



A new (and faster)
approach for
trauma patient care

BloodTrack[®] software implementation helps a southeast trauma center obtain emergency blood faster, fostering staff efficiency and more accountable patient care.



The BloodTrack Emergency Blood Management system provides an entire cooler of blood – five units of RBCs and five units of plasma – that can be dispensed in less than two minutes and can roll alongside the patient to support ongoing blood needs as the patient travels to surgery.”

Trauma Center Physician

Introduction

It was a case of good intentions gone awry. When a Level 1 trauma center in the southeastern U.S. implemented an emergency release blood activation process for emergency patients, the objective seemed unimpeachably sound: have a cooler of uncrossmatched, universally-compatible O-negative RBCs waiting in the trauma bay when new patients arrived needing emergency uncrossmatched blood – an event that happened an average of four times a month.

To make it happen, the center relied on the completion of a two-part Emergency Release Form attached to a broader “Trauma Packet” for each new patient. Triggering the process were these steps:

- An Emergency Center (EC) staff member placed a telephone call to the blood bank, reading aloud four pieces of important information: the pre-assigned coded patient trauma name, the trauma MRN, the ordering physician, and the patient’s blood armband number.
- Using this information, the blood bank would prepare the units with their accompanying paperwork and pack them in the cooler – so the supplies would be ready when the runner arrived at the window.
- A second EC staff member assigned as a runner physically delivered the top copy of the release form to the blood bank, authorizing the runner to collect the waiting cooler containing four units of uncrossmatched O-negative RBCs.

Unintended consequences

What appeared to be a simple process ran into difficulties, with miscommunication and human error often contributing. Among common failings:

- Runners arrived at the blood bank before the phone call had been completed, forcing the courier to wait.
- Originating callers neglected to specify they needed “uncrossmatched” blood.
- EC staff members called for “blood” without having the requisite patient detail or knowing where to find the Emergency Release Forms.

As a result, the goal of having an emergency supply of universally-compatible uncrossmatched O-negative RBCs available before a patient arrived often was unmet. Over a measurement period of 20 months, the percentage of successful activations fell below 80 percent – and seven months of that period were below 50 percent. In some cases, what should have been a shorter process extended to as long as 40 minutes – far too long when a patient is experiencing massive bleeding.

Enter BloodTrack® software

The Trauma Center selected the BloodTrack Emergency Blood Management system, citing that it would be easier for the nursing staff to use, would improve staff accountability, would provide automated unit disposition documentation and would support better use of nursing and blood bank resources at the critical point of activation.

- The blood bank is able to manage individual RBC and plasma units as well as a massive transfusion protocol pack (MTP) containing five units of universally-compatible RBCs and five units of plasma pre-packed in a cooler that is stored and travel-ready.
- Authorized users access the MTP cooler based on a scan of barcoded employee ID badges and patient barcodes. Age and gender software rules accompany pink and blue color-coded tags to help the caregiver select the correct units and/or pre-packed MTP cooler.
- Automated alerts and remote inventory reviews provide real-time automated communication between the EC and the blood bank.



The result

At first, the BloodTrack Emergency Blood Management system was used on an “as needed” basis to support emergency blood demands. Now, the BloodTrack system is the source for both the originating cooler set for MTPs and urgent blood needs of any trauma patient.

From the time the patient comes through the door to the EC to the time she/he is treated in the OR can be as fast as seven minutes. “The BloodTrack Emergency Blood Management system provides an entire cooler of blood – five units of RBCs and five units of plasma – that can be dispensed in less than two minutes and can roll alongside the patient to support ongoing blood needs as the patient travels to surgery,” commented a trauma center physician. [Time referenced is the experience of one user-results may vary for other users.] “Having this contingency supply of emergency, uncrossmatched blood has helped to reduce ‘stat’ calls to the blood bank and related lapses in treatment.”

The trauma center reports being extremely pleased with immediate access to emergency blood products and the associated improvements in patient care efficiency it has helped to make possible. The combination of ready access to emergency blood upon patient arrival, along with availability of a contingent supply to support transfusion needs in surgery, is a contributing factor in this improvement. In particular, this new approach helps ensure sufficient blood products are available at a critical moment. Additionally, the automated activations result in an immediate alert to the blood bank, enabling proactive response to maintain inventory levels.



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Trauma Center Nurse

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 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.

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