

## Switch on to IT benefits

*Colin Jervis, Director, Kinetic Consulting Ltd*

The National Programme for IT will have much to offer doctors if it becomes fully integrated with patient care, says health care IT expert Colin Jervis



**The National Programme for IT (NPfIT)** will give the NHS in England access to the largest network of patient-based information in the world—but many doctors seem unimpressed.

By contrast, they remain enthusiastic about localised IT systems like PACS and specialist departmental systems. Could this be part of the cure for their strategic scepticism?

In Victorian times the views of a doctor and the leader of a great public health project also differed. The sound of the Broad Street pump handle being removed at Dr. John Snow's insistence on the 8 September 1854 marked the end of an outbreak of cholera in London's Soho. The sound could also have marked the end of cholera in London, if anyone had listened.

The authorities rejected Snow's theories that cholera was transmitted by contaminated water and continued to believe that noxious vapours caused the disease. It was fear of the stench from London's open sewer the Thames that finally drove Parliament in 1858 to approve Joseph Bazalgette's grand scheme to build a network of sewers across 80 square miles of London.

### **'Doctors continue to innovate with IT systems that are relevant to their work'**

By 2010 another grand scheme, NPfIT, aims to connect more than 100,000 doctors and 400,000 nurses and other healthcare professionals in England to an IT spine. NPfIT will also provide a care records service, electronic booking of hospital appointments (Choose and Book), picture archiving and communications systems (PACS) and electronic transmission of prescriptions.

With so much in prospect, why is doctors' support for NPfIT at a low ebb? They are concerned about training, protecting patient confidentiality and systems security and access. They are also anxious about losing data on current systems and the NHS's ability to deliver IT projects.

Such matters are fundamentally important. In particular, NPfIT must reassure doctors that it can deliver such a large, ambitious and complex undertaking. Without doubt, NPfIT has some

challenging aims, such as the delivery of a shared national record together with the operational and technical infrastructure to support it.

On the other hand, the value to the NHS of many systems in the care records service (CRS)—such as order communications and electronic prescribing—has already been proven. So, doctors can be more confident that such systems will be delivered and will be relevant to their work.

### **Higher level**

I think the debate about NPfIT must be raised to a higher level. Expecting doctors to be turned on by such matters as access control and the transfer of records is like expecting John Snow to have been inspired by the design of Joseph Bazalgette's sewer channels and the daring use of Portland cement in their construction. After all, most doctors are interested in what IT can do for them and their patients.

The BMA states that NPfIT 'could revolutionise patient care and fundamentally alter doctors' working practices and the doctor-patient relationship.' But no-one is yet telling us how this revolution could take place.

Meanwhile, doctors continue to innovate with IT systems that are relevant to their work. Systems such as picture archiving and communications (PACS) and specific departmental systems remain popular. Perhaps partly as a consequence, the implementation of such systems is usually successful. Neil Derbyshire, Consultant Radiologist at the Royal Berkshire Hospital in Reading, has recently been part of a PACS implementation (see case study). He said: 'It's been highly successful. It's of immediate, proven benefit. It's a bit like the advert: it does exactly what it says on the tin.'

**'Any on-call doctor who has had to search for a paper record at three in the morning will appreciate the value of an electronic record that is always available'**

Dr. Carl Waldmann, Consultant Anaesthetist, also at the Royal Berkshire Hospital, led the procurement of an ICU system that went live in 1999. The system collects and stores clinically rich information and is popular with ICU staff. 'We wanted a system to give us better audit trails, reduce errors due to lack of information, reduce documentation time, and hence spend more time with patients,' said Dr. Waldmann. 'Also, we were becoming vulnerable by the lack of information needed to justify increasing resources.'

Any on-call doctor who has had to search for a patient's paper record at three in the morning will appreciate the value of electronic patient record (EPR) that is always available from any terminal.

### **Promote innovation**

But there is more to an EPR than that. Much of the power of an EPR comes from being able to share it in, and across, care settings. Sharing can promote innovation, new patterns of care and stronger professional relationships. Here at least, there is scope for doctors to be enthusiastic.

John Snow was right, of course, cholera is water-borne. Nonetheless, Joseph Bazalgette's network of sewers rid London of cholera and, 140 years on, continues to underpin the city's health. The two men worked only a short distance from each other, but never met—we can only imagine what improvements to health might have resulted if they had done so.

To be successful, health IT systems must become fully integrated with the process of patient care. To achieve that integration in England's NHS and to help make strategic vision a reality, NPfIT must work hard to fuel doctors' enthusiasm and creativity.

### **Case study: imaging system PACS punch**

The Radiology Department of Reading's Royal Berkshire and Battle Hospitals NHS Trust (RBBH) clearly relishes a challenge. In November 2002, the department went live in new building with new equipment—including a computed radiography (CR) system, a radiology information system and a picture archiving and communications system (PACS).

The GE Healthcare PACS stores and distributes clinical images across the Trust. CR has replaced conventional plane films with special plates which are then scanned. Images from other modalities, like CT, ultrasound, fluoroscopy, mammography and magnetic resonance imaging (MRI) are sent direct to the PACS.

The Department was very concerned about staff training, but it needn't have worried. Doctors had few problems adapting to the PACS. Clerical staff redeployed to the reception desk rose to the double challenge of learning to do a new job and to use a new radiology information system.

'There are brilliant practical benefits, but they are difficult to quantify, especially in financial terms,' says Neil Derbyshire, Consultant Radiologist. Nonetheless, the Radiology Department realised all of its business case benefits, including savings from chemicals, film filing, film processing and a reduction in clerical staff.

'Two people can look at an image at the same time,' Dr. Derbyshire explained. 'I can have a call from a consultant in clinic, who has the patient in front of him. We can have a telephone conversation about a chest X-ray in front of the patient. I can allay the patient's fears, or arrange for them to go for a CT scan.'

RBBH Radiology also shares images and reports across care settings. The GPs who provide Newbury Hospital's out-of-hours A&E service can discuss PACS images with their hospital colleagues. Consultants are also looking forward to sharing images with a cross site multi-disciplinary cancer team based at Wexham Park Hospital in Slough.

'I don't know of anyone that's ever said "I wish we could go back to the old system",' Dr. Derbyshire says.

*PACS image by kind permission of GE Healthcare.*

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