

# BloodTrack®

Remote blood inventory and  
bedside transfusion  
management system

SOFTWARE SOLUTIONS



# Optimal blood management



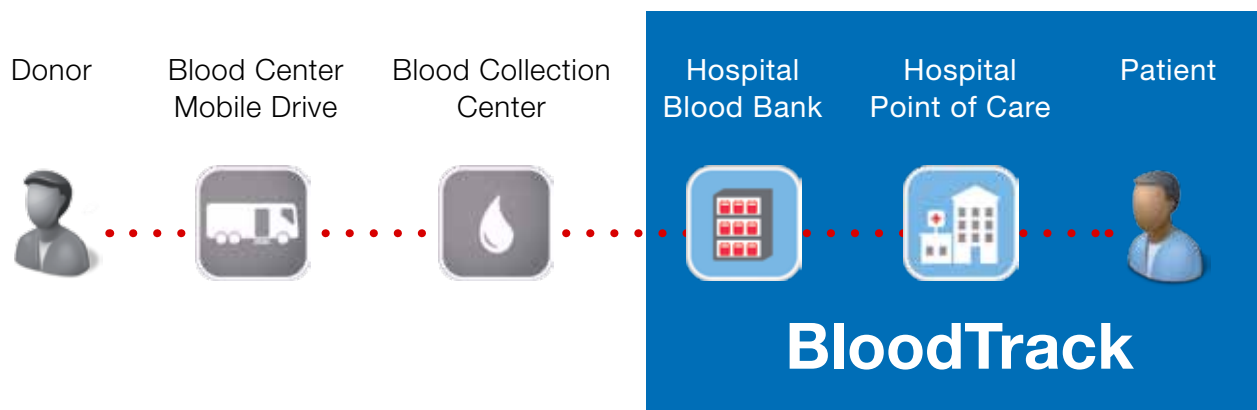
Haemonetics is focused on helping optimize blood management by

1. Preventing a blood transfusion to the patient who doesn't need one
2. Providing the right blood product, at the right time, in the right dose, to the right patient who does

To achieve these goals, Haemonetics has developed an integrated but modular suite of solutions to ensure that each link in the blood supply chain is optimized to reduce costs, eliminate waste and provide better patient care.

# Take control with the BloodTrack suite

The BloodTrack® suite of solutions is an extension of your hospital's blood bank information system. BloodTrack secures, verifies and monitors your blood supply chain electronically from the hospital blood bank, to remote storage locations, to the nurse's station, and finally to the patient's bedside. As a result, customers who have implemented BloodTrack have seen an increase in patient safety, a decrease in blood inventory, and a significant reduction in staff workload.



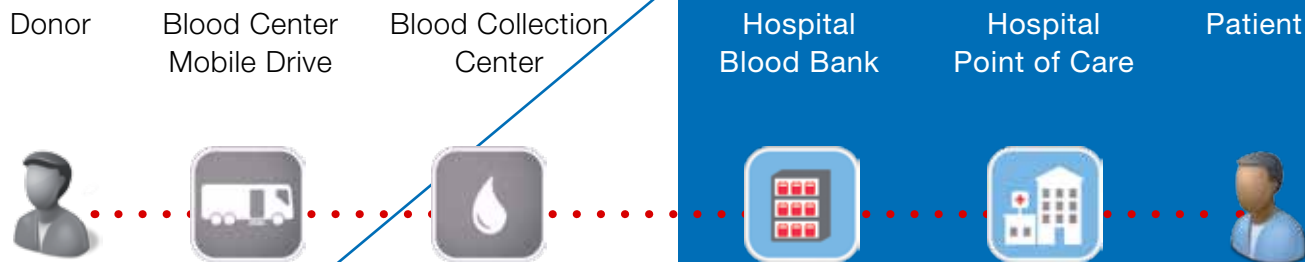
## Key Features

- ✓ Tracks, monitors, and secures remote blood inventory
- ✓ Enables blood to be issued on demand at the point-of-care
- ✓ Verifies patient transfusions using barcoded wristbands and mobile computers
- ✓ Provides clinical staff visibility to inventory and transfusion status
- ✓ Provides electronic traceability records of blood products once they leave the hospital blood bank

## Benefits

- Reduces waste and increases patient safety
- Reduces staff workload, delivery time, blood waste and inventory
- Increases patient safety and nursing efficiency while ensuring compliance with traceability regulations
- Increases clinical and hospital blood bank staff efficiency
- Ensures compliance with regulations and guidelines

# Optimal blood supply chain



Hospital Blood Bank

Remote Storage Locations

Central Dashboard



### BloodTrack Manager

Displays remote blood inventory, transfusion status and alerts in real-time allowing complete traceability of blood products once they leave the hospital blood bank.

Secure Blood Inventory



### BloodTrack Emerge

Monitors, secures, and records O- and O+ blood access in the emergency department.



### BloodTrack Courier

Secures, tracks and verifies the movement of any blood products in and out of remote refrigerators.



### BloodTrack HemoNine

Issues blood products in less than 60 seconds from 9 refrigerated locking drawers 'just in time' at the point-of-care.



### BloodTrack HemoSafe

Issues blood products automatically in less than 60 seconds from 150 refrigerated compartments 'just in time' at the point-of-care.

'Just in Time' Blood Inventory



BloodTrack revolutionizes the way that hospitals provide blood to their patients. It is safer, less time consuming and we know that staff prefer it."

*Dr. Michael Murphy, Professor of Blood Transfusion Medicine, Oxford Radcliffe Hospitals Trust, United Kingdom*

## New!

The latest release of BloodTrack is now able to track, remotely allocate, and dispense plasma-derived batch products such as Albumin, Factors, IVIG, OctaPlas, Pentaspan, and Anti-D.

### Clinician's Station

### Admission

### Patient's Bedside

#### Clinical Transfusion Workflow



##### **BloodTrack Enquiry**

Enables clinicians to query the location of blood units, check crossmatch sample validity, and the status of transfusions from any workstation.

##### **BloodTrack AutoFate**

Allows the arrival and final fate of a blood unit (end transfusion confirmation) to be recorded at any workstation and electronically sent to the hospital blood bank.

#### Patient Identification



##### **AutoPPI®**

Prints barcoded wristbands (linear and 2D) for positive patient identification, enabling BloodTrack Tx deployments without the need for wireless networks.

#### Transfusion Verification



##### **BloodTrack Tx**

Verifies the right blood is given to the right patient using barcode point-of-care and barcoded positive patient identification technology.

# Secure blood inventory

In a typical hospital, hospital blood bank staff spend considerable time and effort testing, monitoring and preparing the blood within the four walls of the hospital blood bank. Although the hospital blood bank is ultimately responsible for the entire blood transfusion process, once blood is issued, staff typically lack real-time actionable information in order to prevent problems. Errors associated with the improper handling, storage and access of blood can result in unnecessary rework, serious adverse events, delays in treatment, and significant cost implications related to patient outcomes.



## BloodTrack Emerge

For hospitals that need to store blood products in the emergency department in order to provide immediate access, but want to maintain security and traceability of their blood inventory, BloodTrack Emerge allows the blood bank to secure, track and monitor their O Neg and O Pos blood units while giving authorized clinicians access at the point-of-care.



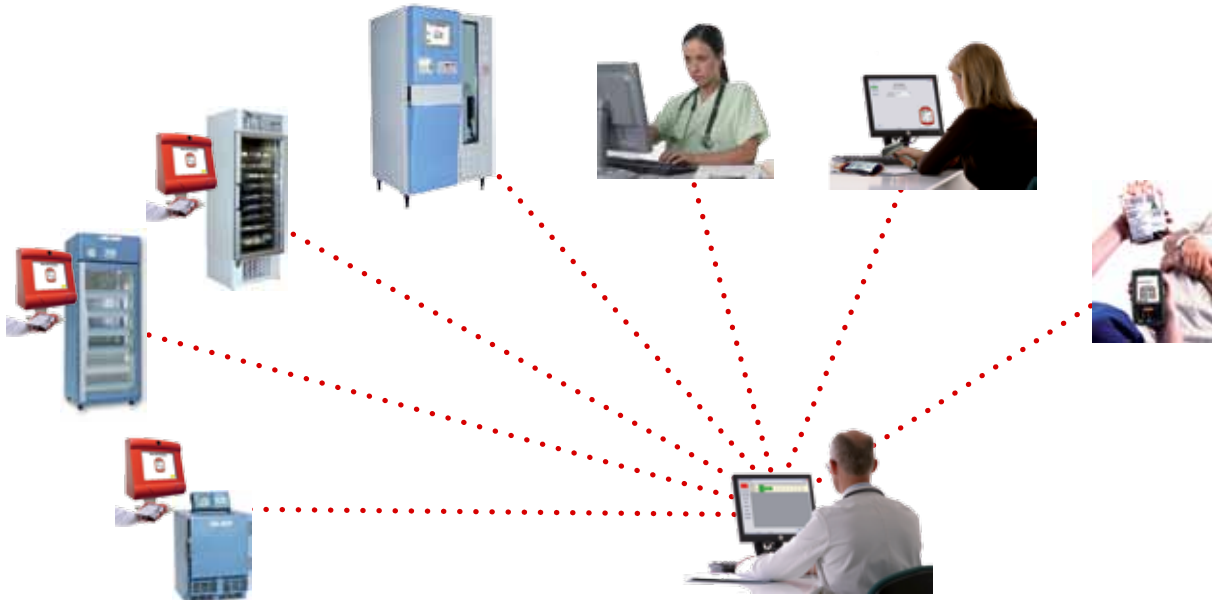
## BloodTrack Courier

For hospitals and donor centers that currently (or plan to) store blood outside of the hospital blood bank, BloodTrack Courier is the ideal solution for securing, tracking, and monitoring remotely stored blood products allowing hospital blood bank staff to maintain control and ensure compliance from the hospital blood bank.

“ With the launch of BloodTrack, we are fundamentally changing the way we are servicing our hospital partners. This is an important evolutionary – or revolutionary - step, the first fundamental change in a transfusion process that was first established 65 years ago.”

*James P. AuBuchon, CEO, Puget Sound Blood Center, United States*

# Centralized blood management dashboard



## BloodTrack Manager

Each BloodTrack module connects to BloodTrack Manager to deliver real-time actionable information about the blood supply chain and transfusion process. BloodTrack Manager provides hospital blood bank staff a dashboard with remote blood inventory details, over 120 different alerts, centralized configuration, and intuitive reporting.

## Compliance

On February 8th 2005, the European Union Directive 2002/98/EC came into force. The Directive on blood safety affects all blood establishments in the EU, refers to hospital blood banks as the centre of activity and responsibility, and places a legal responsibility on hospital leadership.

BloodTrack helps ensure compliance with the EU Directive concerning vein-to-vein traceability, documentation, reporting and storage -

- Article 10 – Personnel
- Article 11 – Quality control
- Article 12 – Documentation and training
- Article 14 – Vein-to-vein traceability (30 years)
- Article 15 – Reporting
- Article 22 – Storage

BloodTrack also helps ensure compliance with national regulations and hospital standards concerning blood traceability, access, re-issue and record keeping.

# 'Just in time' blood inventory

Significant resources are used in preparing, transporting and storing blood products that are never transfused. This 'just in case' blood is then transported back to the blood bank, inspected, (if still viable) put back into stock, and typically re-issued to another patient. All of this unnecessary work, not to mention risk to the blood supply, can be eliminated by providing blood 'just in time' directly at the point-of-care and only when the patient requires a transfusion.



## BloodTrack HemoSafe

For hospitals and centralized transfusion services that want the most efficient and secure blood inventory management system, the BloodTrack HemoSafe is a 150 compartment automated refrigerator using the BloodTrack OnDemand software for dispensing unallocated, crossmatched, autologous, or emergency blood products. The BloodTrack HemoSafe is effectively a virtual automated hospital blood bank that makes blood available 24/7/365 and in under 60 seconds.



## BloodTrack HemoNine

For hospitals that want all the benefits of BloodTrack OnDemand, but with a smaller footprint than the HemoSafe, the BloodTrack HemoNine provides the same 'just in time' blood inventory, but with 9 locking drawers - one for each ABO blood group, plus a drawer for crossmatched units.

## How BloodTrack OnDemand works

1. Unallocated ABO blood is stored in special automated dispensing refrigerators at the point-of-care
2. When a patient needs blood, clinical staff identify the patient at the refrigerator
3. The patient's electronic crossmatch eligibility and ABO/Rh is determined
4. An appropriate blood unit is automatically selected by the system based on:
  - Type of product required
  - Blood group
  - CMV Negative, Irradiated, Leukoreduced
  - Blood unit expiration date
  - Or manual selection by hospital blood bank
5. The electronic crossmatch is performed by the blood bank information system
6. Blood unit is dispensed and compatibility label is printed
7. The blood unit is labeled by the clinician and verified by the system
8. The blood unit is ready to be transfused - all in less than 60 seconds.



# BloodTrack OnDemand benefits

Customers using BloodTrack OnDemand software with the HemoSafe or HemoNine for 'just in time' blood inventory distribution have demonstrated significant reductions in staff workload, blood inventory and delivery time while simultaneously increasing patient safety and compliance.



## Reduced Blood Bank Workload

Experienced hospital blood bank staff are in short supply. By reducing the unnecessary labor associated with crossmatching, transporting, and returning of unused blood, the blood bank and clinical staff workload is reduced by approximately 70%<sup>1</sup>.



## Reduced Delivery Time

Hospital blood banks are often called upon to supply blood to remote locations with the risk that it may not arrive in time because it may take up to 30 minutes to have blood available. By deploying the BloodTrack OnDemand, unallocated blood can be stored then crossmatched and dispensed on demand in less than 60 seconds.



## Reduced Blood Waste

The use of 'just in time' blood reduces the number of times blood is crossmatched and transported back and forth to theatres, thereby reducing the risk to each unit. BloodTrack can also be configured to dispense the oldest unit from the refrigerator first, this helps ensure that blood is used before it reaches its expiration date. In addition, sophisticated real-time inventory monitoring also ensures that older blood can be identified easily and moved around a hospital before it expires.



## Reduced Blood Inventory

Instead of crossmatching a number of blood units for each pending surgery - effectively removing them from the pool of available units - a smaller stock of unallocated blood can be made available to a large number of patients of the same blood type.



During the daytime the BloodTrack HemoSafe helps our technologists work more efficiently without interruption. At night the BloodTrack HemoSafe system has made it possible for us to reduce staff and save money, without compromising service or security in blood supply."

**Henrik Jensen, Head of Laboratory Information Technology,  
Herning & Holstebro Hospitals, Denmark**

# Clinical transfusion workflow

Many clinicians lack visibility into the blood supply and transfusion process, as a result patient care may be delayed if blood availability is not known and critical work in the hospital blood bank is interrupted to respond to calls from caregivers.



## BloodTrack Enquiry

For clinicians who want to know a patient's 'type and screen' sample status, blood product availability, transfusion status as well as the ability to print barcoded blood pick-up slips, BloodTrack Enquiry is an intuitive transfusion workflow management tool.



## BloodTrack AutoFate

Instead of recording the status of a blood unit as 'presumed transfused' in the hospital's blood bank information system if it has not been returned within 24 hours, BloodTrack AutoFate can be deployed at any computer workstation to record the final disposition of every blood unit and ensure compliance with regulations on traceability.

“Preparing a few units for every patient having major surgery is a tremendous waste of technologist's time - more than half never get transfused. BloodTrack OnDemand allows you to be prepared to transfuse any patient with in minutes without doing any crossmatching in advance.”

*Dr. Jeannie Callum, Director of Transfusion Medicine,  
Sunnybrook Health Sciences Center, Canada*

# Patient identification and transfusion verification

Clinicians are responsible for ensuring the right patient receives the right blood but must rely on visual checks based on complicated SOPs with manual documentation. The Haemonetics BloodTrack Tx module electronically verifies each step of the transfusion process using the latest wireless and barcode technology.



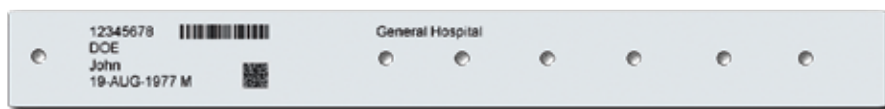
## BloodTrack Tx

For enhanced patient safety, efficient clinician workflow (e.g. single nurse checking), and centralized electronic transfusion documentation, BloodTrack Tx provides verification at each step of the transfusion process with or without a wireless network.



## AutoPPI

Transfusion verification using BloodTrack Tx begins by positively identifying patients with 2D barcoded wristbands. These wristbands can be printed using our AutoPPI system integrated with your hospital's patient admissions system.



In addition to bedside transfusion verification, integrated solutions for laboratory specimen labelling (PathCollect®) are available from Haemonetics on the same point-of-care mobile device.

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**Denmark**

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**France**

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**Germany**

0800.180.8890

**Italy**

800.870.200

**The Netherlands**

0800.0222.707

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