

Blood shortages: How a supply chain can save lives

This Easter weekend, fluctuating demand for blood coupled with a shortage in supply could add chaos to the road carnage. That is if it weren't for the South African National Blood Service's (SANBS) ground-breaking system that enables the organisation to track and trace every single unit of blood that's out there, together with its supply chain partner, TrenStar.

"For us, delivering blood on time is literally a matter of life and death," says Ravi Reddy Chief Operations Officer of the SANBS. "That's why we couldn't manage without the reliable, flexible, smart supply chain system we've fine-tuned over the past few years."

Learn more about this system when Reddy delivers a presentation entitled, "Smart Supply Chains: Blood on a Returnable Basis" at the SAPICS 2015* conference - taking place from 31 May to 2 June at Sun City - together with TrenStar Services' General Manager, Eddie Fourie.

"Blood on a Returnable Basis (BRB) Solution optimises the usage of this valuable limited resource whilst harnessing intuitive software to save lives," says Fourie. "It makes the impossible possible: getting blood to a hospital within a specified time using track and trace. We've enabled SANBS to pool and manage blood to save lives on a mission-critical level."

Launched in 2006 at the Flora Clinic and the Helen Joseph Blood Bank, the project has now rolled out amongst the Life Health, Netcare and Mediclinic hospital groups in the hospitals which do not have a blood bank on site.

How it works

The system uses barcoding technology to provide visibility over blood stocks, ensure the quality of each unit of blood and improve services to hospitals and patients – a tall order when one's handling fluctuating demand of between 2000-3000 units of blood per day.

"What makes it even more of a challenge is that it's not possible simply to have unlimited blood supplies waiting for patients at hospitals. Orders need to be placed via 84 blood banks that serve around 600 hospitals, which makes it a massive logistical challenge," says Reddy.

"With the system, it's possible for us to track each unit of blood that is ordered from the moment it leaves with the courier until it is received by hospital staff who confirm it is received at the correct temperature," says Fourie. "That is a real example of how time, efficiency and technology combine to bring blood to patients when they need it most. It is a true smart end-to-end supply chain that is endorsed by the Board of Healthcare Funders."

Returnable blood

"The thought of someone dying because they could not access blood is what drives us," says Reddy. "That is why we make sure that blood that is not used at one hospital is kept in perfect condition, ready to be rushed to another hospital to save a life."

The unique 'blood-on-a-returnable-basis' container, specially developed for SANBS, keeps blood cool while enabling continuous temperature monitoring. "That way, patients are not charged for blood that is not used. Also, it can be sent back to the blood bank, ready for redistribution, and all the while being tracked by TrenStar," says Fourie.

Around 7% of all dispatched blood is returned to blood banks – that is a lot of lives saved.

Saving money, increasing efficiency

The system's incredible efficiency has enabled the SANBS to handle a rise in demand of around 4% per year without the cost of having to increase the number of units collected per day by the same amount. At present, the SANBS must collect around 3000 units per day.

"We've also benefited from a system that enables automatic billing and payments," says Reddy, "which keeps us focused on the business of saving lives rather than just business."

What others can learn from this system?

"We've learnt that it's possible to develop an incredibly flexible, agile system that works seamlessly with a call centre emergency solution without having to use off-the-shelf products," says Reddy. "The applications for such a solution are endless, whether it's tracking pharmaceuticals, chronic medications or other high-cost items."

"Also, it's enormously gratifying to know that what we do literally saves lives," concludes Fourie.

Want to find out more? Catch Reddy and Fourie at SAPICS 2015*.

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SANBS will also be providing delegates to SAPICS2015 with the opportunity to donate blood during the conference