



Avignon Hospital Centre, the first French hospital to implement an automated mobile solution for taking biological samples.

According to new French regulation directives governing medical biology laboratories (NF EN ISO 15189), by 2017 hospitals and biology laboratories will have one unified system to manage the process from the beginning to the end. The ultimate objective is to reduce errors, safeguard confidentiality and increase information security relating to procedures for taking biological samples.

Avignon Hospital Centre, with 911 beds and a staff of 3,000, has for several years been renowned for the innovative and dynamic operation of its IT Systems Department. H  l  ne Sol, Head of the Avignon Hospital Centre's IT Systems Department, was chosen as 'IT Department Manager 2011' by 01 Informatique magazine. Avignon Hospital Centre has pioneered the implementation of an IT solution that is fully integrated with the laboratory for issuing prescriptions, as well as for carrying out biological procedures.

Challenge: How to standardise requirements in an innovative, effective and economical way.

The Avignon Hospital Centre has researched and implemented a laboratory prescription solution which not only meets the challenge of automation required by law, but also the need for mobility which has been acknowledged as a priority area by Avignon Hospital's IT Board. The project's performance has also been evaluated by the ANAP (National Performance Support Agency) and Avignon Hospital Centre has applied, with three other healthcare institutions, to take part in a pilot which involves drafting a 'guide for setting and monitoring performance indicators for IT projects in the healthcare sector'.

Mobile Printing Solution

Customer

Avignon Hospital Centre, France

Industry

Healthcare

Challenge

Find an alternative solution to the writing and printing of prescriptions on paper at patients' bedsides as part of new regulation compliance

Zebra Solution

Zebra QL mobile printer

Results

- Reduce examinations by 12-16% by eliminating the need for repeat procedures
- Automation of the prescription chain has reduced the risk of error to almost zero

Consequently the hospital had to find an alternative solution to the writing and printing of prescriptions on paper at the patient's bedside, thereby providing many benefits both to the patient and to the hospital's medical team.



Solution: Zebra® Technologies QL series printers mounted on trolleys, providing both mobility and efficiency.

The solution involved the customisation of trolleys for nurses and doctors. The trolley has a portable 17" Wi-Fi computer installed, running the hospitals' 'Cyberlab' laboratory prescription software, acting as both a results server and a laboratory prescription tool for the various departments. The nurses' trolleys have a slide-out drawer for the computer and a holder for the Zebra® mobile barcode printer.

The mobile trolley is completely standalone and has been designed to enable nurses to print out labels, and validate a patient's medical prescription before taking the sample. The Zebra QL mobile printer was selected for its compact, hand-held size, ease of use and a battery life of several days.

The solution guarantees a fast turnaround between taking and analysing the sample and has been in use since January 2010. Currently 60% of the hospital's departments use the device equating to 148 portable micro-computers and Zebra® mobile printers.

Benefits

Secure information

The software is connected to the hospitals' Laboratory Management System (LMS) which numbers the sample as soon as it is validated by the nurse, then prints the corresponding barcode labels which in turn correspond with the relevant patient's prescription. The complete automation of this process has significantly reduced errors to almost zero.

Improved sampling procedures

A real time-saving can be achieved by labelling the tubes when the samples are taken, which means that there is no need to re-label them in the laboratory. The barcode label guarantees traceability of information, from taking the samples to giving the results.

Comfort and efficiency

Patients benefit from the faster time taken for sampling procedures as the results of analysis are generated more quickly. Healthcare staff also

benefit because practices are standardised across departments, enabling improved information sharing. This smooth information flow simplifies activities significantly, saves time and thereby reduces patient stress. Doctors also benefit from having the results displayed on computers almost in real-time, making it easier to monitor patients.

Financial savings for the hospital

Reducing errors, streamlining procedures and the number of examinations allow real savings to be made on laboratory procedures. This reduction is between 12–16% of all procedures at Avignon Hospital Centre since the solution was implemented. A survey carried out by ANAP to assess this initiative as part of its OISIS project, 'Managing projects by value' also emphasised the positive aspect of this approach, which is in the process of being rolled out across the institution.

The solution is currently being reviewed by other French hospitals who are asking Avignon Hospital Centre to advise them in similar situations. As a leading provider of healthcare 'print-on-demand' solutions, Zebra's team is enhancing its innovation expertise in this sector and continues to support hospital centres in their quest for solutions to meet legislative requirements.



For more information about how Zebra mobile printing solutions could help you to mitigate risk, improve patient safety and increase organisational efficiency, visit www.zebra.com/mobility



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