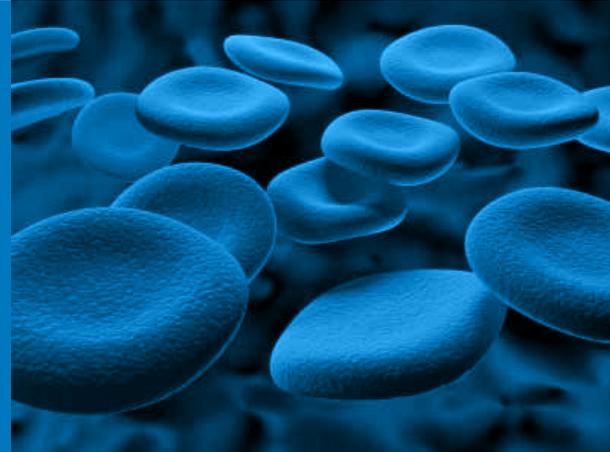


Utilising Barron McCann's unique engineering expertise to facilitate the design and production of hardware for the Blood Audit and Release System (BARS).



SUMMARY

Objective: To develop a robust and reliable hardware solution in partnership with software developers Fordman Systems for the BARS system, developed in 1999 to address the problems associated with the transfusion of blood components.

Deliverables: Barron McCann Engineering Workshop designed and built an entirely bespoke, custom unit for the BARS system.

Outcome: Barron McCann continues to be appointed by Fordman Systems as their hardware vendor, installer and maintenance provider for the BARS systems, which are currently installed in healthcare companies and hospitals across the UK.

“ Blood is a valuable resource that we cannot afford to waste. BARS helps ensure that this asset is controlled safely and effectively.”

DETAIL

The BARS system was developed in 1999 to address the problems associated with the transfusion of blood components. Both SHOT (Serious Hazards of Transfusion) and the National Haemovigilance Scheme have independently identified the main areas of risk as being “from the point of collection from the fridge, to the site of transfusion to the right patient.” It is precisely this risk that BARS is designed to address.

The system tracks the movement of blood products via barcode and constantly monitors storage temperatures. It is a standalone unit, which is supplied as secure hardware, consisting of a computer, pre-loaded with the software, a barcode scanner, a portable scanner and a fridge-locking device. With BARS, blood is monitored and tracked producing a complete audit trail, ensuring full compliance with the 2002/98 EU Directive.



BARRON MCCANN LTD
METEOR CENTRE
MANSFIELD ROAD
DERBY
DE21 4SY
UNITED KINGDOM

Telephone:
+44 (0) 1332 866 500
Email:
enquiries@barronmccann.com
www:
barronmccann.com



THE APPOINTMENT OF BARRON MCCANN BY FORDMAN SYSTEMS

Barron McCann Engineering Workshop designs the unique hardware for BARS in partnership with software developers Fordman Systems. FSL approached Barron McCann in 1999 to provide a second source for hardware to run their Blood Audit & Release System (BARS) software.

Following the design of a custom unit for Fordman Systems they made the decision to abandon their previous supplier and appoint Barron McCann as the hardware vendor, installer and maintenance provider.



Continually being updated and re-designed to meet the changing requirements of various healthcare companies and hospitals, Fordman Systems has now released hardware version 4 and software version 3.0.5.5 of the BARS system.

The BARS units are currently situated in over 120 NHS Trusts and hospitals, private healthcare hospitals and laboratories throughout the UK.

PRODUCT DEVELOPMENT

The original unit built by Barron McCann was designed to be a replacement for Fordman Systems existing unit. Its design reflected the requirements of the customer including a fold-out keyboard & trackball for supervisor access and a magnetic swipe reader for ID cards in addition to a handheld barcode scanner for option selection for the screen and reading barcoded staff ID badges / patient issue requests and blood product packs. The originally produced unit ran Windows 98 and subsequent upgrades allowed the use of Windows 2000 and Windows XP.

The unit was redesigned too and upgraded to meet changing requirements and now has a UK produced custom polycarbonate touch screen to provide additional user operations in conjunction with an on screen keyboard. The screen is covered by a tough polyester front overlay which prevents damage to the screen reducing maintenance and repair costs while also providing a waterproof seal allowing easy wipe down cleaning and reducing possible bug trap.



MAKING TRANSFUSION ERRORS A THING OF THE PAST

- Tracks blood from donor to patient
- Secure automatic access to blood
- Complete audit reporting
- Eliminates the risk of error
- Reduces wastage



An internal thermal printer has been added to provide on demand cross match labels allowing blood to be typed for multiple patients reducing wastage and thus reducing operational costs. Also the swipe magnetic card reader has been replaced with an insertion card reader which also supports chip cards to allow for use of NHS patient bedside terminal clinical access cards for staff ID.

The unit consists of two main parts, the main system unit (computer & display) and a secure wall mounting which also houses the interconnection terminals and ancillary control circuit for the locking mechanism. Once the two parts are fitted together there are no visible fixings which can be used to gain access to the unit.

CONTINUAL DEVELOPMENT & IMPROVEMENT:

Barron McCann host the Bars User Group meetings once a year in Derby, where the developers and the end users get together to discuss any issues and, more importantly, compile a wish list for future releases. The next stage of design development will include a new widescreen display, new easy load printer and a multi-core processor card with larger memory capacity certified for Windows 7 & 8 together with a high speed solid state drive hardware version 5.

THE OUTCOME:

“If we did not have that [BARS], our workload would increase tremendously... We’d probably have to employ another member of staff.”

BLOOD BANK MANAGER

From end-users of the BARS system:

“ Now everything is done electronically, so there’s no more writing, there’s no transcription error. We also know for sure who has taken the blood out of the fridge, we know exactly the time it was taken, so its much much safer for the patient”

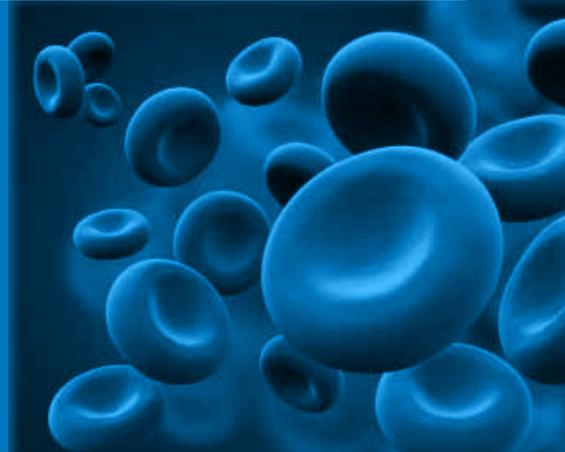
BLOOD BANK MANAGER

“ From the point of view of collection of blood from the laboratory and the administration process and safety of those processes, it has definitely changed my job.”

TRANSFUSION PRACTITIONER

“Because blood is a vital commodity it is essential that the hardware support is offered 24/7 and this is what Barron McCann is able to do. This means that our customers are able to have confidence that should any hardware fault develop Barron McCann will be on hand to resolve the issue within a very short period of time. To have the manufacturer support their product offers the very best solution for our customers.”

VERNON DUNFORD, FORDMAN SYSTEMS.



WHY BARRON MCCANN?

- ▶ Flexibility & adaptability
- ▶ Experience in highly bespoke projects
- ▶ ‘Can do’ attitude to resolving any problems
- ▶ Out of hours support and assistance
- ▶ Excellence in project co-ordination, execution and reporting
- ▶ Qualified, professional, highly skilled staff

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