



Company Details

Salford Royal NHS Hospital Trust is one of the largest Health Trusts in the country, serving a population of over 300,000. As a medium-sized teaching hospital providing specialist services, patients come from all over the country to be treated.

Location

- UK

Industry

- Healthcare

Business Challenges

- Deliver EPR system in line with the Government's National Strategic Programme
- Enable single patient view across departments
- Allow real-time delivery of critical patient information to those that need it.

Solution Overview

- Evaluation of integration suppliers – SeeBeyond chosen as integration platform
- Creation of Electronic Patient Record (EPR) system
- SeeBeyond used to integrate PAS, Pathology and Radiology into the new EPR

"The EPR system is now essential to the smooth running of the hospital, and the staff love it. One Consultant said, 'Before we had the system I'd know why a patient was coming to see me. What I didn't know is who else they'd seen in the last six months, but I do now.'"

John Elliott, senior EPR technical analyst

Business Challenges

Salford Royal NHS Hospital Trust, in line with the UK Government's National Strategic Programme, was looking to create an Electronic Patient Record (EPR) system to enable a single patient view across departments, using integration technology as the enabler. Previously the patients' records were held in many disparate systems and databases across many departments making it difficult for carers to have access to a patient's most up-to-date records and results. The aim of the EPR was to enable information to flow seamlessly to those that needed it, in real-time and thereby improve the service the patient received both within the hospital and as an outpatient.

Solution Overview

In 1999 the Trust started a pilot project, implementing an Electronic Patient Record (EPR) system. As a member of the EPR team, John Elliott, senior EPR technical analyst, began work on interfacing the trust's PAS, Pathology and Radiology systems into the new EPR.

Salford Royal Hospital Trust chose to use eGate Integrator as the integration platform for their electronic patient record system. eGate simplifies connectivity issues between applications and ensures secure, rapid and once-only delivery of critical patient information to those that need it.

"Although I had no previous experience of professional integration software before I started this project, with the help of some colleagues at Epsom & St Helier Trust, who have a similar system, and a five day training course at SeeBeyond, I was soon able to get to grips with the solution," said Elliott.

"We started with six wards in the geriatric unit, where there is a minimum of patient movement, so the number of possible errors would be manageable and easy to track. When that was working effectively the system quickly spread from ward to ward. Next we added Outpatient, clinic by clinic, that took approximately two months. Now a consultant can see the patients that are sitting in the waiting list as they are checked-in for their appointment."

Business Benefits

The patients' medical records are held in the PAS. When a patient is admitted to the acute unit or as an outpatient, eGate relays a message from the PAS to the EPR in HL7 format. Pathology and Radiology results

are transmitted into SCM from the various systems as and when they become available. The system then provides the wards and consultants with a list of patients and their results in real-time.

There are 800 PCs in the hospital, in the consultants' offices, outpatient clinics and wards. Consultants put a diagnosis in, then any pathology and or radiology results are added as they happen. Everything a carer needs to know about a patient is visible on one screen.

The EPR system also receives over 1,500 copies of clinical letters per day through the interface, including outpatients attendance, discharge letters and operation notes. The EPR system is also capable of generating immediate discharge summaries for the patient's GP, which also lists all active medication prescribed on discharge.

In addition to improved communications, Salford Royal's staff also benefit from minimised error and duplication because the new system checks the spelling of patient names, date of birth and the unique hospital number allocated by the hospital on every new data entry. Recently, the Trust has started to add the NHS number as a unique identifier in line with the government's NHS IT Strategy.

Plans for the Future

Elliott and his team are rolling out the system to the community including 40 GP surgeries and Health centres in the Trust. The benefit is that GP's can now see a patient's blood test or pregnancy test results immediately, where previously they would have had to wait for a letter to arrive from the laboratory.

Currently if a Salford resident received treatment at a bordering Trust's hospital, there would currently be no record of their treatment on the Salford EPR system. In the future it would be desirable for there to be interfaces developed with other Trusts systems allowing patients' EPR records to be more complete.

"To give you an idea of the scale of the success of this system, said Elliott. "The interfaces deal with some 20,000 messages a day. Since it went live in July 2000 it has distributed over 5 million PAS messages, 2.4 million Pathology results, 275,000 Radiology results and 670,000 clinical letters. In terms of patients, we have approximately 300,000 outpatients per year, 45,000 in-patient episodes and 80,000 A&E attendees per year, which are all recorded on the system."

Business Benefits

- Secure, rapid and once-only delivery of critical patient information
- Real-time access to patient records and results through a single patient view
- Minimised error and duplication due to automatic record cross-matching
- Support for HL7 standards

Technology Profile

- SeeBeyond Components
- eGate™ Integrator
 - HL7 eWay™

Integrations

- Patient Administration System (PAS)
- Pathology and Radiology systems

Sizing

- Distribution of 5 million PAS messages
- Handles over 1,250,000 patient records