Technology

- VBECS is installed and functioned at over 130 blood bank sites with the initial phased rollout deployment since April 2011.
- Users access the VBECS application with their existing VA login credentials over remote desktop sessions.
- VBECS is a Microsoft Windows application developed in C#. It utilizes Microsoft's .NET technology. VBECS uses SQL Server 2012 as its database.
- VBECS is installed on a server running Windows Server 2008 virtualized environment on a physical server. The database is separated from the application and additional redundancy is introduced with SQL AlwaysOn.
- VBECS communicates with VistA applications via a C# Listener, using a VBECS specific version of VistALink, HL7 Messaging for ADT Events, orders from CPRS and information from VistA controlled files for VBECS reference table updates (such as CPT/HCPCs, Hospital Locations).
- VBECS uses a Zebra printer to enable the printing of caution tag labels.
- Microsoft SQL Server Reporting Services (SSRS) is used to create, export, and print VBECS reports.
- The VistA legacy Lab application has active reporting components that are utilized for national reporting requirements, i.e., workload.

Quality: It's in our blood!

The VBECS Blood Bank Maintenance team, Specialty Care Services/Pathology and Laboratory Medicine Services Program Office, and the Office of Information collaborated to develop safe and effective transfusion service software in accordance with all governing federal regulations and organizational policies.

VBECS 1.0 obtained FDA 510(k) clearance October 2006 (BK060043)
VBECS 2.0 obtained FDA 510(k) clearance November 2014 (BK140172)
VBECS 2.3.0 obtained FDA 510(k) clearance October 2018 (BK180227)

For up-to-date information about VBECS:

The Blood Bank Application SharePoint is the central location for VBECS information and associated VA websites.

Blood Bank Application Support SharePoint

(http://vaww.oed.portal.va.gov/projects/vbecs/default.aspx)

Sign up on the VBECS ListServ group to receive communications. A link is provided on the SharePoint.

VistA BLOOD ESTABLISHMENT COMPUTER SOFTWARE

VBECS

Product Information

Department of Veterans Affairs
Office of Information, Product Development

Revised: December 2018
Version 7.0

Benefits

Medical Center Management experiences the following benefits with the VBECS software:

- Improve the quality of patient care through evaluation of transfusion appropriateness and effectiveness.
- Compliance with CDC recognized classifications for patient adverse events.
- Improve the safety of blood component transfusion by decreasing the risk of errors through effective use of improved technology.
- Provide comprehensive reporting capabilities for quality monitoring within the transfusion services and for clinical staff.
- Improve safety by providing blood product delivery to patients.
- Help in minimizing costs and improving efficiencies by reducing labor-intensive work and enhancing control over the blood transfusion process.
- Standardized software and hardware.
- A centrally located VA data center hosts the system with redundancy to preserve continuity of operations. SQL Server AlwaysOn Primary, high availability and disaster recovery model are also implemented.
- Enhancement of the facility's ability to deliver transfusion services that meet the needs of the user community and conform to federal regulations, and industry and accreditation standards.

VBECS does not support:

- Blood Donor Collection Activities
- Full-Face Blood Product Labels

Key Features

- Barcode scanning capability for patient safety and technologist efficiency throughout
- Electronic crossmatch capability defined by patient and unit specific testing requirements (Full Service)
- Multi-divisional capabilities to support multiple facilities from one server
- Two types of Transfusion Service types: Full Service and Transfusion Only
- Six user roles at each facility, locally managed
- National CPRS Order Dialog for Blood Bank test and component orders that may be locally configured and used with Quick Orders
- Locally configurable mapping of orders from supported clinics
- Direct data entry of observed test results and user interpretations to reduce transcription errors (Full Service)
- Automated instrument interfaced delivery of test results to further reduce transcription errors (Full Service)
- Built-in computer safety checks to alert users to testing conflicts, potential mistakes for testing and unit selection, and deviations (overrides) from standard entries which require explanation to proceed as allowed by role
- ISBT barcode labeling supported
- Online record keeping of reagents and their QC, supplies and equipment maintenance
- Reports that record review of daily activities, including all testing performed, overrides processed and data changed for supervisory review and follow-up
- Efficient and streamlined emergency release process
- Prints user-generated Caution Tags and Blood Transfusion Record Forms
- Supports all Legacy reporting to national databases, i.e., workload, DSS
- Report data export to local share drive for additional electronic record keeping, downtime backup patient information, and local custom reporting