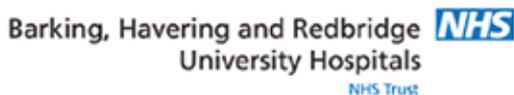


## Healthcare provider implementation

# Implementing a health records tracking solution for a real ROI in record time

Barking, Havering & Redbridge University Hospitals NHS Trust (BHRUT) is one of the largest Trusts in East London with 950 beds in two main hospital sites—Queen’s Hospital in Romford and King George Hospital in Goodmayes—6,500 staff, 950 emergency admissions each day and 600,000 out-patient appointments annually. The Trust needed to make quick and efficient improvements to its health records system after a Care Quality Commission (CQC) report challenged its approach and management. As a result, BHRUT implemented “FIND – IT,” a project designed to leverage GS1 standards, barcodes and EPC-enabled RFID tags to track health records.

*By Andrew Raynes*



## Best place to start

In 2013, BHRUT was instructed by the CQC to improve its labour-intensive health records library model. BHRUT had a limited understanding of the complex flow of its records and their whereabouts at any point in time.

Furthermore, 40 percent of all records were out of circulation at any one time and up to 10 percent were not available at clinics, leading to cancellations.

As a result, extra staff was needed to find the records, which produced significant financial challenges and resulted in poor staff morale and frustrated clinicians and patients. With another CQC inspection pending, the Trust knew it needed to make some real, tangible changes—and quickly. The health records system was targeted as the best place to start.

## Traceability for each health record

Based on the results from a feasibility study by 6PM, a GS1 UK Solution Partner, BHRUT implemented FIND – IT. The project encompassed a complete process change, replacing the management of records of terminal digit filing with a location-based system.

For BHRUT, this new system wasn’t just a superficial add-on technology; it was a transformation programme enabled by IT and GS1 standards, which aligns with the eProcurement strategy<sup>1</sup> mandate issued by the Department of Health (DH). Created in 2014, the eProcurement strategy includes a range of measures to enable transparency and efficiency in NHS procurement to help support patient safety.

<sup>1</sup> eProcurement strategy: <https://www.gs1uk.org/our-industries/healthcare/eprocurement>

The project team, led by key Trust and supplier stakeholders, established the new health records system that was launched just five months after commencement—on time and on budget. The project combined Agile and PRINCE2 project methodology and included a blended training programme for 1,300 staff.

All records and locations were identified and barcoded using GS1 standards, and approximately 65,000 Global Location Numbers (GLNs) now identify each of the Trust’s locations. The GS1 identification data was encoded in EPC/RFID tags. Using 6PM’s iFit software and RFID technology, the tagging of records meant that a network of stationary and handheld RFID-readers and handheld scanners could then track and locate health records at key locations around the building. “Since the system was updated in real-time as each tag was read, we can even determine the direction of each record’s path as it travels throughout the hospital,” says Andrew Raynes, BHRUT’s Information Management & Technology Programme Director.

## Tangible benefits achieved in first year

The main benefit is that records are now available when and where they’re needed. The new system has also had a positive effect on both staff and patients since locating a record has become so much more efficient.

The new system has also reduced the time records spent out of the main file and has increased record filing speed.

“ We can now file 85 health records per hour, compared to 35 per hour before the system was implemented. ”

Andrew Raynes, Information Management & Technology Programme Director, BHRUT

“Before using iFit and GS1 standards, it often took 4 or more staff as many as 5 days to file approximately 2,000 records. Now, 3 staff members can file the same number of records in 1 day, allowing us to reallocate staff to fill other needs in the hospital.”

The feasibility report and subsequent business case estimated a net savings of £1.4 million across 3 years; however, the Trusts is now predicting a £2.4 million return, with 84 percent of the benefits realised in the first year.

There are many benefits associated with using GS1 standards for the improved availability and traceability of records, to include:

- ✓ Improves both clinical decisions and patient experiences.
- ✓ Minimises potential legal claims and any risk of not locating health records.
- ✓ Increases the availability of records for clinical coding and audits.
- ✓ Supports the tracking of other assets such as medical devices, beds, samples and pharmaceutical supplies.
- ✓ Enables compliance with CQC recommendations and the DH retention policy, as a result of new functionality and reporting.
- ✓ Enables visibility of records throughout Trust and the performance of overall system and staff.
- ✓ Increases staff satisfaction as a result of having the right tools for the job.
- ✓ Positions BHRUT for future solutions since the needed infrastructure is now in place with support from all GS1 identifiers.

Before and after the new health records system		
Benefits	Before FIND-IT	With FIND-IT
Unfunded headcount	19	0
Creation of temporary health records	85 per day	44 per day
Unavailability of health records at clinic	<10%	<3%
Pulling records (efficiency) per hour	29	35 or 20% improvement
Filing rate (per person/per day)	90	637 or 700% increased efficiency
Total financial realisation of the business case after 3 years		84%

### About the Author



**Andrew Raynes** is Information Management & Technology Programme Director at Barking, Havering and Redbridge University Hospitals NHS Trust. His recent achievements include the successful deployment of an RFID tracking solution that uses GS1 standards to support location-based filing for

health records. Andrew has over 18 years of experience in the health and private sectors. He has led a number of high profile projects, including the implementation of a GP-led practice at HMP Thameside on the Belmarsh Estate and the implementation of Liquidlogic, a children and adult social care system while at Leicester City Council. Andrew is also an active member of the UK Council for Health Informatics Professions (UKCHIP) and a Fellow of the British Computer Society (BCS).

### About Barking, Havering and Redbridge University Hospitals NHS Trust

Working closely with partner organisations and 6,500 staff and volunteers, **Barking, Havering and Redbridge University Hospitals NHS Trust (BHRUT)** provides outstanding healthcare services to a diverse community of 750,000 people. The Trust runs two hospitals—King George Hospital in Goodmayes and Queen’s Hospital in Romford—and it also serves clinics across outer northeast London. The Trust operates two Emergency Departments, one at each of the hospitals, and offers a full range of local hospital services. BHRUT is proud of its regional neuroscience centre, renowned as a centre of excellence; a cancer centre; and a Hyper Acute Stroke Unit at Queen’s Hospital to provide specialist care.

[www.bhrhospitals.nhs.uk](http://www.bhrhospitals.nhs.uk)



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