VistA Blood Establishment Computer Software (VBECS) Version 2.3.1

Release Notes Version 2.0

Department of Veterans Affairs
Enterprise Project Management Office

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Revision History

Date	Revision	Description	Author
2/21/19	1.0	Initial version (Task 871399)	BBM Team
5/2/19	2.0	(Task 975267) References section: • Changed ISBT Technical Specification to “v 5.10.0”. • Changed Blood Product Revisions ICCBBA to “Version 7.19.0 November 1, 2018”. Table 1: Updates by Option: • ID#8, Changed verbiage from “No Records Found” to “No information is available, per entered search criteria.” • ID#11, Updated validation scenario to remove the test for “Repeat Patient ABO/Rh.” Clarified validation steps for the automated testing correction for Blood Bank Report since CPRS does not see the comments for that test. • ID#18, Clarified validation scenario. • ID#19, Clarified validation scenario.	BBM Team

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Introduction

VistA Blood Establishment Computer Software (VBECS) Version 2.3.1 Release Notes contains information for changes and corrections made to VBECS in the 2.3.1 patch.

Perform a local evaluation and risk assessment of the changes to determine the requirements for local validation of the changes, including documentation of the assessment activities. See Validation Planning.

Changed Features and Functions

This project is a patch release centrally focused around resolving high Fortify findings in the VBECS code, providing solutions to customer reported issues and enhancements, and releasing updates for system maintenance.

Primary Goals of the Project

1. VA Standards Updates
   1.1. Resolve high security findings from the Fortify static analysis tool scan.
2. Customer Reported Issues and Enhancements
   2.1. Provide a positive antibody screen warning.
   2.2. Provide updates to the Blood Availability Report.
   2.3. Provide updates to the CPRS Blood Bank Report.
3. System Maintenance
   3.1. Update the manufacturer's address on the Help About screen.
   3.2. Enhance the VBECS Admin Console screen labels.
   3.3. Correct the uniqueness of the database Specimen UID field.
   3.4. Provide updated donation type codes.
   3.5. Provide corrections to underlying report generation code.
   3.6. Deprecate unsupported database data types.
   3.7. Improve patient event handling.
   3.8. Remove patient location from the patient select tool.

Table 1: Updates by Option provides complete lists of the included changes.

Service Desk ticket numbers are no longer included in the release notes, as the defect tracking number processes all changes. The defect tracking number is identified in the ticket prior to closure.

Untestable System-Level Corrected Code Requests

- Database Structure 779611
    - New data types are used on latest versions of SQL Server.
- Patient Event Handling 860542
    - Patient events are managed more efficiently in the code.
- Fortify Secure Code Corrections 724896
    - Resolved all high and medium findings in the code.

VistA Software Dependencies

- VBEC*2*3- BCE is no longer interfaced to VBECS. VBEC*2*3 eliminates the ADT 04 and 08 event feeds triggered by BCE to VBECS.

VBECS User Documents

To update VBECS documents, retrieve the update packages for these guides from the VA Software Document Library (VDL):

See each guide's revision history for change details:

- *VistA Blood Establishment Computer Software (VBECS) 2.3.1 Release Notes (this document)*
- *VistA Blood Establishment Computer Software (VBECS) 2.3.1 Technical Manual-Security Guide*
- *VistA Blood Establishment Computer Software* (*VBECS) 2.3.1 User Guide*
- *VistA Blood Establishment Computer Software* (*VBECS) 2.3.1 Administrator User Guide*
- *VBECS 2.3.1 Known Defects and Anomalies*

Customer Support

Problems?

Contact your Local Office of Information Technology (OIT) or Laboratory Information Manager (LIM) if you encounter VistA or CPRS connection problems and for training support **before** contacting the Service Desk (SD).

- Please ensure local contact information is available at all times. Service Desk support will engage Enterprise Operations (EO) personnel as needed.
- Problems with connectivity to VistA and CPRS may require personnel from EO with VBECS server administrator access and VistA IT support access.
- If you experience an FDA reportable adverse event (patient death or serious injury) that VBECS may have caused or contributed to, contact the Service Desk directly to enter a ticket for Blood Bank software support.

If the problem remains unresolved after local VistA triage, call the Service Desk (below) and specify the Enterprise Application be set as VistA Blood Establishment Computer Software. This will cause the Assignment group to default to NTL Alert Blood Bank & VBECS, which alerts the Clin2 team.

Service Desk Contact

For Information Technology (IT) support, call the Service Desk (855-NSD-HELP (855-673-4357) toll free, 24 hours per day, 7 days per week.

References

- *ISBT128 Standard Technical Specification v 5.10.0*
- *Blood Product Revisions ICCBBA Version 7.19.0 November 1, 2018*

Installation Qualification (IQ) Documentation

The expedited patch installation process will continue with the installation of VBECS 2.3.1.

Test Account Upgrade to VBEC*2*3 and VBECS 2.3.1	
Required Patch Installation	VistA Patch: VBEC*2*3, Server Patch: VBECS 2.3.1
Installation Process for VBEC*2*3	Installed by IT Support Staff according to patch description and local policy
Installation Process for VBECS 2.3.1	Installed by Austin Data Center Staff; a small number of sites will be installed each day over several days
Expected Downtime	Minimal
Installation Communication for VBECS 2.3.1	• ListServ message sent at the start of the Test installation window • Emails sent to site POCs informing them of the day/time of test installation • Emails sent to site POC's informing them of the completion of the test installation • ListServ message sent at the end of the Test installation window

Site Responsibility	• Join VBECS-L message board on ListServ, if needed • Ensure that changes to site POC are communicated to the BBM team through emails to the email group "VA OIT BBM Team". • Check connectivity within a week of the test patch install
Site Record of Patch Installation	Sites should take and save a screenshot of the VBECS Help, About window after the Test installation is performed. This displays the VBECS updated version information.

Production Account Upgrade to VBEC*2*3 and VBECS 2.3.1	
Required Patch Installation	VistA Patch: VBEC*2*3 Server Patch: VBECS 2.3.1
Installation Process for VBEC*2*3	Installed by IT Support Staff according to patch description and local policy
Installation Process for VBECS 2.3.1	Installed by Austin Data Center Staff for individual sites, according to scheduled date/time. The BBM team will contact sites for installation date/time when the Production Installation window begins.
Expected Downtime	Minimal
Installation Communication for VBECS 2.3.1	• ListServ message sent at the start of the Production installation window. • BBM team coordination with site POCs to arrange date/time of Production installation • Calendar appointments sent to site POCs for scheduled Production installation
Date of Installation Process	• Installation managed through Skype call- Whiteboard and Chat Window. • Sites can continue to use VBECS until notified that the upgrade for their site is ready to begin. • After installation, sites work with Health Product Support staff to test connectivity and perform a simple order and result.
Site Responsibility	• Perform local validation, training, and set-up requirements prior to Production installation. • Join VBECS-L message board on ListServ, if needed • Ensure that changes to site POC are communicated to the BBM team thorough emails to the email group "VA OIT BBM Team". • Check HL7 connectivity BEFORE the scheduled Production installation date
Site Record of Patch Installation	• Sites should take and save a screenshot of the VBECS Help, About window after Production installation is performed. This displays the VBECS updated version information. • NOTE: An unsuccessful installation of a patch leaves VBECS in downtime until the problems are resolved and the installation is successfully completed.

Validation Planning

The following is a flowchart to help assess changes for validation planning.

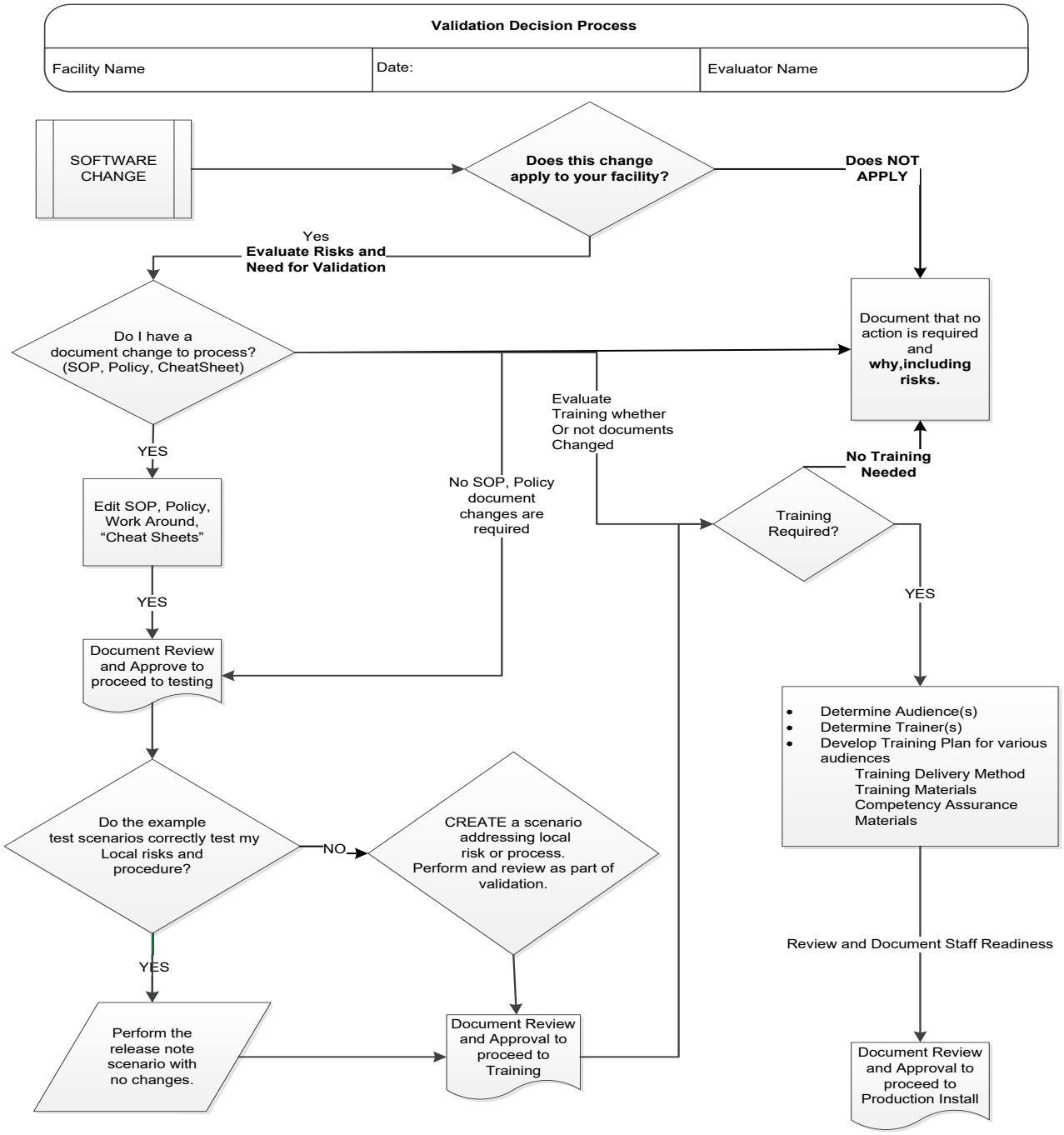

Table 1: Updates by Option

When performing validation of updates in Test Accounts, coordinate with local IT for policies pertaining to the availability of background jobs needed to support validations. In some cases, background jobs may need to be started.

ID	Option	Problem Summary	Change Summary	Validation Scenario	Change applies to my facility. (Y/N)	Local risk Assessment (Low, Med, High)	SOP revision required. If yes, identify it.	Staff training needed. (Y/N)	Scenarios or validation must be performed. (Y/N)
1	Record Patient Antibody Screen 416135	Request to add a new warning message.	A new user warning message is presented informing the user about a positive Antibody Screen test.	Perform manual TAS, ABS and Repeat ABS. Verify that if the user enters P as an interpretation for ABS; the system generates an audible alert and this warning “Patient has a POSITIVE Antibody Screen Result. Please perform Antibody Identification on this patient prior to issue of blood components.” Only for sites that use automated blood bank analyzers test similar scenarios for automated testing when accepting test results from an instrument that have Positive ABS result.					
2	Blood Availability Report 813600	Request to comply with changing requirements.	The term "Irradiate" on the report has been updated to “Pre-treated to Prevent GVHD”, to be consistent with the rest of system.	Run a Custom report and go to Modification Types. Verify that it shows modification type of Pre-treated to Prevent GVHD / Irradiate. Select it and run the report. Verify that the report includes units that are both Irradiated and Psoralen treated.					

ID	Option	Problem Summary	Change Summary	Validation Scenario	Change applies to my facility. (Y/N)	Local risk Assessment (Low, Med, High)	SOP revision required. If yes, identify it.	Staff training needed. (Y/N)	Scenarios or validation must be performed. (Y/N)
3	Blood Availability Report 873553	When the "Units with No Disposition (Available Expired)" option is selected, units that are not yet expired by the time the report is run, but will expire by the End of Day (23:59) are included in the report.	Units not yet expired should not show in the report.	Validation is not required but the following is an example of testing: Set the following expiration date for two units: one before noon the other after noon on the same day. Run the Blood Availability Report with the “Units with No Disposition (Available Expired)” option selected at noon. Only one unit should show. The unit that expires in the afternoon should no longer be included.					
4	Blood Availability Report 822673	Report does not display the blood units in order of expiration date	The report now sorts units by their expiration date within each ABO/Rh group and unit status, with units expiring soonest on the top.	Run Blood Availability Report and verify that units are sorted in the order of expiration date for each ABO/Rh group and unit status. For example, for all A POS units that are available, verify that they are now sorted by expiration date with units expiring soonest at the top.					
5	Blood Availability Report 208938	Report sorts with Rh Negative units displaying first, then Rh Positive units.	Per focus group approval, the report now sorts units with Rh Positive displaying first, then Rh Negative for all ABO types.	Run Blood Availability Report and verify that Rh positive units are now displaying before Rh negative units for each ABO group. For example, A POS units displaying before A NEG units.					
6	Blood Availability Report 210406	Long “Restricted To” patient name can run into the "Issued” label on the Blood Availability Report	Restricted Unit display can now handle a long patient name.	Validation is not required due to the complex nature of the test scenario and the remote likelihood of occurrence.					

ID	Option	Problem Summary	Change Summary	Validation Scenario	Change applies to my facility. (Y/N)	Local risk Assessment (Low, Med, High)	SOP revision required. If yes, identify it.	Staff training needed. (Y/N)	Scenarios or validation must be performed. (Y/N)
7	Blood Availability Report 210373	Blood Availability Report page number is not printed on last page, and the last line of the Report Criteria is cut off.	The report page number is now printed on the last page of the report, and report criteria is printed in full.	Create a Custom Report with the following options checked. ABO/Rh tab – all checked Division tab – all checked Restriction tab – all checked Component Class tab – all checked Verify that they all show at the end in the Report Criteria section and page numbers are not affected.					
8	Blood Availability Report 210164	If the user selects Units with No Disposition and there are no expired units in the system then “No information is available, per entered search criteria” is displayed. If the user tries to switch to a different report type, the report will not print and the “No information is available, per entered search criteria” message will be shown even if there are records that should be displayed.	If the user selects Units with No Disposition and there are no expired units in the system, any subsequent report selections will now print appropriately, and the “No information is available, per entered search criteria” will not display inappropriately.	Validation is not required but the following is an example of testing: Remove all expired units from the system. Make sure that there are blood units in the system to warrant printing all report types except “Units with no disposition”. Navigate to Blood Availability Report and select Units with No Disposition to print. The system should present a message “No information is available, per entered search criteria”. Without closing the window attempt to print a different report type. Verify that the report prints as expected.					

ID	Option	Problem Summary	Change Summary	Validation Scenario	Change applies to my facility. (Y/N)	Local risk Assessment (Low, Med, High)	SOP revision required. If yes, identify it.	Staff training needed. (Y/N)	Scenarios or validation must be performed. (Y/N)
9	Blood Availability Report 210062	Units in final status would not always be included in the Blood Availability Report for certain date range selections.	Blood Availability Report will now print appropriately for a selection of units in final status on a date range selection of one day.	Validation is not required but the following is an example of testing: Select a unit with a final status other than transfused (e.g. transferred, discarded), record the date the status was changed. Run the Blood Availability Report for that date only (ex. start and end date are 5/25/19). Unit should be shown on the report.					
10	CPRS Blood Bank Report 827871	Expired units that are not yet marked as Presumed Transfused or Transfused do not show on CPRS Blood Bank Report.	CPRS Blood Bank Report now includes units that are expired.	Issue two blood units to a patient. Allow both blood units to expire (make sure that they expire before they are marked as presumed transfused). Verify that both units show on the list of available/issued units on CPRS Blood Bank Report. Transfuse one unit. Verify that it no longer shows on the list of available/issued units on CPRS Blood Bank Report but one unit shows as transfused on the same report. Allow the second unit to be marked as presumed transfused (this may take up to 48 hours). Verify that the second unit no longer shows on the list of available/issued units on CPRS Blood Bank Report but two units show as transfused on the same report.					

ID	Option	Problem Summary	Change Summary	Validation Scenario	Change applies to my facility. (Y/N)	Local risk Assessment (Low, Med, High)	SOP revision required. If yes, identify it.	Staff training needed. (Y/N)	Scenarios or validation must be performed. (Y/N)
11	CPRS Blood Bank Report 381403	For automated results, the test comment that is entered when accepting an ABO/Rh result in VBECS will display twice on the CPRS Blood Bank Report.	The comment entered and accepted that is associated with an ABO/Rh test from the instrument no longer displays twice on the CPRS Blood Bank Report.	Send results for TAS and Patient ABO/Rh from an automated instrument. Enter a comment for ABO/Rh results and accept them. Verify that comment entered is only displayed once on the CPRS Report. For those automated blood bank analyzers sites who do not have a TEST Data Innovations Instrument Manager connected to a TEST VistA: Set up all your data 24 hours in advance and then switch your interface over to perform the testing.					
12	CPRS Blood Bank Report 210244	Legacy Transfusion Reaction comments are being duplicated on the CPRS Blood Bank Report.	Legacy Transfusion Reaction Comments are no longer being duplicated on the CPRS Blood Bank report.	Validation is not required.					
13	CPRS Blood Bank Report 210073	Testing comments for ABS and DAT tests are being duplicated on the CPRS Blood Bank Report.	A testing comment will only display once on the report.	Complete ABS, DAT, DAT IgG and DAT Comp tests in VBECS. Enter testing comment for each test. Run the CPRS Blood Bank Report and verify that testing comments show only once for each test.					
14	Report Generation 636808	"D:\" displays on exported report screens.	Exported Report Screens display only the name of the folder to which report is exported.	Validation is not required.					

ID	Option	Problem Summary	Change Summary	Validation Scenario	Change applies to my facility. (Y/N)	Local risk Assessment (Low, Med, High)	SOP revision required. If yes, identify it.	Staff training needed. (Y/N)	Scenarios or validation must be performed. (Y/N)
15	VBECS Help About, VBECS Admin Help About 878030	Hines OI&T Office address change is not reflected in VBECS Help and VBECS Admin Help About screen.	VBECS Manufacturer Address is updated to reflect the new address of the Hines OI&T Office.	Validation is not required.					
16	VBECS Administrator 831497	Continuous VBECS User Documentation improvement.	More descriptive information is added to Administrator screens and in the VBECS Administrator User Guide.	Validation is not required.					
17	Order Entry 712337	Problem with VistA's reuse of Specimen UIDs after 10 years, causing new orders to be associated with old specimens and rendering the new order in a state where you cannot accept it.	New orders are now associated with current specimens, regardless of year.	Validation is not required.					
18	Order Entry 645405	Request to comply with changing requirements.	VBECS Donation Type Codes are consistent with current ICCBBA standards.	See Table 2: Donation Type Codes Navigate to VBECS, Shipments, Incoming Shipment. Proceed to defining your invoice, then unit entry. When entering the product code, manually enter the product code (e.g. E0142C00). Ensure that the 6th character matches one of the newly introduced donation type codes. Verify that the donation type matches the donation type represented by the 6th character (e.g. Replacement).					

ID	Option	Problem Summary	Change Summary	Validation Scenario	Change applies to my facility. (Y/N)	Local risk Assessment (Low, Med, High)	SOP revision required. If yes, identify it.	Staff training needed. (Y/N)	Scenarios or validation must be performed. (Y/N)
19	Patient Select Tool 878115	Continuous VBECS system performance improvement	Patient location is no longer displayed because it is no longer needed since the BCE interface has been disabled.	Navigate to VBECS, Orders -> Recent Patient Orders. Verify that the Patient Location no longer displays underneath the Compatibility Percentage.					

Table 2: Donation Type Codes Table

DonationTypeId	DonationTypeCode	DonationTypeText
1	0	Not Specified
2	V	Volunteer Allogeneic Donor
3	R	Volunteer Research Donor
4	S	Volunteer Source Donor
5	T	Volunteer Therapeutic Collection
6	P	Paid Allogeneic Collection
7	r	Paid Research Collection
8	s	Paid Source Collection
9	A	Autologous, Eligible for Crossover
10	1	For Autologous Use Only
11	X	For Autologous Use Only, Biohazardous
12	D	Volunteer Directed, Eligible for Crossover
13	d	Paid Directed, Eligible for Crossover
14	2	For Directed Donor Use Only
15	L	For Directed Donor Use Only, Limited Exposure
16	E	For Directed Donor Use Only, Medical Exception
17	Q	See Special Testing Barcode
18	3	For Directed Donor Use Only, Biohazardous
19	4	Designated Donor
20	5	Dedicated Donor
21	6	Designated Donor BioHazardous
22	F	Family Reserved - Added in VBECS 2.3.1
23	C	Replacement - Added in VBECS 2.3.1

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