

# Delivering Digital Transformation for Liverpool University Hospitals NHS Foundation Trust

## Paper-Free Health Records

Digitisation in the healthcare sector has four main objectives: ensuring safer patient care, saving costs, improving efficiency and gaining more quality time with patients.

Health and Social Care Secretary Matt Hancock founded his 'tech vision', published in October 2018, on open standards, innovation and encouraging local choice – with a move away from mega-suites. His aim is to transform NHS technology to allow adequate access to real-time patient data. Fortrus Ltd have worked in partnership with The Royal Liverpool and Broadgreen University Hospitals NHS Trust (RLBUHT) over the last few years to provide the Trust and the citizens of Liverpool with a Paper-Free Health Record (PFHR) solution which is a great example of what the Health Secretary is trying to achieve.

## GDE Embraces Technology Partnerships

As one of the first Global Digital Exemplar's (GDE's) RLBUHT chose the best-of-breed approach and selected Fortrus as their strategic managed service provider for Digital Transformation. Fortrus is a best-of-breed specialist in IT solutions, delivering digital transformation through outcomes- based solutions wrapped in a managed service. This approach reduces risk, ensures the most effective and innovative technologies, and provides guaranteed results. Their mission is to radically improve Digital Transformation in private and public sector organisations.

### Customer

The Royal Liverpool and Broadgreen University Hospitals NHS Trust (Now Liverpool University Hospitals NHS Foundation Trust)

### Sector

Healthcare

### Use Case

Electronic patient records accessible by clinicians, admin teams, patients

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### Results

- Fully interoperable EHR that can be securely shared
- Multiple access to patient data at the point of care
- Intuitive, easy to use, user experience
- Reduced storage costs and lost case notes eliminated
- Successful implementation within three months

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### Contract Authority

Countess of Chester Hospital NHS Foundation Trust - Commercial Procurement

### Supplier

Fortrus Ltd

### Title

Provision of Digital Transformation Solutions

### Ref

F/050/DTS/19/JF

### OJEU

2018/S 243-555796



## The Trust

RLBUHT is now part of Liverpool University Hospitals NHS Foundation Trust along with Aintree University Hospitals NHS Foundation Trust.

RLBUHT provides a comprehensive range of specialist services to 750,000 people each year within a total catchment population of more than two million people in Merseyside, Cheshire, North Wales, the Isle of Man and beyond.

In the past year, they provided emergency and urgent care for over 245,000 people, over 92,000 of whom were in their emergency department.

They cared for over 114,000 day- case and inpatients and provided over 600,000 outpatient appointments.

## The Challenge

With the development of a new state-of-the-art hospital underway, which has been designed as a paperless environment with no records storage capacity, the trust set a challenging target for paperless working ahead of the government's 2020 target.

Aiming to generate cost savings and efficiencies, RLBUHT was searching for a solution to increase time spent with patients. Before the project, paper records were stored at multiple physical locations, some off site, causing access difficulties, time delays and significant transport and housing costs. The handling processes were inefficient, labour intensive and prone to retrieval and misfiling errors, with paper records often stuck in a single location – not at the point of care.

RLBUHT set out to implement best-of-breed technology to pioneer digital knowledge sharing, while increasing efficiency, decreasing costs and improving patient care. The scope of the project was to develop a Paper-Free Health Record.

The Trust partnered with Fortrus under a fully managed service agreement that included a best-of-breed partner ecosystem of 14+ suppliers to deliver the optimum outcome. The solution was implemented with the view of being a Liverpool-wide integration, engaging clinicians, non-clinical users and external organisations who required access to the PFHR



## The Solution

Fortrus provided a system that captures all relevant data and makes it searchable and usable for all hospital purposes. Historically, vast quantities of documents were handled in paper format with structured and unstructured data trapped in siloed repositories.

Now all the input is digitised and organised by date, and patient details are easily searchable via keywords. The system also interacts with the patient administration system (PAS) to enable searches across all patients and all clinics.

Specifically, the chosen intelligent capture and classification solution boosted productivity and streamlined workflows. Supervised machine learning classifies, separates and sorts content without the need for human intervention.

The structured data within the document is easily located and extracted, and exceptions are flagged for human intervention.

Supervised machine learning incorporates validation actions to continuously improve the accuracy while getting smarter and adding value over time.

The approach is a continual process that enables the PFHR to evolve over time and constantly meet the needs of future changes, whether that addresses NHS Trust compliance regulation changes or meeting the needs of the organisational drivers for RLBH and its clinicians.

Fortrus' managed service contract has been in place for the last four years and continues to evolve and expand into new areas.

There are currently 6,500 users across two sites using the PFHR solution. Fortrus continues to provide a managed service to digitise all paper records ahead of the move to the new hospital site.



Fortrus Labs  
The Accelerator Building  
Liverpool

***“From the outset, it was obvious that RLBUHT was interested in a long-lasting, trusted relationship to achieve their digital goals.***

***Using industry-specific knowledge from the Fortrus team, along with a deep understanding of the specific needs of the trust and its staff, it was clear that the supplier relationship has been critical to the ongoing success of this project.”***

**Jonathan Lofthouse – Improvement Director Liverpool University Hospitals NHS Foundation Trust**

## **The Results**

The key to success of this project was creating an intuitive, easy to use, user experience. Fortrus engaged users through a research and development approach where operational methods were evaluated at the point of care. Also, crucial to the success of the project was the willingness of the Fortrus supplier network to integrate and exchange information to ensure interoperability and ease of access to critical information.

The PFHR project has already realised numerous benefits, which include reduced storage costs, eliminating lost case notes and more efficient access to data. The historical main records library is centred in Liverpool, with physical storage facilities also at Broadgreen hospital and several smaller satellite sites. However, these locations will soon close once all legacy documents have been scanned and deep stored in line with BS10008. Then, the physical records will be destroyed in line with NHS Trust’s destruction policy.

After implementing the Fortrus solution, RLBUHT was able to minimise manual data entry and make lost documents a thing of the past.

Digital records are more secure than paper records because they can be protected with role-based access and other rules that protect sensitive information from being accessed when it shouldn’t be. Fortrus have created an electronic health record that can be securely shared between primary care offices, specialists, hospitals and nursing homes. The Medical Records library staff gained immediate efficiency savings in tracking, pulling, re-filing, preparing, auditing and locating the health records. The automation of this file tracking process also released clinical staff from this administrative chore and thereby making more patient-facing time available.

Becoming paper-free involves a huge organisational change. It involves bringing new technologies together alongside new ways of working to meet a defined strategic outcome that delivers a wide range of benefits, including improved patient outcomes by utilising complete information. Allowing real-time clinical data capture to support clinical improvement is another important part of the process, especially as it enables the reduction of duplicate data collections and encourages collaborative working between clinicians.

## The Future

Fortrus will continue to work to support the PFHR project through their managed service agreement, and the records digitisation process is set to continue throughout 2020.

In addition to PFHR, Fortrus is delivering the EPR Archiving Project. This facilitates the migration of legacy data from over 10 clinical systems into the Fortrus Health Cloud. This enables users to access the information in perpetuity through the Fortrus Unity archive viewing application, also allowing full interoperability with the digitised patient record and cyber-secure resilience. The future roadmap will support LUH moving many key applications into a secure cloud environment aligning with their 5-year cloud strategy beyond 2020.

All of these projects are being delivered through an outcome-based approach and procured through the new OJEU compliant– Digital Transformation Framework - hosted by Countess of Chester Commercial Procurement Department.

This ground-breaking £10bn capacity framework enables the NHS to procure solutions from ethical, interoperable suppliers for digital transformation and managed services.

***“Undertaking a digital transformation project on this scale in a constantly changing environment, and without compromising patient care, is no easy task.***

***Strong leadership and regular communication with the project stakeholders kept the Fortrus team regularly informed and up to date on the RLBUHT strategy and plans to ensure success.***

***The outcomes were not only beneficial internally to hospital staff, but it will improve the overall patient experience and quality of data and records.”***

**Jonathan Lofthouse – Improvement Director Liverpool University Hospitals NHS Foundation Trust**