

CASE STUDY

NHS Blood and Transplant speed foetal DNA RhD screening



Blood and Transplant

OVERVIEW

Customer Name

NHS Blood and Transplant

Website

[NHS Blood and Transplant](#)

Organisation Type

With more than 5,500 employees nationwide and 300+ partner transfusion labs, NHSBT is responsible for managing and coordinating blood, organ, and tissue donation and transplantation services across the UK.

Product Implemented

Labgnostic - Lab2lab Interoperability

Key Benefits

- Eliminated paper-based forms
- Faster Turnaround Times (TaTs)
- Results entered directly into LIMS
- Enhanced patient safety
- Reduced transcription errors
- Streamlined workflow
- Operational cost savings
- Meets **Transfusion 2024** plan



“Labgnostic’s extensive network in hospitals across the NHS and its flexibility, made it stand out as an attractive choice. There were no comparable products that could match the broad reach offered by Labgnostic.”

Julia Sault

Senior Delivery Lead, NHSBT

RhD-negative mothers now receive critical RhD screening results faster with Labgnostic lab2lab interoperability.

THE CUSTOMER

As a central authority responsible for the management of blood, plasma, and platelet donation, **NHS Blood and Transplant (NHSBT)** helps people do something extraordinary. They enable people to donate blood, organs, tissues or stem cells to save someone in need of a transfusion or a transplant. NHSBT is an indispensable institution supporting all hospitals in England. Its resolute mission is to save and improve lives. With their extensive reach, NHSBT plays a significant role in ensuring the nation’s health and well-being.

THE CHALLENGE

Manual processes risking patient safety

In the ever-evolving healthcare sector, efficient and accurate information exchange is crucial. NHSBT faced a significant challenge due to outdated, manual, and paper-based forms for test requests and results reporting between laboratories. This challenge is common across all diagnostics tests but was particularly important in foetal DNA RhD screening in maternity care. RhD screening is a key test for all pregnant women who have a RhD-negative blood type, where timely reporting can be critical in

avoiding haemolytic reactions between mother and baby.

Manual requesting and reporting of results was impacted by transcription errors, leading to extended test turnaround times, with potential patient safety risks. It also led to pregnant women having to come back to give another blood sample. In addition, hospitals wanted to have NHSBT test results directly transmitted to their Laboratory Information Management Systems (LIMS) to streamline their own processes and reduce manual data re-entry errors at their end. NHSBT and hospitals urgently needed a solution to modernise these processes and elevate patient care.

THE SOLUTION

Modernising laboratory connectivity

To address these challenges, NHSBT adopted Labgnostic, a system-agnostic laboratory interoperability solution. The platform facilitates the electronic exchange of test requests and results among multiple diagnostic organisations. It resolves the complex challenge of digitally connecting labs operating on disparate LIMS and provides a single interface for seamless information exchange.



Julia Sault, Senior Delivery

Lead at NHSBT, stated:

“The decision to choose Labgnostic was primarily driven by its agnostic nature when it comes to interfacing with various systems. Labgnostic’s extensive network in hospitals across the NHS and its flexibility, made it stand out as an attractive choice. There were no comparable products that could match the broad reach offered by Labgnostic.”

Embracing this technology was an ambitious endeavour, and the implementation was not without its share of challenges. Labgnostic had not been previously used in transfusion labs, which made it a completely novel venture for both NHSBT and transfusion lab personnel. The major challenge was the diversity of LIMS used across the 300+ transfusion labs. Unlike hospitals, which often have one-to-one relationships between partner labs, NHSBT interactions are more complex and multifaceted across their wider network covering a large range of blood components and diagnostic services.

THE OUTCOMES

Transforming healthcare outcomes

Despite these challenges, the deployment of Labgnostic marked a significant milestone in NHS Blood and Transplant’s healthcare journey. The benefits extended far beyond administrative improvements; they profoundly impacted patient care, aligning with NHSBT’s mission of saving and improving lives. The transformation brought about by Labgnostic has already been instrumental in enhancing outcomes at NHSBT:

Streamlined workflow

Labgnostic transformed the transition from manual, paper-based processes to an electronic data exchange. It streamlined the NHSBT workflow and provided more timely information directly into the hospital LIMS.

Enhanced patient safety

Transcription errors, common in manual processes, pose a significant risk to patient safety. Labgnostic’s electronic data exchange significantly reduced errors, ensuring lab personnel are working with accurate patient and test data. This heightened accuracy helps ensure patient safety and avert medical errors, safeguarding patient wellbeing.

Operational efficiency

Procedural efficiency also resulted in operational cost savings. Labgnostic’s streamlined workflow eliminated the need for labour-intensive manual processes, enabling NHSBT and Hospital Labs to reallocate resources strategically.

NEXT STEPS

Pioneering expansion and continued innovation

Having successfully piloted e-requesting and reporting on foetal DNA RhD screening, the roadmap moves to increase both the number of tests covered and the hospital labs involved in the network, as well as an implementation of Labgnostic across all hospitals. The goal is enhanced connectivity between all hospitals and NHSBT, allowing them to request red cell antibody investigations next and receive accurate results and clinical advice directly into the LIMS.

However, this is not a straightforward journey. The wide variability of LIMS systems and the differing capabilities of NHSBT’s partner institutions, make it a complex and long-term project. The significance of this project, however, aligns with the objectives outlined in the Transfusion 2024 strategic plan, which focuses on enabling faster access to results to support decisions about patient care.

ABOUT X-LAB

At X-Lab we bring the power of lab interoperability to your organisation. Supporting 95% of UK labs through the national pathology exchange, the company has operations in the UK, Ireland, USA, Australia and New Zealand. X-Lab provides lab-to-lab interoperability solutions, remote order comms and facilitates quality assurance and proficiency testing for EQA/PT providers and labs worldwide.

 www.x-labsystems.com

 hello@x-labsystems.co.uk

 X-Lab Global

 @Labgnostic

