

Basingstoke and North Hampshire NHS Foundation Trust unites the 'clinical five'



Using an IBM Clinical Portal Solution to improve patient outcomes, performance and efficiency

Overview

Business challenge

As part of its strategy to deliver the 'clinical five' – the five key elements defined by the Department of Health as necessary to create a tipping point in demand for clinical IT systems – Basingstoke and North Hampshire NHS Foundation Trust automated its paper-based processes for ordering tests and prescribing drugs using IT systems from Sunquest Information Systems and JAC. The Foundation Trust then saw an opportunity to make this digital information more easily accessible for clinical staff.

Solution

The Foundation Trust used an IBM Clinical Portal Solution to unite data from five separate IT systems into a single portal that doctors and nurses can view via a wireless connection from anywhere in the hospital. Using this Clinical Portal, clinicians can review patient information and medical records, order lab services such as radiology and pathology, view test results, prescribe medication and prepare discharge documents and correspondence, instantly and in real time, without leaving the patient's bedside.

Basingstoke and North Hampshire NHS Foundation Trust (BNHFT) provides acute hospital services to a population of around 300,000 patients in Basingstoke, Tadley, Alton and Bordon, as well as surrounding towns and villages in north and mid Hampshire and west Berkshire.

The majority of services are provided from Basingstoke and North Hampshire Hospital, which was built to the north of Basingstoke town in the 1970s; but the Trust also provides outpatient and assessment services from Alton and Bordon community hospitals.

Like all NHS Foundation Trusts, BNHFT continually strives to raise the standard of patient care and safety in its hospitals, and dedicates the highest possible proportion of its budget to front-line services. One of the most important strategic initiatives in meeting these objectives has been the adoption of the 'clinical five' – the five key elements defined by the Department of Health as necessary to create a tipping point in demand for clinical IT systems among clinical users.

The clinical five are: a patient administration system that integrates with other systems and provides sophisticated reporting; a system that manages order communications and diagnostic reporting; a system that automates the creation of discharge letters with coding; a scheduling system; and a system for e-prescribing.

BNHFT deployed Sunquest ICE™ for pathology and radiology, a solution from JAC for e-prescribing, IBM® Clinical eForms for clinical correspondence, and several other standalone systems to meet the other requirements.

Seeing the opportunity for a united 'clinical five'

"In less than two years, we were able to digitise a very considerable amount of information and introduce automated workflows that allowed us to eliminate a lot of previously paper-based processes," comments Andy Thomas, Chief Information Officer at BNHFT. "Sunquest ICE has made it much easier to handle all aspects of communications between the pathology and radiology departments and the rest of the hospital, while the JAC e-prescribing system helps to promote safety and ensures all medication is prescribed, verified, dispensed and administered securely and efficiently."



Business Benefits

- Provides the insight physicians need to make rapid, accurate diagnoses based on access to up-to-the-minute information, improving patient outcomes
 - Improves visibility of vital clinical information such as a patient's allergies and medical history, increasing safety and efficiency when prescribing medication
 - Eliminates administrative delays and enhances operational efficiency, as all information is available instantly and test results are published in real time
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— Andy Thomas, Chief Information Officer,
BNHFT

“It was a huge step forward for the hospital, but we quickly identified an opportunity to create even greater value. We realised that if we could unite the data from our clinical five systems into a single portal, and enable our medical staff to access it from anywhere in the hospital, we could really transform the way our hospital worked.”

Building the business case

The project team built the business case for the new portal solution on two main factors: the government's requirement to deliver the clinical five in a way that promotes the use of IT in the clinical environment, and the enormous potential benefits for patient safety.

“By eliminating paper-based processes and reducing the risk of duplicating tests, x-rays and prescriptions, the solution is also likely to avoid unnecessary work and reduce costs,” explains Andy Thomas, Chief Information Officer. “But the real basis of building support for the project across the Foundation Trust was the fact that we could potentially improve clinical outcomes by giving our medical staff the information they need to respond more quickly to emerging situations.”

End-to-end implementation

Working with IBM, the Foundation Trust upgraded its network infrastructure, creating a hospital-wide wireless network that would allow staff to log in to clinical systems from anywhere in the hospital using their laptops. Next, the team developed a service-oriented architecture, using the IBM Healthcare Integration Platform as a messaging hub to pass data between the clinical five systems and an IBM Clinical Portal Solution.

Instant access to clinical information

“The solution gives our clinical users the key information they need on a single screen: information about the patient and their medical history, allergies, test results and prescriptions,” says Andy Thomas, Chief Information Officer. “It also allows the user to request services from the radiology and pathology departments and create prescriptions, and it will also enable the entry of new medical notes and create clinical correspondence such as discharge summaries.

“Everything is presented via a simple, intuitive web interface, and the information is instantly available, accurate and up-to-date. Best of all, thanks to the new wireless network, users can access the dashboard wherever they are in the hospital, so there is no need to leave a patient's bedside to get information, submit requests or view test results.”

Solution Components

Software

- IBM® WebSphere® Portal Server
 - IBM WebSphere Message Broker
 - IBM Forms
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— Andy Thomas, Chief Information Officer,
BNHFT

Eliminating paperwork

Tests and prescriptions can now be ordered online instead of via paper forms, providing full visibility of which tests have been ordered and whether they are in process. Results can be delivered instantly, as soon as they are available, which reduces delays and helps ensure that patients receive the right treatment as soon as possible. Finally, when a patient is ready to leave the hospital, the discharge summary is sent electronically to their GP in real time, helping to create a more joined-up health service across the whole region.

In the near future, doctors and nurses will also begin entering all clinical notes directly into the patient’s electronic medical record, or their handwritten notes will be scanned into the system. This will enable the Foundation Trust to gradually phase out all paper-based records, which should lead to a significant boost to the availability of information.

For new patients making their first visit to the hospital, all clinical activity will be captured electronically, so it will be possible for medical staff to find all the relevant information about them instantly, with no need to search for the right file and read through pages of handwritten text.

Enhancing patient care and operational efficiency

The solution that the Foundation Trust has built with IBM delivers vital advantages that are critical for both patient care and operational efficiency. The availability of information in real time (instead of spending time hunting for the right data to make an accurate diagnosis, or going to a secondary data store) means that clinicians have accurate data at their fingertips.

Increased automation (for example, when ordering an x-ray, the request is automatically passed to radiology and the whole process is monitored) means there is no longer any need to rely on the right piece of paper being delivered to the right place. This results in considerable administrative time savings.

Andy Thomas concludes: “The possibilities for the solution don’t end with what we have already achieved. The flexibility of the service-oriented architecture approach means we can keep extending the architecture to deliver more advanced clinical functionality.”

For more information

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To learn more about Basingstoke and North Hampshire NHS Foundation Trust, visit: www.northhamshire.nhs.uk



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