

## UZ Leuven improves patient safety with bedside terminals and 2D scanning of medicines

### Largest University Hospital in Belgium

Founded 75 years ago, UZ Leuven is the largest hospital in Belgium with some 2,035 beds. It provides high quality medical and paramedical services to ambulant and hospitalized patients in five campuses in the Leuven area. Every day over 8,800 employees and medical professionals provide diverse and specialized patient care. As a leading university medical centre UZ Leuven seeks to maintain and further develop its dominant position by continually improving its quality of care. The essence of the hospital's philosophy is always to work for better and safer patient care. UZ Leuven has put this into practice by gaining accreditation from the internationally recognized Joint Commission International (JCI).

### The Business Challenge

Optimizing patient care and patient safety are at the heart of the hospital's mission. Considering the scale its operation, this requires not only advanced medical practice, but also accurate logistics and foolproof systems to ensure that the right information, resources and people are in the right place at the right time. The hospital's IT-department deploys over a 100 IT specialists, of whom 50 are developers working on its proprietary Hospital Information System. When the nurse call system needed replacing some years ago, it prompted the IT department to seek a single technology platform that would enhance patient care and safety. After extensive investigation and evaluation, UZ Leuven decided in 2010 to equip all 2,035 beds with multifunctional bedside terminals. These touch screen terminals give staff access to the Hospital Information System and offer communication and infotainment to each patient. The system also allows for real time tracking of medicines by using a 2D scanner. This innovative



### Overview:

**Client:** UZ Leuven

**Country:** Belgium

**Market:** Healthcare

**Application:** Tracking of Medicines

**Partner:** Nextel

**Product Solutions:** Honeywell Xenon™ 1900 2D Healthcare version

concept and the quality-driven culture of UZ Leuven were key to its attaining the internationally acknowledged JCI accreditation in July 2012.

### Greater Personal Care with Reduced Workload

Making sure that each patient receives care and attention is the core objective for nursing staff at the hospital. However, this can be a challenge to deliver while also having to run tight schedules and maintain correct protocols and procedures. Now more personal care can be given to each patient because the tracking of medicines is handled simply by scanning the barcode on the patient's bracelet and a 2D label on their medicine. The Hospital Information System processes the data in real time and an audio alert will automatically warn if an incorrect dose or the wrong medicine is dispensed. This prevents mistakes and ensures seamless and efficient administration. With 2,000 patients

receiving multiple medicines three times a day, the system handles an average of 20,000 scans every day.

### Seamless Integration

The bedside terminal system was developed and implemented by the Belgian Telecom integrator Nextel. Together with Televic, who developed high-tech communication systems for niche markets like conference systems, nurse call systems or on-board passenger systems, and Lincor, which offers the MEDVista bedside terminal solution, they tailored the solution to UZ Leuven's needs. The seamless integration of the Honeywell Xenon™ 1900h into their solution made the IT department of UZ Leuven's choice a simple one.



### Patient Safety

The Xenon™ 1900h used at UZ Leuven is specifically designed for healthcare environments. The dense population of hospitals and the concentration of infectious diseases, require a strict hospital cleaning policy. Therefore, the scanners come with a disinfectant-ready housing that is resistant to the harsh cleaning chemicals that are applied to it several times a day. This ensures a prolonged product lifecycle despite the demanding environment. These 2D bar code scanners are aimed at the point-of-care, helping healthcare professionals to reduce errors related to bedside medication administration. The limited space on the label of medicines requires 2D scanning as this technology can include much more information than 1D scanning. In the near future, new applications for colour scanning will also be explored at UZ Leuven. With the ability to capture colour images, the Xenon 1900h Color can also support applications such as wound management and patient identification.

#### For more information:

[www.honeywellaidc.com](http://www.honeywellaidc.com)

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### Key Benefits

- Effective contribution to patient safety
- Fast and accurate scanning of 1D, 2D, image and colour for future development
- Minimized risk of errors, while reducing the workload of the nursing staff
- Easy wireless handling of 20,000 scans per day
- Disinfectant-ready housing to prevent spreading of infectious diseases

### Conclusion

“We are confident that the bedside terminals and the hand-held barcode scanners will drastically improve our patient care and patient safety. To implement this in a fully operational hospital without disrupting key processes or inconveniencing our staff and patients takes several months. By the end of 2012 we plan to have all the beds equipped with the new solution”, says Reinoud Reynders, IT-manager infrastructure & operations of UZ Leuven. “As we have pioneered and developed the complete information system (KWS) of the electronic patient files that is now being used by a group of hospitals called Nexuz Health, this information-based solution might spread to a total of 6,000 beds in the years to come”, concludes André de Deurwaarder, Senior IT Architect of UZ Leuven.

**Honeywell**