



Bloodhound

 The **Leading** Blood Tracking System

reduced risks during transfusions

improved services from the patient's perspective

right blood in right tube

improved patient identification at the bedside

reduced transfusion errors

improved resource management

Introduction

Nottingham University Hospitals NHS Trust is based in the heart of Nottingham and provide services to over 2.5 million residents of Nottingham and its surrounding communities. The Trust also provides specialist services for a further 3-4 million people from across the region. Nottingham University Hospitals has 80 wards and around 1,700 beds with a national and international reputation for many of our specialist services, including stroke, renal, neurosciences, cancer services and trauma.

Challenge

Nottingham University Hospitals NHS Trust wanted to improve their services from the Patient's perspective. This included improvements in specimen handling and Blood Tracking to reduce turnaround times and error, thus minimising the risk of transfusion related incidents and stress to the Patients by providing Bedside identification of specimen and checking of Blood.

The procurement of a Blood Tracking Solution was also expected to have a wider impact on the cost effectiveness of Patient care services and the development of new ways of working within the Trust, on wards and service departments by staff and other health care workers by:

- Facilitating improved Patient identification at the Bedside
- Reducing transfusion errors by unique Patient identification
- Improving resource management
- Reducing risks during Blood Product/Component transfusions
- Improving "right Blood in right tube" rates
- Improving Blood checking and prescribing protocols
- Facilitating "real-time" Patient records and intersystem communication
- Providing an expandable system for other hospital tracking solutions

The Trust also wanted a solution that would solve all 3 of the NHS "Never Events" relating to Blood Transfusions.

Solution

Nottingham University Hospitals NHS Trust selected, through a tender process, the leading UK healthcare technology company MSoft eSolutions, to implement their Blood Tracking Solution; Bloodhound.

Bloodhound controls access to and from all Blood fridges, by ensuring that only authorised staff are allowed to access the Blood fridge. Access is secured by Bloodhound Kiosks that can only be accessed by using Barcode & PIN Access Cards or with 'Anti-Card Swap' technologies such as biometric fingerprint technology, CHIP & PIN or Active Directory Single-Sign-On systems.

Bloodhound provides further enhanced security and safety with it's bedside management system that allows each bar-coded Blood unit to be matched with the Patient's bar-coded wristband in a matter of seconds. In Nottingham University Hospitals this is carried out on Apple iPods in scanner jackets at the Patient's bedside.

MSoft's Blood-Tracking solution provides positive identification of Users and Patients with in-depth auditing of Blood movements across each and every stage of the transfusion process – to ensure the right Blood is transfused into the right Patient.

Next Steps

Nottingham are considering using Sample360, MSoft's powerful phlebotomy sample tracking and management solution. The system helps to eradicate costly errors in the sample taking process. The use of Sample360 alleviates any inconvenience to the Patient and improves efficiencies within the hospital. Other MSoft Clients have seen their sample rejection rates fall from thousands of samples per year to zero sample rejections by using Sample360 thereby saving money, improving efficiency and reducing risks.



Results

1. Bloodhound has improved Patient identification at the Bedside by utilising hand held devices to scan barcoded wristbands. This has eradicated transfusion errors.

2. The solution has improved resource management in the laboratories and the wards through time efficiency savings.

3. The risks during Blood transfusions has been eradicated as the system ensures the right Blood goes into the right Patient. If a User scans the wrong Blood unit or the wrong Patient wristband the Bloodhound system steps in to prevent the User from starting a transfusion. An alert is also automatically sent to the Laboratory signalling that a User has attempted to carry out an incompatible transfusion. The same will happen if the wrong Blood unit is taken from the fridge.

4. Bloodhound has facilitated real-time Patient record keeping and communication with the hospital's LIMS seamlessly.



Project Implementation

The Bloodhound Fridge Lockdown project started in May 2013 and it went live in September 2013 taking less than 5 months to implement, Over 4,000 people were trained in the use of the system. The Trust has 9 kiosks controlling access to Blood products over 2 locations; City Hospital and Queens Medical Centre.

Bloodhound Bedside project started in September 2013 and it went live in March 2014. It took less than 6 months to implement and 1,500 people were trained in the use of the associated hand held Devices. The Trust now use 41 iPods in scanner cases to manage their transfusion process.

Find out more by visiting: www.msoft.co.uk

