

Prague General University Hospital, Czech Republic



Healthcare Case study

Zebra wristband solution increases patient safety and medicine administration at Prague General University Hospital.

VFN (General University Hospital) in Prague is one of the biggest healthcare institutions and provides specialist care in Prague, the Central Bohemian Region and, in some cases, throughout the whole of the Czech Republic. Around 60,000 patients are admitted every year. More than 2.5 million patient visits are made, and more than 6 million laboratory analyses carried out. VFN employs 5,500 staff.

The Challenge

The objective of implementing this patient identification (ID) solution was to increase patient safety during clinical procedures, as well as streamlining internal procedures relating to accreditation standards and increasing efficiencies. Previously there was only a manual patient ID process which relied on human accuracy. Medical staff would ask the patient's identification at their bedside. However, this method created inaccuracies during drug administration and operating procedures, particularly in cases where it was difficult to communicate with patients due to their poor physical health or mental state.

Medical staff had to search for information held in a central register that contained more than a million patients in VFN. With frequently recurring names, there was also the risk of incorrect data being entered into the hospital's IT system against the wrong patient. This consequently jeopardised the patient's safety.

There is also a significant issue of personal data protection relating to patient ID. Carrying out a search in the full register containing all patient records could also result in personal information, sometimes of a sensitive personal nature, being divulged. The outcome of which could result in legal proceedings.

The Solution

Patient ID using barcode printed wristbands uniquely identifies the patient as well as increasing the safety of treatment procedures and the protection of actual patients. The consequent result is a reduced error rate in patient ID, both when dealing with patients in person during clinical procedures and also for medical staff using the hospital's IT system. The use of this type of technology increases labour efficiencies for hospital staff. It produces standard procedures for identifying patients which can be observed and evaluated. The result is better protection against patients' personal data being entered in to VFN hospital's IT system.

A technology solution for unique patient identification had been successfully implemented at VFN since 1999 by the hospital's IT systems supplier. The hardware platform included Zebra® printers and Motorola hand-held mobile terminals, which resulted in a reliable and effective solution.



Solution Technology

- Zebra® HC100 wristband printers
- Zebra wristbands



The Zebra® HC100™ printer fully satisfied patient wristband printing requirements in a healthcare environment. The key influencing factors were the printer's ease-of-use, the ability to swap wristband cartridges and its optimal design for healthcare activities. With its narrow footprint, the HC100 takes a minimal amount of space. Also Zebra patient wristbands provided legibility, durability and wearable comfort for patients. These wristbands did not restrict patients. Due to the wristband antibacterial layer, the number of patients developing skin problems from wearing these was minimal.

The Benefits

The key benefits are human error elimination when determining patient identity. This ensures the right patient receives the right treatment, and overall patient safety is improved. Patient wristbands can help introduce new mobile diagnostic tools for instant online communication of the results from the patient's examination, straight from their bedside, via the network, to the hospital's IT system. Thanks to the unique identification system, this data is automatically stored in patient monitoring documentation. Nurses therefore no longer need to manually record information on aspects such as blood sugar levels and then upload this same information into the relevant section of the hospital's IT system. This helps avoid and minimise incorrectly recorded results or patient identity mistakes.

Thanks to this unique identification system, a drug administration record solution has been set up at the patient's bedside. When administering drugs, the nurse moves between patients with a mobile drug cabinet. The drug administration schedule is displayed after scanning the patient's identity from the wristband on a hand-held PDA (personal digital assistant) and the actual administration is confirmed by the nurse straightaway on the PDA. This allows not only important clinical data to be collected, but also useful information concerning pharmaceutical logistics.

Consequently patients realise that VFN hospital is focused on and provides quality care. By using wristbands, this significantly reduces the risk to patient welfare. For this reason when given the opportunity to choose a healthcare institution, patients choose the one which deploys state-of-the-art procedures and technology. This is an important aspect in marketing healthcare services where the use of unique identification tools is a key influencing factor.

There is no longer any discussion nowadays about whether to deploy unique patient ID. The only discussion can be about what method or in what format it should be deployed. VPN hospital's patient ID solution based on printing a barcode on patient wristbands using Zebra's technology is economical, practical and user-friendly.

Quote

"The solution based on printing a barcode on patient wristbands using technology from Zebra is economical, practical and user-friendly."

