



Enhanced patient care
through the power
of proximity

A transformative initiative at a Midwest Medical Center uses point-of-care blood management devices within an outpatient Infusion Therapy Center, resulting in significant efficiency improvements and better patient care.



Having BloodTrack software centrally located, helps us to expedite the care of other ITC patients and more easily obtain blood products for patients with same-day orders."

ITC Nurse Manager

Introduction

Architectural design considerations make it common for hospital blood banks to be located somewhere other than where they're needed most: at the point of patient care.

That was the circumstance facing one large Midwest hospital that maintains an outpatient Infusion Therapy Center (ITC). Staffed by dedicated nurses, the ITC provides a wide variety of infusion therapies including IV medication, IM injection, blood product administration and therapeutic phlebotomy.

Logistics challenges

Similar to other hospitals, the medical center faced logistical challenges tied to its physical layout. The time it took nurses to leave the ITC and return to a patient room with blood units was typically about 15 minutes. With an average daily outpatient volume of 140-160 patients, the aggregated amount of time devoted to physical transport of blood units by a single nurse could be measured in hours. Walking time wasn't the only impediment, however. The process also left nurses responsible for managing proper handling once blood left the blood bank.

Clinic leaders who recognized these constraints set out to create a better process. The Transfusion Medical Director envisioned an automated, closed-looped, decentralized blood product delivery system that would provide ITC caregivers safe, timely and proximate access to the right blood product, for the *right* patient, at the *right* time.



A new solution

The approach was seen as a way to solve logistical issues and improve efficiencies by storing blood products closer to the patient and by eliminating the time nurses spent at the blood bank window for “read-back” confirmation.

The hospital leadership applied specific metrics to their objectives, focusing on measurable outcomes involving:

- **Patient-to-RN ratios.** For the ITC, a daily outpatient volume of 140-160 patients and average 15-minute round trip travel time meant that even small delays at the blood bank window produced unwanted ripple effects. The new process was designed to better balance patient/RN ratios and permit more predictability in staff planning.
- **ITC patient stay/wait times.** ITC nurses often had to repeat pre-transfusion vital signs because too much time elapsed between the moment vitals were gathered and the moment when a nurse returned with blood units. These inefficiencies led to a longer patient wait times and ultimately a longer stay in the ITC.

To address these objectives, the hospital turned to Haemonetics and the company's BloodTrack® just-in-time blood management system, powered by the BloodTrack OnDemand® software coupled with the BloodTrack HaemoBank® blood storage device. The HaemoBank device, which the facility restocks 1x per day, uses the BloodTrack OnDemand software to monitor and manage inventory while maintaining a bidirectional interface with the SafeTrace Tx® transfusion management software system used within the facility. The transformative outcome of this “just-in-time” blood management system is to dispense the correct blood unit for the assigned patient in less than 60 seconds, while maintaining traceability. [Improvements referenced are the experiences of one user and results may vary for other users.]

Today, a BloodTrack just-in-time blood management system (the BloodTrack HaemoBank device coupled with the BloodTrack OnDemand software) is located directly in the ITC, where it supports transfusion needs both for ITC patients and others being cared for in nearby locations within the hospital.



The HaemoBank device is conveniently located right in the unit, creating a big time savings for the Nurses.”

ITC Nurse Manager



Efficiency improvements

By effectively obviating the issue of physical distance, the BloodTrack® just-in-time blood management system has created significant improvements in logistics and efficiency, as it sharply reduces (or nearly eliminates) the need for nurses within the ITC and in nearby locations within the hospital to leave the patient care area in order to retrieve blood products.

Instead, nurses can plan their work with more predictability and certainty while reducing back-and-forth communications with blood bank staff. Now, when a patient requires a transfusion the nurse checks BloodTrack Enquiry clinical transfusion workflow software, a module of the BloodTrack software, to confirm whether there is blood available in the nearby HaemoBank® device, or if they need to retrieve the product from the blood bank. For nurses in the ITC, the time savings and efficiencies are profound. Now that the HaemoBank device is located in the heart of the ITC, nurses don't need to leave the Center to obtain blood for the majority of patients; consequently, they spend less time away from the patient. Additionally, keeping staff in the ITC makes it easier to maintain nurse-to-patient ratios not only within the ITC but on nearby floors where non-ITC nursing staff can access blood products for their patients.

If there is blood available in the HaemoBank device, the ITC nurse takes pre-transfusion vitals and then proceeds immediately to the HaemoBank device to obtain blood, collapsing what often was a two-part step. (Previously the ITC nurse often would need to retake pre-transfusion vitals ;a second time due to the amount of time elapsed getting blood from the blood bank.)

Having the HaemoBank device located in the ITC has also helped to expedite the care of other patients in the Center and more easily manage obtaining blood products for patients with same-day orders.

The hospital also has catalogued positive adjustments in work demands of blood bank staffers, whose time has shifted away from issuing products and instead toward monitoring inventory and restocking. Following implementation of the new system serving the ITC and nearby floors, the blood bank has measured a 60 percent average monthly reduction in blood issued at the issue window for non-surgical patients. [Improvements referenced are the experiences of one user and results may vary for other users.]



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ITC Nurse Manager

The customer experience testimonial described here relates an account of a single institution's experience using BloodTrack software. The account is genuine and documented. There may be factors other than the use of BloodTrack software that could affect the ultimate outcome this institution experienced. However, we do not make any representation that this institution's experience is typical, and indeed it may not be typical. This institution's experience does not provide any indication, guide, warranty, or guarantee as to the experience other institutions may have with BloodTrack software. The experience other institutions or customers may have with the product could be different. Experiences managing blood supplies, with or without BloodTrack software, can and do vary among institutions.

For a list of worldwide office locations and contact information, visit www.haemonetics.com/officelocations

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