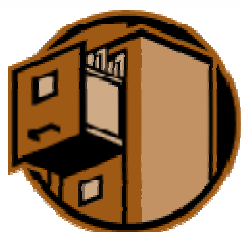




## University hospital's comprehensive ZyLAB solution helps fuel greater efficiency and a safer community

Hospital's technology model ensures FOIA compliance and helps local police pre-empt drink-related violence



### **ZyIMAGE Knowledge Management**

#### **ZyLAB helps the University Hospital of Wales get its archiving under control**

For every patient who visits the UHW unit in Cardiff, healthcare

professionals create four or five paper forms to record patient information. In total, the unit may be required to retrieve information from a databank of 750,000 patient records or x-rays.

The unit's team of receptionists record details such as name, address and arrival time at the accident and emergency department. A doctor or medical registrar will then use a record card and a series of notes to chronicle a patient's injury, diagnosis and the required treatment or medical procedure.

Every patient treated at the unit by healthcare professionals receives a unique UK National Health Service code, which helps identify and record the injury and manner of treatment. This code is electronically recorded by the hospital for any future out-patient visits. These records are then kept for three months as paper documents and are then scanned and recorded electronically for future reference and use by the hospital and other public-sector agencies. Traditionally, thousands of patient records, x-rays and doctors' notes were stored in several secure areas in the hospital or sent to an external storage company.

When UHW moved to the new trauma unit, the UHW staff turned to ZyLAB to help find a solution for better records storage and reduced storage costs, along with better overall document-management and

*The accident and emergency unit of the Cardiff-based University Hospital of Wales (UHW) is one of the busiest trauma units in the United Kingdom, treating 120,000 people each year. UHW's trauma unit is also one of the most technologically advanced healthcare facilities in Europe. But despite their level of sophistication, UHW still faced a common problem shared with many organisations involved in extensive administrative work: finding an effective way to store, manage and retrieve paper-based information.*

*To help solve their document-management issues, in 1999 UHW chose to purchase a limited installation of a ZyLAB digital archiving and information retrieval system. UHW noticed immediate positive results after this ZyLAB installation, and this success was noted by many UHW employees in other areas of the organisation. As a result, UHW decided to upgrade and expand the system for broader coverage of key information-management tasks. Little did UHW know that the impact of their new expanded installation would not only affect them more profoundly than expected but would also positively impact the safety and health of the surrounding community as well.*

information retrieval capabilities. Not only did ZyLAB's digital archiving solution free up many offices worth of storage space—enabling more room for patient care—but the selected ZyIMAGE software expanded overall organisational efficiency by automating the data-entry process. By using ZyIMAGE's barcoding system, a health administrator only has to press a scan button to successfully process all forms. This process paves the way for records and x-rays to be accessible and fully searchable in seconds by doctors and staff, regardless of where they are in the hospital.

According to Assistant Directorate Manager in Emergency Medicine, Roy Simmons, "Even though there are many products which address specific needs within the hospital, ZyIMAGE is the only product which addresses the paper issue in all departments." Mr. Simmons goes on to state that, "ZyLAB exactly suited our needs. We put forward a number of ideas and they delivered them. ZyLAB also went hand-in-hand with our patient management system."

To sum up, Mr. Simmons notes: "ZyLAB technology allows us to retrieve all cases and patient information

in seconds, utilise a smaller storage area in the new hospital and display records to a large number of people at any one time. The system works spectacularly and is yet to fail or be unable to find a record.”

Records and information that had taken some time to retrieve are now found in seconds, which allows managers to allocate and carefully use scarce facility resources in as efficient a manner as possible. And because records have been digitised, the chances that they can be lost or inadvertently misplaced are minimised.

### **Additional impact of UHW’s ZyLAB installation**

Not only is UHW benefiting from more secure record keeping, faster and more accurate info retrieval, and more efficient administrative processes, but they are receiving additional residual benefits as well:

- UHW is better positioned for compliance with the UK’s Freedom of Information Act (FOIA)
- UHW has the ability to use hospital records to help local police pre-empt violent activities in the community

#### *ZyLAB helps ensure UHW’s FOIA compliance*

FOIA was set up to ensure comprehensive information transparency and disclosure in public bodies. With regard to healthcare facilities, FOIA dictates that anyone treated in a hospital can request and receive every piece of information about them held by the hospital. Because of the thoroughness of the UHW’s records management solution, they are also well positioned to be able to comply with the information retention and full-disclosure components of FOIA, which takes affect in January, 2005.

According to Mr. Simmons, “No one knows what the demand for record information will be when the Act comes into force in January 2005, but as far as we are concerned, we have a system in place that is able to do the job and is compliant with the act. We have something like 600,000 accident and emergency patient records on file and the beauty of the ZyLAB system is that it has the ability to search all of the records in around 30 seconds.”

#### *ZyLAB helps make injury prevention information available to local police*

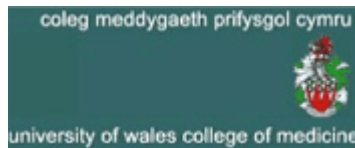
This wealth of patient records, along with the technological infrastructure to access and distribute specific information in them, has enabled UHW to take part in an important community safety project. UHW is the first health-care facility in the UK to pilot

a scheme that makes detailed injury statistics available to help local police pre-emptively combat alcohol-related street crimes.

All of the paper records from UHW’s trauma unit had been scanned and transformed to TIFF or text files. Hospital and police staff then worked out relevant search parameters for this data and used the ZyImage system to search the files, using keywords or other details, for relevant data. The level of detail in the available information enables police to look at the frequency of violent crimes in particular areas—particularly around pubs and nightclubs—as well as review trends in patient profiles (names are not revealed). These types of profiles often contain more useful information than police records because many people are more likely to reveal personal information to hospital staff than to police. These statistics can include the number of people the unit treats with alcohol-related injuries and where they were first assisted by the local ambulance service, as well as any other health related information that may be useful to police.

Mr. Simmons explains, “With careful use of hospital statistics, we are able to better prepare ourselves for any potential crisis situation. By informing the police about the number and types of injuries our staff treat on a weekly basis, officers can target potential problem areas. By working with pubs, clubs and independent security companies, the result is that officers are able to reduce crime in the town and the number of people we may also have to treat.” The project has been linked to a 20% reduction in the number of people treated for drink-related assaults, which, according to Simmons, is around 1,000 less assaults per year.

In addition, information collated by trauma unit staff using ZyIMAGE can also be used to help the Cardiff emergency services plan strategies for major public events such as the FA Cup Final or a Five Nations rugby match at the Millennium Stadium. Working together, UHW’s trauma unit and the police are able to jointly target areas of concern in Cardiff, allowing both public sector agencies to increase productivity and make better use of their combined resources. "It's a quid pro quo," Mr. Simmons said. "If the police can reduce the number of assaults fewer people turn up at the emergency and accident department, and this allows us to change our allocation of resources."



FOR MORE CASE STUDIES AND WHITE PAPERS, SEE OUR WEBSITE:  
<http://www.zylab.com>