007, the Healthcare Department for Valencia Autonomic Government (Conselleria de Sanitat de la Comunidad Valenciana) benefitted from this advanced technology and issued a tender to implement a new patient Auto ID system over 3 years. This new solution uses patient wristbands onto which text or barcodes can be printed directly. This has already been implemented at 28 hospitals

The Challenge

Covering a population of some 5 million citizens, Valencia's hospitals deal with an average of 7,500 daily admissions, and manage approximately 15,000 beds. Tracking tests, records and prescriptions is a critical factor, and the implementation of an Auto ID system can help minimise the risk of errors. The previous system had used handwritten patient wristbands which resulted in misunderstanding and transcription errors.

The Solution

Valencia Healthcare Department selected the printing and wristband ID solution from Zebra Technologies to implement this new system at 28 of its hospitals. The systems integrator involved in this project offered not just the complete solution, but also has also taken responsibility of installing the printers in a fast and efficient way.

This € 1.3 million project will be implemented over 3 years. During this period they will supply 9 million wristbands (3 million per year), of which 8.7 million of these will be in adult size and 300,000 of these in child sizes.

In addition to the 140 printers required, these hospitals will receive a Zebra maintenance support for the project's duration, which will also cover any service issue.

To further improve the wristband printing process, it has been necessary to develop a specific software application. This has been handled by one of Zebra's main channel partners in Spain.

The whole wristband printing process is very simple and efficient. Each hospital has 4 printers plus an additional 1 for backup purposes: 2 of them (1 for each wristband size: adult and child) are located at the general admission desk area, and the other 2 at the emergency admissions desk area – an area which prints the highest amount of wristbands.

Solution Technology

Zebra® LP 2824-Z™ desktop printers

Zebra® Z-Band QuickClip™ wristbands

When the patient is admitted, their wristband is immediately printed and applied to the patient's wrist when they are admitted into their room or an area for undergoing further tests. This procedure allows any member of the hospital's staff requiring information about this patient, to obtain it immediately and without errors, simply by reading or scanning the patient's wristband barcode.

The Benefits

The initial results from this project have seen immediate positive feedback. Valencia hospital staff have stated that "…the new wristbands contain all the information we need about each patient in a clear and error free way."

What is even more significant is that the new patient Auto ID wristbands, both with barcodes and/or with text, provide the resources needed to prevent medical mistakes. This is because it allows any member of the hopsital staff instant access to reliable and detailed information about each patient.

"This advantage increases not only the efficiency of the five basic rules for drug prescriptions at hospitals, and compliance with EC norms, but additionally it protects the patient's privacy and the reliability of the information", adds David Parras, Business Development Manager at Zebra Technologies, for Spain and Portugal.

"The improvement in safety levels and reliability with automated patient identification has been outstanding," concludes Parras "…with a virtually zero error index."

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Valencia Hospital Staff

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