

Blood bank systems sport an assortment of solutions

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Kristen Eberhard

October 2014—From a focus on donor screening to inroads with inventory and tweaks to transfusion functionality, marketers of blood bank information systems and ancillary solutions continue to make their products faster, safer, smarter, greener. Here's what CAP TODAY heard about what's new and soon to come.

Blood Bank Computer Systems has been developing its ABO Suite software solution, an integrated platform to address the risk-, donor-, and data-management needs of blood banks. The first products in the ABO Suite—ABO QuickPass, ABO Wheels, and ABO Express—are awaiting FDA 510(k) approval and are expected to be available next year.

ABO QuickPass, for donor screening and self-registration, allows donors to self-administer a donor history questionnaire by accessing a website from their smartphone or other personal device before arriving at the donor center. Once donors arrive at the donor center, they can use a tablet or workstation kiosk to self-register and electronically import the questionnaire they answered remotely. QuickPass has automated checks and reminders to ensure no critical registration elements are missed. Electronic data capture reduces staff time. The product can be implemented as part of the ABO Suite or deployed as an add-on module for customers using the BBCS Primary Application, says Brian Forbis, vice president of BBCS.

ABO Wheels is a blood-collection application for paperless collections at mobile blood drives, remote events, or donation centers. "ABO Wheels can work in online mode, allowing data to be sent back to ABO Express in real time," Forbis says. "Additionally, information generated in ABO Wheels at a blood drive or remote event can be uploaded to a USB device or other removable media and then transferred into ABO Express." Multiple mobile blood drives or remote events can be conducted simultaneously using the ABO Wheels software, he says.

ABO Express is the core application in the ABO Suite, "providing the foundation of a robust, fully integrated blood bank management software infrastructure," says Forbis, who calls it a streamlined solution for blood banks, hospitals, and plasma centers. A key strength of Express, he adds, is its rules-based design, which helps minimize risk by ensuring data and process consistency via automatic exception management. "The included rules engine can be fine-tuned to maximize operational efficiencies while adapting to the specific needs of each implementation," Forbis says. Express provides electronic management of component manufacturing, inventory control, donor testing, shipping and receiving, reference laboratories, transfusion services, and quality assurance.

Haemonetics has received FDA 510(k) clearance and CE marking for its BloodTrack remote inventory and bedside transfusion management solutions version 4.7, part of its BloodTrack suite of modular solutions for remotely monitoring and controlling the blood supply chain from the blood bank to the transfusionist at the patient bedside. The system is being used to manage the blood supply for Ireland's health care system. "It secures, monitors, and controls access to blood products in each of the 48 publicly funded hospitals through a single database, providing countrywide transfusion statistics, real-time inventory, and end-to-end traceability," says Michelle Leo, senior marketing manager for Haemonetics.

BloodTrack version 4.7 also includes a closed-loop inventory-management system, which is being used to automate the ordering and delivery of blood products in a pilot project with the National Health Service Blood and Transplant in England. The health service is using BloodTrack to forecast inventory levels and predict supply and delivery needs. An automatic supply order is generated when blood product inventory levels fall below thresholds, and electronic packing slips are used to confirm that hospitals receive the products.

On the bedside transfusion verification side, the BloodTrack Tx system now includes support for mobile workstations and Citrix platforms, as well as single sign-on for Epic electronic health record software.

Within the next year, Leo says, Haemonetics expects to enhance the connection between BloodTrack Tx and its SafeTrace Tx transfusion system. This will create a complete loop from sample collection to electronic verification and documentation of the transfusion at the patient's bedside. The process will also update the patient's record in SafeTrace Tx. The company will add iOS to its supported BloodTrack Tx platforms.

Haemonetics plans, too, to expand its BloodTrack suite next year by adding BloodTrack HaemoBank, a remote blood inventory and point-of-care blood allocation solution.

Quality control has been a main focus at McKesson, says product manager Julie Thomas. The enhancements to its QC package are the most important part of its latest version of McKesson Blood Bank, released in May, she explains. The QC features make it possible to set an end date for reagent rack use, prevent the use of expired reagents, warn end users when QC has not been performed or when a reagent is approaching its expiration date, and provide QC activity updates. McKesson private labels McKesson Blood Bank from Haemonetics.

New from SCC Soft Computer is the transfusion status monitor in its SoftID.Tx positive patient identification system, which is used in transferring transfusion-related data from the bedside to the company's SoftBank blood bank system. The monitor displays units for which transfusion has been started and stopped as well as patients who have vitals due. This at-a-glance tool allows caregivers to get a quick status update on a patient.

SCC has also worked with Haemonetics to build a dedicated interface to the latter's remote blood storage units. "We expect that demand for this [interface] will increase in the coming years," says Ellie Vahman, vice president of sales and marketing for SCC. The interface allows units of blood stored in the device at a remote location to be electronically crossmatched. "The user at the refrigerator will be able to get electronically crossmatched products as needed," Vahman says.

SCC has added control points, or safety checks, for cytomegalovirus, irradiated, human-leukocyte-antigen-matched, and leukoreduced products to its SoftBank system. SoftBank also includes "tech versus supervisor" overrides, which are controlled by security and setup. The FDA granted 510(k) clearance to SoftBank version 25.5 in August.

Next year SoftBank will be enhanced to check a patient's admission profile for valid (in-date) type and screen results, regardless of the HIS/EMR system used by the facility. When valid results are found, the system will allow electronic crossmatching of a qualified patient, reducing the need for additional patient specimens. SCC is also building functionality into SoftBank to accommodate the inventory management and labeling of Octapharma's Octaplas plasma product and cellular therapy products. And SoftBank will generate a barcoded label for each derivative product, such as factor VIII and factor IX, within a lot number that is entered into the system.

An inventory status monitor will be added to SoftBank for a quick view of blood products' selected, issued, or transfused status. Users will be able to add a hierarchy to exceptions using a color-coded display, enabling the technologist to easily see which exception is most important and should be addressed first. Transfusion protocol functionality will be included, as well as emergency transfusion and post-transfusion reconciliation.

"The blood services team is also working on an appropriate inventory-management interface, which is business intelligence software for a hospital's blood utilization and patient outcome analysis," Vahman says.

Mediware, this year, began offering in its HCLL transfusion system expanded antigen information, import of transfusion event data from EMR/CPOE and bedside systems, enhanced multifacility centralized testing services, inventory management, and integrated storage retrieval of electronic documents such as antibody identification antigrams. The system also provides a Web-based access module, which offers faster single-screen crossmatching and issuance of cellular and noncellular products, says Tina Keefer, product manager. Other timesaving features include automatic standard patient instructions based on a patient's gender, age, and other information.

For 2015, Keefer says, HCLL will support the International Society of Blood Transfusion 128, or ISBT 128, along with restructured product description codes that will be standard in 2016.

These five companies and five others supplied the information listed on pages 27-32. Readers interested in a system should confirm it has the stated features and capabilities.

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