

Bringing Digital to Derbyshire

KODAK'S HEALTH IMAGING GROUP was recently selected by Chesterfield and North Derbyshire Royal Hospital NHS Trust to install an end-to-end digital image management solution, comprising capture, print, distribution, storage and service solutions. The project was implemented in March after 11 weeks – two weeks ahead of schedule – and will deliver enormous clinical and economic benefits for Trust staff and patients alike.

When the Trust made the decision to digitise the capture and storage of its radiology images, it became clear that the radiology, IT and clinical departments each had different digital imaging requirements. To address the varying requirements the Trust chose Kodak's Health Imaging Group to provide an integrated image management solution for Chesterfield Royal Hospital and the satellite departments throughout North Derbyshire.



Senior Radiographer Neil Innes loads a cassette into the Kodak DirectView CR long-length imaging system



Consultant Radiologist Dr Peter Sheppard using one of nine diagnostic workstations



Neil Innes sets the Remote Operations Panel

DEMAND FOR DIGITAL

Before the Kodak installation, the radiology department had been using conventional X-ray film with daylight loaders, but wanted to make improvements.

"With a conventional film system, there is the risk of films going missing," said Gary Ferguson, Radiographer and Key Operator Trainer at Chesterfield Royal Hospital. "We carry out 120,000 radiology examinations every year so we also had a huge physical film store, and archiving was becoming a problem."

The Local Health Community made the decision to modernise its image management solution after a wide variety of staff, from radiologists to consultants, stated their interest in a digital system. With the Trust spread out over several sites, buy-in from more than just the radiology department was essential.

"We were receiving requests for a digital image capture and distribution system from across the hospital. Naturally, our imaging department was keen for PACS to be installed, but the demand from clinical staff on the wards, as well as from consultants, was very high," said Paul Hetherington, Head of Health Informatics at the Trust. "In the end, the decision to install a PACS boiled down to four factors – its value as a diagnostic tool and the improved quality of image it offers, the clinical benefit it would provide across several hospital departments, economic benefits, and the clear link to the modernisation agenda."

KODAK'S UNIQUE SOLUTION

Kodak worked closely with the Trust's IT team to determine the exact requirements and to ensure that the solution was compliant with the new NHS regulations for IT in the hospital environment.

"Moving to digital was a big step for us, and we needed to ensure that our supplier was a trusted partner, with a thorough understanding of our IT and radiology needs. The solution provided by Kodak met all our criteria," said Paul Hetherington. "The Kodak team was on site for 12 weeks during the planning and implementation stages of the project, to ensure that everything was running smoothly and to troubleshoot any problems on the spot."

The new system was rolled out in Accident and Emergency (A&E), Orthopaedics and the Emergency Management Unit (EMU) in mid-March 2004. The whole Trust is expected to be linked to the system by end of May 2004.

AFTER SALES SERVICE AND SUPPORT

Moving to a digital system places high demands on the skills of all users, particularly those used to conventional systems.

"Technology is becoming an increasingly important part of the medical world. Clinicians are using technology more and more in their daily practice, and new NHS regulations promise a growing influx of technology into the medical environment," said Paul Hetherington.

"However, for people used to conventional equipment, this can be a big step," he added. "Kodak is helping remove the nervousness associated with going digital by providing users with hands-on training as part of the package. Ultimately, the Trust hopes to remove the film and paper side of its business completely, and this is a first step."

BENEFITS

Initial feedback about the system has been very positive. "The whole radiology team is very excited to start using the system. The diagnostic workstations are already in place, and people love being able to see several images in one window, a feature which will certainly enhance diagnosis," said Gary Ferguson. "The beauty of the PACS system is that images will be available to consultants on the ward within seconds of sending them to archive, which is sure to decrease treatment times and ultimately, increase patient satisfaction."

Alison Rymdzionek operates one of five Kodak MasterPage Quality Assurance Stations



Clare Adams Diagnostic Systems Manager with the Rack Mounter Server and RAID

KEY BENEFITS OF THE KODAK SOLUTION

CLINICAL BENEFITS

- Increased patient satisfaction through faster treatment and fewer delays associated with lost images
- Improved diagnostic accuracy and reduced clinical risk
- Lower patient radiation dose due to lower re-examination rates.

OPERATIONAL BENEFITS

- Improved workflow for acquisition, diagnosis and review of images
- Greatly reduced film and image archiving space
- Fast distribution of images, helping to reduce patient length of stay.

ECONOMIC BENEFITS

- Reduced film chemistry, storage and wastage costs
- Reduction of staff required for film-handling, allowing re-distribution of human resources
- Increased reporting productivity, reducing the need for additional radiologists.

STRATEGIC BENEFITS

- Ease of integration later with Electronic Patient Records (EPR) systems
- Alignment with national drive to improve patient care using telemedicine
- Remote consultation with specialist centres, ensuring optimal use of NHS resources.

