VistA Blood Establishment Computer Software (VBECS) Version 1.5.2

Release Notes Version 3.0

Department of Veterans Affairs
Product Development

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Revision History

Date	Revision	Description	Author
12/27/10	1.0	Initial version	BBM team
		Footer: Updated version number and date. Revised Appendix A, from "Examples of Test Scenarios" to "Planning and Example Test Scenarios". • The first sentence in the box was updated. Inserted a Validation Planning section. • Option: Select Unit, Issue Unit, Print Unit Caution Tag and BTRF, Test Objective 7: Scenario 2. Added "Note: Attempts to use the same blood order by multiple users will result in a data lock, which is expected functionality unrelated to this correction (CR 2758). Attempt to mimic a real life situation where multiple staff members are busy preparing a variety of products or handling the unit processing for the same patient" (DR 4055). • Option: Patient Testing, Test Objective 6 Scenario 3. Added this text to Step 2 "(IS = 0, 37= X, AHG =X, CC= X, Interp =C.) *You must enter the X for Not Tested. Leaving 37, AHG, CC and Interp blank is considered a partial test."* (DR 4039). Added Step 3 and renumbered the subsequent steps. • Added Blood Product Generic Scenario Example Test Scenarios, Objective 8. Blood Product Table Update section: • Added Product Code series to 2nd paragraph. • Added specific Product code numbers to 3rd paragraph. • Inserted as 7th paragraph: The core condition for Codabar Thawed Cryoprecipitate products was changed. Added last paragraph" See Appendix A: Validation Planning and Example Test Scenarios, Objective 8. • Added reminder to focus on product codes received for local validation testing. • Added text box regarding cryoprecipitate core condition changes between the 4th and 5th paragraphs. Accept Orders section: Added "See Objective 6". Issue Unit Section– Added last paragraph "See Appendix C: Locate a VistA Converted Patient Record." Added Appendix C: Locate a VistA Converted Patient Record. Unit History Report section: Changed the Objective from 5 to 1, Scenario 4. This allows the user to immediately check the report as they create the data in Scenario 3. Updated Example Test Scenarios. Add changed "Test Scenarios by Function" to "EXAMPLE Test Scenarios <u>Test Objective 1</u> • Added the note. • Scenario 1: Added Reports and Display with instructions to view 2 reports and the unit search tool. • Scenario 2, Data: Added "Optionally, use the blood unit from Scenario 1 by selecting different antigen specificities." Added Reports and Display with instructions to view 2 reports and the unit search tool. • Scenario 3, Data 2, Added ", if a rack with a different lot	

Date	Revision	Description	Author
05/31/11	2.0	number than the previous scenarios is used." Steps, 5: Changed the step to read: "Unit History Report, select each unit." • Expected Outcome: 3rd bullet changed: In Step 5, "Each unit has its quarantine status indicated in the pick list view (using the ellipsis to select the unit) and in the mock label display after the unit is selected as well as in the Quarantine Details section." Added a 4th bullet: "An optional verification may be performed by attempting to select the quarantined unit for a suitable patient. This is not allowed by the application." • Added Scenario 4 to replace Test Objective 5. <u>Test Objective 2</u> • Scenario 1: Added the note. • Data: Added "At least one of the specificities must be a new lot number that requires QC with this test." • Edited Step 1; added a new Step 2; after renumbering the steps, edited Step 4. • Expected outcomes: Edited all bullets as patient testing behavior differs from unit antigen typing in that partial data save is allowed. • Scenario 2: Edited Steps 2, 3 and 5; added new Steps 4 and 6. Removed "3" from Expected Outcome. • Edited Expected Outcome 2nd bullet aligning with step changes. <u>Test Objective 4</u> • Scenario 2: Data, expanded "xmatch" to" crossmatch". • Steps: Edited Step 1 so the words emergency issue tab are in the first sentence. <u>Test Objective 5</u> • Removed and consolidated into Objective 1, Scenario 4. • The remaining scenarios were not renumbered. <u>Test objective 6</u> Steps: Inserted a new Step 3.	BBM Team
06/14/11	3.0	Missing from revision history 2.0: <u>Test Objective 2, scenario 1 :</u> Note: Patient tests may be saved when partially completed. These tests do NOT behave the same as Unit Antigen Typing tests. There are no navigation problems in the Patient Testing Grids." (DR 4062) Enhancements and Modifications section: Updated Remedy tickets resolved by VBECS 1.5.2. (DR 4143) <u>Test Objective 6</u> Added "Note: Component orders selected for testing in this option must be associated with a specimen UID. Using a component order that is not associated with a UID does not provide the same system response." (DR 4059)	BBM Team

Table of Contents

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Introduction

VistA Blood Establishment Computer Software (VBECS) Version 1.5.2 Release Notes contains information and examples of test scenarios corresponding to or relating to enhancements and modifications in VBECS.

New Features and Functions

None

Enhancements and Modifications

This section lists enhancements and modifications to VBECS 1.5.1 software. Items in the currently released *Known Defects and Anomalies* that are addressed in the VBECS 1.5.2 release are noted as 'KDA CR or DR number', other internal change requests found since the last release are listed by the CR or DR number only, e.g., KDA CR NNNN, or CR NNNN. Some corrections have a corresponding test objective in Appendix A: Validation Planning and Example Test Scenarios.

Resolution of:

- HD 342617
- HD 353065
- HD 355906
- HD 377080
- HD 378975
- HD 381548
- HD 383338
- HD 391095
- HD 391113 (duplicate of HD 391095)
- HD 408530
- HD 409062
- HD 417925
- HD 419596
- HD 431635
- HD 431970
- HD 433203
- HD 434348
- HD 434744
- HD 450387
- HD 460389
- HD 462446
- HD 464702
- HD 465721
- HD 468888
- HD 473063
- HD 479552
- HD 480272

Unit Antigen Typing

The required change will no longer allow the save of invalid weak D typing when multiple antigen typing is selected for unit antigen type test (CR 2836).

The requested change will quarantine D negative units that have an antigen typing test interpretation of inconclusive or positive (CR 2856).

The requested change disallows saving of a unit antigen typing (any specificity) when the positive and/or negative control cells and/or interpretation are incompletely resulted (KDA CR 1574).

The required change allows a user to save a partially completed worklist of units to be tested once the QC cells are entered completely (KDA CR 2764).

The requested change will no longer allow the system to fail when the user selects multiple antigen typing tests (CR 2844).

See Appendix A: Validation Planning and Example Test Scenarios, Objective 1.

Patient Antigen Typing

The requested change disallows saving of an antigen typing (any specificity) when the positive and/or negative control cells and/or are interpretation are incompletely resulted. The user may save a partially completed worklist of units to be tested once the QC cells are entered completely (KDA CR 2764).

The requested change will no longer allow the system to fail when the user selects multiple antigen typing tests (CR 2844).

The required change will no longer allow the save of invalid weak D typing when multiple antigen typing is selected for a patient antigen type test (CR 2836).

See Appendix A: Validation Planning and Example Test Scenarios, Objective 2.

Blood Product: Table Update

An update to the VBECS blood product table includes the addition of new product codes and attributes and retirement dates, as well as edits to current product code entries as detailed in Appendix B: Additional Blood Product Table Changes. Detailed information about these updates can be obtained on the ICCBBA Web site or users can navigate in VBECS using the Tools menu and Blood Products option to view the product codes

Blood product codes have been added from ICCBBA Blood Product Database updates, Version 3.33.0 (January 2010) through and including ICCBBA Version V 3.44.0 (November 2010) (E6647-E7167) with the exception of the twenty six blood products which are not available until 1.6.0 as detailed in Appendix B, Table 1.

Blood product codes have been added from the AABB Codabar Product Label Codes as updated on March 15, 2010 (Frozen and Thawed products for product codes: 12910, 12911, 12920, 12921,12930, 12931, 12940, 12941, 12950, 12951, 12960, 12961, 18641, 49211, 49212, 49213, 49214, 49215, 49216, 49217, 49218, 49611, 49612, 49613, 49614, 49615, 49616, 49617, 49618).

The maximum storage time for closed, pooled platelets that indicate bacterial monitoring or bacterial testing are now five days. These product codes are listed in Appendix B, Table 2.

The core condition for these Codabar Thawed Cryoprecipitate products was changed to None/XX/rt: 10100, 10120, 10140, 10200, 10300, 11100, 11120, 11200, 27583, 27584, 27709, and 27710 as part of the modification update which will be completed in 1.6.0. These product codes do not present as a thawed target for single unit thaw modification. See the *FAQ Modification Target Not Available*.

When a single unit of thawed cryoprecipitate is required a user can follow one of these processes:

- Enter the frozen cryoprecipitate products into VBECS inventory. When needed as a thawed product, re-entering the unit as the thawed product via Incoming Shipment. The newly entered unit will not require modification and is available for immediate selection. The product codes are different and will not create a duplicate unit. Then inactivate or discard the frozen unit to update your frozen inventory. Have a canned comment configured for Discard or Inactivation to describe the action.
- Maintain an off-line inventory of the frozen cryoprecipitate products, entering the unit as a thawed product into VBECS when needed. The newly entered unit will not require modification and is available for immediate selection.

Thaw/Pool:

The Thaw/Pool modification option will present these product codes as a thawed target product code but they may not be processed through Select Unit. The displayed product code, 27645, must be used in most circumstances.

The default product volume has been changed from 450 to 225 for all product codes related to frozen or thawed apheresis fresh frozen plasma and apheresis plasma. Use Edit Unit Information to adjust the volume. These product codes are not listed in Appendix B.

The terminology for Platelet Additive Solution (PAS) was updated from Roman numerals to alphabetic identifiers in the product long and short names, i.e., PASIII is now PAS-C, which is approved for use in the United States. These product codes are not listed in Appendix B.

The VBECS blood product table also contains edits to existing product code entries. See Appendix B: Additional Blood Product Table Changes, Table 2 for Codabar Product Codes and Table 3 for ISBT 128 Product Code details.

See Appendix A: Validation Planning and Example Test Scenarios, Objective 8.

Accept Orders

The requested change will allow the selection of an order associated with a specimen UID from 10-15 alphanumeric characters (CR 2877).

This change has been made per a request of the Lab Re-Engineering Project and does not alter specimen UID currently created by VistA.

See Appendix A: Validation Planning and Example Test Scenarios, Objective 6.

Patient Testing

The requested change enables the Specimen UID field in the Pending Task List Search Parameters area in the Diagnostic Tests and Component Orders list to use scanned information to filter the displayed list to only the scanned specimen's orders (KDA CR 2056).

The requested change will enforce the performance of a full crossmatch (AHG phase) when a database conversion antibody is present in a patient's record (CR 2900).

See Appendix A: Validation Planning and Example Test Scenarios, Objective 6.

Select Unit for Patient

The requested change will prevent unit selection based on a VistA converted ABO/Rh record when an ABO/Rh discrepancy has been created (CR 2801).

The requested change will correct the message text displayed during unit selection when the current specimen's ABO/Rh test is discrepant with the VistA converted blood type or the previous VBECS blood type of record (DR 3739).

The requested change will allow associating a specimen UID from 10-15 alphanumeric characters with a component order that was initially processed without a specimen UID, i.e., uncrossmatched blood (CR 2877).

The required change will further improve the system response when users are selecting, printing tags or forms, or issuing blood products associated with the patient's same component order (CR 2899).

The required change will save the antibody specificity from VistA converted records as part of an exception record processed in Select Unit (CR 2910).

See Appendix A: Validation Planning and Example Test Scenarios, Objective 3 and 7.

Issue Unit

The requested change will correctly display the tool tip message stating that "Testing Incomplete at time of issue" when the Antibody Screen test is invalidated and pending result (CR 2822).

The required change will display a tooltip message with a group O unit on the Emergency Issue tab when issuing a unit to a patient with an unresolved ABO/Rh Discrepancy (CR 2889).

The required change will further improve the system response when users are selecting, printing tags or forms, or issuing blood products associated with the patient's same component order (CR 2899).

The required change will save the antibody specificity from VistA converted records as part of an exception record processed in Issue Unit (CR 2910).

See Appendix A: Validation Planning and Example Test Scenarios, Objective 4 and 7.

See Appendix C: Locate a VistA Converted Patient Record.

Print Unit Caution Tag and Blood Transfusion Record Form (BTRF)

The requested change will allow the user to select all or deselect all items on the displayed list and print the associated caution tag and/or BTRF (DR 3937).

The required change will further improve the system response when users are selecting, printing tags or forms, or issuing blood products associated with the patient's same component order (CR 2899).

The requested change will engage data locks on the unit and specimen records (DR 3938).

When a unit record is selected in the option, the simultaneous selection of the unit record is disallowed in the option and the following options:

- Select Unit, Modify Unit
- Patient Testing (crossmatch)

- Release Unit from Patient Assignment
- Issue Unit
- Invalidate Patient Testing (crossmatch)

When a unit record associated with a patient specimen is selected in the option, the simultaneous selection of the specimen is disallowed in the option and in the following options:

- Transfusion Reaction Workup
- Maintain Specimen
- Issue Unit
- Invalidate Patient Testing.

The required change will print an antibody specificity from VistA converted records on the BTRF (CR 2907).

See Appendix A: Validation Planning and Example Test Scenarios, Objective 7.

Unit History Report

The requested change will display "Inconclusive" indicating an Inconclusive interpretation in the Unit Antigen Typing section of the Unit History Report when the unit's antigen typing test was interpreted as I (Inconclusive) (CR 2853).

See Appendix A: Validation Planning and Example Test Scenarios, Objective 1, Scenario 4.

VBECS Version Numbers

The requested change alters the way VBECS versions will be displayed on the patch associated user documentation. In previous VBECS patch releases, the user documentation referred to the VBECS version in a 4-digit format (e.g., 1.5.0.4 – where 1.5.0 represents the patch version and 4 is the patch build number). The build number is used by VBECS support for diagnostic and troubleshooting purposes.

In this and future releases, the VBECS version will be represented with only the first 3 digits (e.g., 1.5.2) and will appear that way in all user documentation to simplify readability. The full 4-digit version can still be found under the **Help**, **About** window in VBECS and will appear in patch installation guides where build specific files are referenced (CR 2834).

Local validation of changes is recommended.

VBECS Administrator and VBECS

The required change displays the correct text in the tooltip after clicking YES to confirm the changes the correct text appears in the pop-up (CR 2837).

Local validation of changes is recommended.

Untestable System-Level Corrected Code Requests

The required change will no longer include patient information when a CPRS order is rejected due to the excessively long patient name (>30 characters total) (CR 2898).

When VBECS receives a new order or patient update message from VistA with a patient's name exceeding 30 characters, an email message is sent to the VBECS Administrator with brief information regarding the problem. The Administrator can then check the server event log for the detailed information (DR 3911).

VistA Software Dependency

None

VBECS User Documents

See each guide's Revision History for details about changes in that document.

Obtain the updated VBECS documents by retrieving them from the VistA Documentation Library (VDL):

- *VistA Blood Establishment Computer Software (VBECS) 1.5.2 Patch Installation Guide*
- *VistA Blood Establishment Computer Software (VBECS) 1.5.2 Release Notes*

The ANONYMOUS.SOFTWARE directory is at one of the following Office of Information (OI) Field Offices. Sites may retrieve documentation in either ".PDF" or ".DOC" format in one of the following ways:

1) The preferred method is to FTP the files from Download.vista.med.va.gov.
2) Sites may also elect to retrieve documentation directly from a specific server as follows:

Albany	ftp.fo-albany.med.va.gov
Hines	ftp.fo-hines.med.va.gov
Salt Lake City	ftp.fo-slc.med.va.gov

Customer Support

Questions regarding the installation of or validation scenarios for this release or the products associated with this release should be directed to the National Help Desk if they are not resolvable by the local help desk.

Problems?

Contact your Information Resource Management (IRM) or Laboratory Automated Data Processing Application Coordinator (ADPAC) if you encounter problems and for training support.

VA Service Desk Primary Contact

For Information Technology (IT) support, call the VA Service Desk (VASD), 888-596-HELP (4357) (toll free), 24 hours per day, 7 days per week. [Users with access to the VASD-supported request tool (e.g., Remedy) may file a ticket in lieu of calling the VASD.]

VA Service Desk Alternate Contacts

- During business hours: As an alternate to the toll-free number, call 205-554-4710 (or 205-554-4711 through 205-554-4725), Monday through Friday (excluding holidays), 8:00 a.m. to 7:30 p.m. (Eastern Time).
- Outside business hours: Call 205-554-3459 (or 205-554-3460 through 205-554-3465, 205-554-3472, 205-554-3475, or 205-554-3482 through 205-554-3485).
- Web site: http://vaww.va.gov/emc/index.asp?s=6&p=nhd_home (VHA Enterprise Management Center)
- Email: vhacionhd@va.gov.

References

- AABB Complete List of Codabar Product Label Codes updated 3/15/10
- AABB Standards for Blood Banks and Transfusion Services, 26th edition, 2009
    - Reference Standard 5.1.8A—Requirements for Storage, Transportation, and Expiration
- AABB Technical Manual,16th edition, 2009
    - TABLE 9-1. Storage and Expiration Requirements for Blood Components
- ICCBBA, Product Description Databases: Version 3.20.0, Version 3.21.0, Version 3.22.0, Version 3.23.0, Version 3.24.0, Version 3.25.0, Version 3.26.0, Version 3.27.0, Version 3.28.0, Version 3.29.0, Version 3.30.0, Version 3.31.0, Version 3.32.0, Version 3.33.0, Version 3.34.0, Version3.35.0, Version 3.36.0, Version 3.37.0, Version 3.38.0, Version 3.39.0, Version 3.40.0, Version 3.41.0, Version 3.42.0, Version 3.43.0, and Version 3.44.0.
- ICCBBA, US Consensus Standard, Version 3.0.0_draft q, May 2010, Section 1. 7.7.12, Pooled platelets with bacterial monitoring or bacterial test

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Appendices

Appendix A: Validation Planning and Example Test Scenarios

Refer to *Known Defects and Anomalies* for unresolved ClearQuest Code Requests (CRs) and Document Requests (DRs).

The test scenarios are examples of possible validation activity. Execution of the example test scenario may not be appropriate at your facility.

Each site is responsible for evaluating changes for their intended use and for establishing additional validation test scenarios (as appropriate).

Documenting your local Validation Plan for any patch related to VBECS, including VistA namespace patches that are identified as an external dependency in the release notes such as LR, OR, VBEC is required by the inspecting agencies. The focus of local validation is the effect of the changes as related to YOUR facility's processes, procedures and practices.

As you read thru the Release Notes or associated Patch Descriptions which describe the changes made take time to evaluate each change and ask yourself:
Does the change apply to my site? Yes or no…OR "I don't know"!

(If "I don't know" applies, find a resource who does know and can make that assessment.)

IF the change does apply to your site, then HOW does it apply to my site?

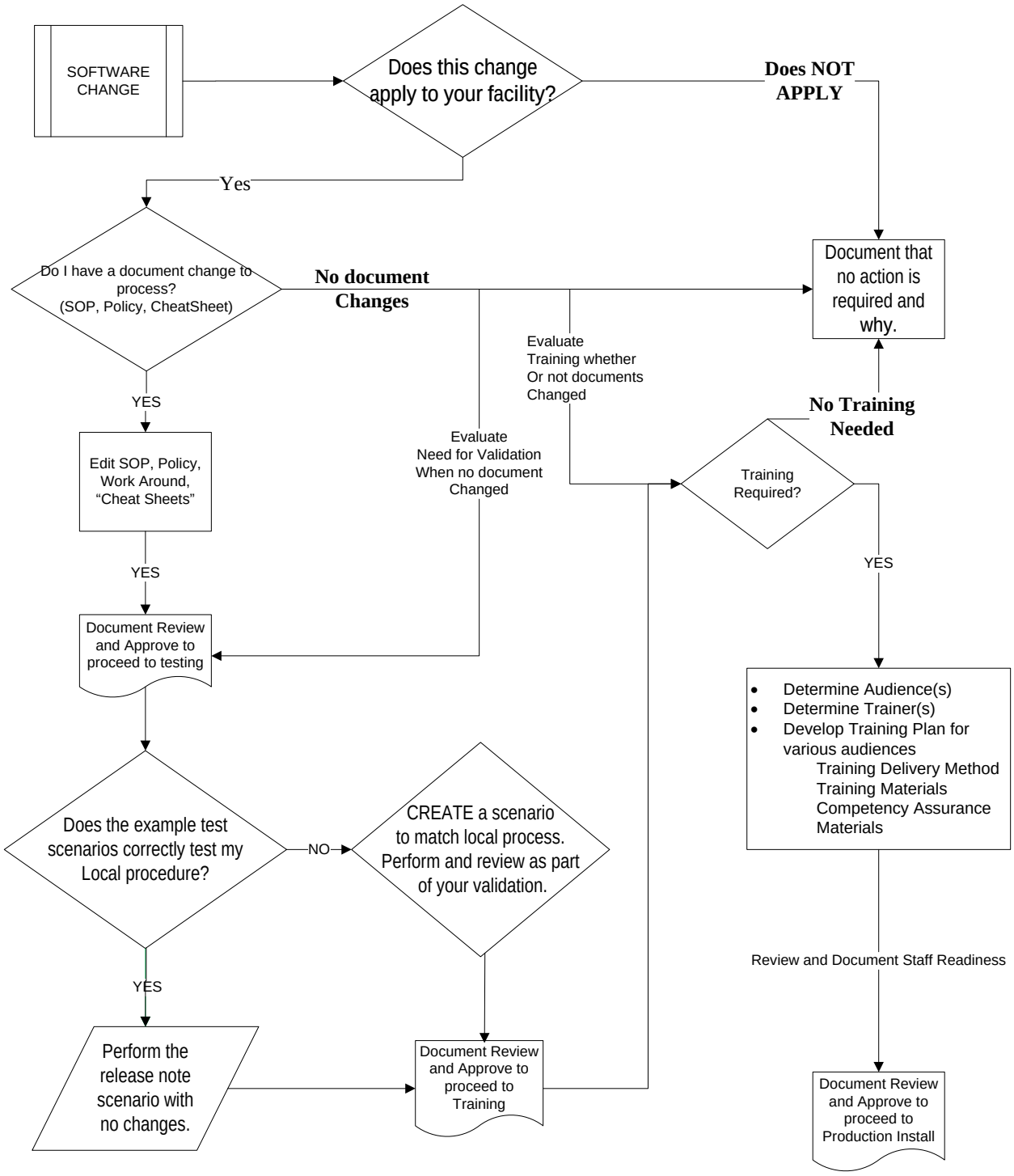
- If it does apply, do I want to test as described in the example scenario or differently?
- Is the example scenario reflective of my LOCAL PROCESS? If not, add/remove/edit as needed.
- Do I need to test a different set of data or process?
- Do I have a list of my supplier's product codes for evaluation of blood product updates?
- Do I need to update any circulated documents or information (websites? procedures? Policies? Workarounds?)
- Do I need to perform any training? Blood Bank Staff, IT Staff, or Clinical Staff.

Blood Product Table evaluation must be limited and focused on product codes that may actually be received by your site via your local supplier. The full international table is included in VBECS; random testing of product codes will only lead to confusion.

See Fig.2 Validation Decision Process flowchart to help you assess any one change.

Fig. 2 Validation Decision Process

Facility Name	Date	Evaluator Name



EXAMPLE Test Scenarios

Each test objective number corresponds to an item in Enhancements and Modifications.

When the data instructions are numbered steps, the steps must be executed in that order. When the data steps are not numbered, the steps may be performed in any order.

Option: Unit Antigen Typing	
Test Objective 1): Demonstrate the Unit Antigen Typing changes work as described. Note: The cursor does not move as expected through the grid. Ensure that you are in the right cell before entering results (CR 3014).	
Scenario 1: Verify that invalid weak D typing is no longer saved with multiple valid antigen typing tests.	
Data	Create a worklist to type at least one unit for weak D and at least one other antigen specificity.
User	No specific user role is required.
Steps	1. Enter an invalid weak D typing with interpretation so the row validation icon displays  . 2. Select the other antigen specificity tab; enter valid test results. 3. Save the results and interpretations in Step 2. 4. Return to the weak D tab, the OK button is disabled. 5. Close the form using the Cancel button and confirming exit without saving data. [Do not use the red x to clear the grid (CR 2881).] 6. Open the worklist . The weak D tab is blank. 7. Enter a valid result pattern.
Expected Outcome	• In Step 4, the OK button on the weak D tab is disabled and the invalid test may not be saved. • In Step 7, the OK button is enabled and the valid test can be saved.
Reports and Display	• Testing Worklist Report, Unit Typing section: Step 4 is indicated as an invalidated test by the user. The valid data appears as saved. • Unit history report, header and Antigen Typing section: antigen typing information accurately. • The Unit selector tool, testing tab presents the antigen typing information accurately.
Scenario 2: Verify that a user may select a partially completed antigen typing worksheet that contains tests for multiple antigen types.	
Data	Create a worklist to type at least one unit for multiple antigen specificities, may or may not include weak D. Optionally, use the blood unit from Scenario 1 by selecting different antigen specificities.
User	No specific user role is required.
Steps	1. Enter the QC for one of the antigen specificities (tab); do not result the blood unit. Click OK to save on this tab. 2. Do not enter any results for the other antigen specificities (tab). 3. Cancel these pages. 4. Open the worklist and complete the work.
Expected Outcome	• In Step 1, the system will allow the first tab to be saved with partially completed unit tests, but not without completed QC. • In Step 2, the system will allow the cancel/close of these worksheets but will not enable the OK button to save blank sheets. • In Step 4, the antigen specificity with QC completed in Step 1 displays the uneditable QC and empty and editable unit results cells. The tabs with no results entered in Step 2 have blank and editable cells.

Option: Unit Antigen Typing	
Reports and Display	• Testing Worklist Report, Unit Typing section: Step 4 is indicated as an invalidated test by the user. The valid data appears as saved. • Unit History Report, Header and Antigen Typing section: antigen typing information accurately. • The Unit selector tool, testing tab presents the antigen typing information accurately.
Scenario 3: Verify that the system automatically quarantines a unit when the weak D typing is inconclusive or positive.	
Data	1. Create a worklist to type at least two units for weak D. 2. Complete the reagent QC for the weak D lot number, if a rack with a different lot number than the previous scenarios is used.
User	No specific user role is required.
Steps	1. Enter an inconclusive weak D result pattern and interpretation for the first unit. 2. Enter a positive weak D result pattern and interpretation for the second unit. 3. Save these results. 4. Respond to all messages and overrides to save the entered data. 5. Go to the Unit History Report, select each unit.
Expected Outcome	• In Step 3, the system will allow the save of the unit results and interpretations. • In Step 4, the system will display appropriate messages and required overrides as the results do not match the blood type entered at login. • In Step 5, Each unit has its quarantine status indicated in the pick list view (using the ellipsis to select the unit) and in the mock label display after the unit is selected as well as in the Quarantine Details section. • An optional verification may be performed by attempting to select the quarantined unit for a suitable patient. This is not allowed by the application.
Scenario 4: Verify that "Inconclusive" is displayed when the unit weak D antigen typing test interpretation is "inconclusive".	
Data	View the first unit from Option: Unit antigen typing, Scenario 3, Unit 1 which was resulted as inconclusive.
User	No specific user role is required.
Steps	Open the tested unit's Unit History Report and view the Antigen Typing Section of the report.
Expected Outcome	The weak D test is displayed as "Inconclusive".

Option: Patient Antigen Typing	
Test Objective 2): Demonstrate the Patient Antigen Typing changes work as described.	
Scenario 1: Verify that a user may select a partially completed antigen typing worksheet that contains tests for multiple antigen types. Note: Patient tests may be saved when partially completed. These tests do NOT behave the same as Unit Antigen Typing tests. There are no navigation problems in the Patient Testing Grids.	
Data	Create a worklist to type a patient for multiple antigen specificities, may or may not include weak D. At least one of the specificities must be a new lot number that requires QC with this test.
User	No specific user role is required.

Option: Patient Antigen Typing	
Steps	1. Enter the QC for one of the antigen specificities (tab) do not enter the QC interpretation; do not result the patient. Click save on this tab. 2. Select the antigen typing tests for the patient again. 3. Do not enter any results for the other antigen specificities (tab). 4. Cancel these pages by clicking the cancel button. 5. Open the worklist and complete the work.
Expected Outcome	• In Step 1, the system will allow the tab to be saved as this is a partially completed patient test. • In Step 4, the system will allow the cancel/close of these worksheet. • In Step 5, the worklists display as saved or cancelled and allow data entry in the blank portions of the worksheet. Previously entered test results are not editable.
Scenario 2: Verify that invalid weak D typing is no longer saved with multiple valid antigen typing tests.	
Data	Create a worklist to type a patient for weak D and at least one other antigen specificity.
User	No specific user role is required.
Steps	1. Enter an invalid weak D typing with interpretation so the row validation icon displays E Error. 2. Select the other antigen specificity tab; enter valid test results, the OK button does NOT enable. 3. Return to the weak D tab, clear the invalid result pattern, the OK button is enabled. 4. Return to the other antigen specificity tab, the OK button is enabled. 5. Enter a valid result pattern in the weak D tab. The OK button is enabled. 6. Click OK and save all results.
Expected Outcome	• In Step 2, the OK button is disabled and valid or invalid tests may not be saved. • In Step 4, 5, 6, the OK button is enabled and all results can be saved either separately or in total.

Option: Select Unit for Patient	
Test Objective 3): Demonstrate that Select Unit for Patient option performs as described with a VistA converted ABO/Rh blood type record.	
Scenario 1: Verify that the correct message displays regarding an unresolved ABO/Rh discrepancy created with a current test and a VistA converted blood type. **Note:** • Ensure that the patient has no antibodies or antigen negative requirements that will complicate the test scenario. • **Do not use Group O for either the VistA converted or current specimen ABO type interpretation as group O red blood cells are always selectable for emergency issue situations.** • This scenario specifies use of red blood cell components in the test. You may want to test other product types paying close attention to the changes in compatibility for the selected component type.	
Data	Create, accession and accept TAS and RBC orders for a patient (#1) whose VistA converted blood type is **not group O**. Complete the ABO/Rh test creating an ABO discrepancy with the historic blood type (**not group O**). Complete the ABS as a negative test.
User	No specific user role is required.
Steps	1. Open Select Unit option, a message is displayed indicating that the patient has an unresolved ABO discrepancy and requires emergency issue procedures for blood issue. 2. Click the Add Unit button. 3. If electronic crossmatch is enabled, the eXM status window displays a message that the patient is ineligible due to the ABO discrepancy.

Option: Select Unit for Patient	
Expected Outcome	• The system will display a message that the ABO/Rh on the current specimen does not agree with the historic blood type result.
Scenario 2: Verify that type specific blood products are not selectable for the patient using the VistA converted blood type record when an ABO/Rh discrepancy has been created with this VistA converted record.	
Data	Use the patient and order from Scenario 1. Log in (Shipment, Incoming Shipment) a red blood cell unit that is the same ABO/Rh as the patient's VistA converted blood type. Perform the unit ABO/Rh Confirmation test so that the unit is selectable under normal circumstances.
User	No specific user role is required.
Steps	Attempt to select the unit that is ABO compatible with the patient's Vista converted blood type.
Expected Outcome	• The system displays an informational message and disallows selection of this unit for the patient. The unit selection fields are cleared when the OK button is clicked on the informational message.

Option: Issue Unit	
Test Objective 4): Demonstrate that the Issue Unit changes work as described for VistA converted records.	
Scenario 1: Verify that the appropriate message displays when selected units are eligible for issue due to an unresolved ABO/Rh discrepancy with a VistA converted ABO/Rh, including Group O units.	
Data	You may use the RBC order for the patient in Option: Select Unit for Patient, Objective 1. Or you may use a different patient: place a new TAS and RBC order for and create an ABO/Rh discrepancy for the patient using a repeat ABO/Rh test or a different ABO/Rh test.
User	No specific user role is required.
Steps	1. Enter a group O Pos or Neg blood unit. Perform the unit ABO/Rh Confirmation test so that the unit is selectable under normal circumstances. 2. Choose this unit for the patient in Select Unit. 3. Choose a group O unit for the patient's RBC order in Issue Unit option. 4. Place the mouse pointer over the unit line item to view the tool tip message.
Expected Outcome	The tool tip message displays a message that the patient has an unresolved ABO discrepancy.
Scenario 2: Verify that type specific units selected prior to ABO/Rh test invalidation may no longer be issued. (Ensure that the patient has no antibodies or antigen negative requirements that will complicate the test scenario.)	
Data	Using a patient with no ABO/Rh record in Vista: 1. Using TAS and RBC Order #1, complete the ABO/Rh test. **Do not complete ABS**. 2. Select and crossmatch an O Rh Negative Unit (Blood Units, Select Unit)
User	No specific user role is required.
Steps	1. Go to Patient, Issue Blood Components, emergency issue tab. Hover over the yellow triangle next to the unit to display the tooltip message. 2. Complete the ABS on TAS Order #1. 3. Go to Patient, Issue Blood Components, and view the Assigned Units tab. 4. Release the unit from patient assignment. 5. Invalidate the ABS test for TAS #1. 6. Re-select and crossmatch the unit (Blood Units, Select Units). 7. Go to Patient, Issue Blood Components. Hover over the yellow triangle next to the unit on the emergency issue tab.

Option: Issue Unit	
Expected Outcome	• In Step 1, a tooltip message states that testing is incomplete. • In Step 3, the unit appears on the Assigned Units tab. • In Step 7, a tooltip message states that testing is incomplete.

Option: Patient Testing	
Test Objective 6): Demonstrate that scanning a specimen UID will display all current incomplete orders associated with the selected specimen on the Pending Task List tab. Note: Component orders selected for testing in this option must be associated with a specimen UID. Using a component order that is not associated with a UID does not provide the same system response.	
Scenario 1: Verify that only the orders associated with the scanned specimen UID display on the Pending Task list.	
Data	Patient #1: Place a CPRS Order and accession at least 1 diagnostic test and 1 component order which are associated with a unique specimen UID (UID #1). Patient #1: Place a CPRS Order and accession at least 1 diagnostic test and 1 component order which are associated with a unique specimen UID (UID #2). Note: In order to generate two unique UIDs in VBECS, place an order for UID #1 and then accession it. Then place an order for UID #2 and accession it. Placing two orders and then accessioning the orders will result in all orders under UID #1." Accept all orders in VBECS. (Orders, Accept Orders)
User	No specific user role is required.
Steps	1. Patients, Patient Testing: view the default (unfiltered by Search) full list of diagnostic tests displays the pending diagnostic tests for UID #1 and UID #2. 2. SCAN the specimen UID #2 in the Specimen UID field in the Pending Task List Search Parameters section. 3. Click Search.
Expected Outcome	• The list of diagnostic tests in the Pending Task List updates and displays only those associated with specimen UID #2.
Scenario 2: Verify that only the orders associated with the scanned specimen UID display on the Pending Task list.	
Data	Use the component orders placed in Data, Scenario 1.
User	No specific user role is required.
Steps	1. Units, Select Units: the default (unfiltered by Search) full list of component orders displays the pending component orders for UID #1 and #2. 2. SCAN specimen UID #2 in the Specimen UID field in the Pending Task List Search Parameters section. 3. Click Search.
Expected Outcome	• The list of component orders on the Pending Task List updates and displays only those associated with specimen UID #2.
Scenario 3: Verify that the performance of a full crossmatch (AHG phase) is required when a database conversion antibody is present in a patient's record. NOTE: Do not select AHG only phases for the ABS or Crossmatch testing for this scenario.	
Data	1. Select a patient with a VistA converted antibody specificity that requires antigen negative red blood cells. 2. Place a CPRS TAS and RBC order for the selected patient. 3. Sign, accession and accept both orders. 4. Complete the TAS testing with testing details set for ALL PHASES to enable a full grid for the crossmatch. 5. Select a unit that is antigen negative for crossmatch with the patient.

Option: Patient Testing	
User	No specific user role is required.
Steps	1. Select the unit for the patient RBC order. 2. Attempt to save an IS only serologic crossmatch test pattern. Enter results in the grid for all phases. (IS = 0, 37= X, AHG =X, CC= X, Interp =C.) *You must enter the X for Not Tested. Leaving 37, AHG, CC and Interp blank is considered a partial test.* 3. Clear the entries using the red X button. 4. Complete the serologic crossmatch test for all phases.
Expected Outcome	• In Step 2, the OK button is not enabled and the IS test only cannot be saved. A message is displayed that a full crossmatch is required. • In Step 3,the OK button is enabled and the test may be saved.

Option: Select Unit, Issue Unit, Print Unit Caution Tag and BTRF	
Test Objective 7): Demonstrate the improved response time when choosing a large number of units for one patient.	
Scenario 1: Verify that the system responds with a shortened response time when selecting and crossmatching six (6) to ten (10) blood products for a single patient compared to 1.5.1.0.	
Data	Place and accession a TAS and RBC order for a patient in CPRS and VistA Lab. Accept the orders in VBECS (Orders, Accept Orders). Log in (Shipments, Incoming Shipment) the number of units required to mimic a large volume crossmatch scenario at your hospital, at least six (6) units. Perform the required ABO/Rh confirmation testing on the units. Perform the TAS on the patient then perform the steps.
User	No specific user role is required.
Steps	1. Select all of the blood units in one session (Blood Units, Select Units). 2. Perform crossmatch testing on all units selected in Step 1. 3. Print the BTRF and Caution Tag for each unit. 4. Issue all units (Patients, Issue Blood Components).
Expected Outcome	• The system responds with a shortened, improved response time when selecting and issuing blood products for a single patient compared to 1.5.1.0. Note: The improved response time will vary from site to site depending on a variety of other factors.
Scenario 2: Verify that the system demonstrates an improved response time when multiple users are choosing different blood component units for different component orders for a single patient. Note: Attempts to use the same blood order by multiple users will result in a data lock, which is expected functionality unrelated to this correction (CR 2758). Attempt to mimic a real life situation where multiple staff members are busy preparing a variety of products or handling the unit processing for the same patient	
Data	Place and accession the FFP, RBC, and PLT component orders for the patient used in Scenario 1 in CPRS and VistA Lab. Accept the orders in VBECS (Orders, Accept Orders). Log in (Shipments, Incoming Shipment) the number of units required to mimic a large volume transfusion scenario at your hospital, at least six (6) units of the same or different product types. For example, RBC to be crossmatched, while FFP is thawed and something different (platelets) is being issued. Alternately, choose any one product type in various states of selection, issue and modification associated with the same patient may be selected.
User	No specific user role is required for the multiple users required to execute this scenario, at minimum two (2) users.

Option: Select Unit, Issue Unit, Print Unit Caution Tag and BTRF	
Steps	Simultaneously multiple users will process different component orders so that multiple users are not attempting to select the same order or unit and encounter a data lock. User one: 1. Assign a batch of FFP blood Units (Blood Units, Select Units). 2. Choose batch of FFP blood units and THAW them (Blood Units, Modify Units). 3. Issue these units 4. Repeat steps 1-3as mimics your local occurrences. User two: 1. Assigns PLT units for the same patient (Blood Units, Select Units). 2. If you pool, you may want to include pooling in this scenario. MODIFY them [as applicable to your site (Blood Units, Modify Units)]. You may also opt to insert a different modification method as applicable to your site. 3. Issues the platelets 4. Repeat steps 1-3as mimics your local occurrences. User Three: 1. Assign a batch of RBC blood Units (Blood Units, Select Units). 2. Choose batch of RBC blood units and MODIFY them [as applicable to your site (Blood Units, Modify Units)]. 3. Issue these units. 4. Repeat steps 1-3as mimics your local occurrences.
Expected Outcome	• The system responds with a shorter response time to all users choosing units for the patient order at each step. Note: The improved response time will vary from site to site depending on a variety of other factors. Locking errors may be encountered if the users attempt to choose the same units.

Option: Blood Product Code Change **(Generic Script, Repeat as needed for each product code that you may receive from your blood supplier.)**	
Test Objective 8): Demonstrate that the blood product code can be processed throughout VBECS for patient transfusion.	
Scenario 1 (Incoming Shipment): Verify the unit can be processed into the facility's inventory using Incoming Shipment.	
Data	N/A
User	No specific user role is required.
Steps	Add a blood unit with the indicated product code to the facility inventory (Blood Units, Incoming Shipment).
Expected Outcome	The product code can be associated with your shipper.
Scenario 2 (Modification): Verify the unit can be processed through enabled modification process(es). NOTE: Perform only real life modification patterns. Processing a single blood unit through multiple modifications may not present a target.	
Data	Log in (Shipments, Incoming Shipment) a blood unit with the indicated product code.

Option: Blood Product Code Change (Generic Script, Repeat as needed for each product code that you may receive from your blood supplier.)	
User	No specific user role is required. NOTE: If the unit is to be modified repeatedly, a Traditional Supervisor may Remove the Final Status to allow use of the same blood unit in multiple modifications.
Steps	Modify the blood unit in an applicable modification.
Expected Outcome	Blood unit with the indicated product code can be modified to a transfusable product code.
Scenario 3 (Selection and Issue): Verify the unit can be processed through normal path for patient transfusion.	
Data	Place and accession the appropriate orders for the patient Accept the orders in VBECS (Orders, Accept Orders).
User	No specific user role is required for the multiple users required to execute this scenario, at minimum two (2) users.
Steps	User one: 1. Assign the Unit (Blood Units, Select Units). 2. Optionally, print the BTRF and Caution Tag. 3. Issue the Unit (Patients, Issue Blood Unit).
Expected Outcome	Blood unit with the indicated product code can be issued for patient transfusion.

Appendix B: Additional Blood Product Table Changes

There are three tables for this release. These tables are organized by ascending Product Code order.

Table 1: Product codes not in the database at this time

Table 2: Additional Codabar Blood Product Table change details

Table 3: Additional ISBT 128 Blood Product Table change details

Figure 1: Key

Code	Interpretation
Retire Date	This is a date that the code is no longer in use for blood collection. This does not affect processing of existing units.
PV	Product Volume (the default average volume)
MST	Maximum Storage Time (from receipt to expiration)
@81	None/450mL/rt
@83	None/XX/rt
@BF	None/NS/rt, retired 9/1/2008
B1	System Integrity of *Default: Closed (This attribute is not assigned to products. It is the default and assumed unless otherwise indicated by the attribute B2. This is an internal data correction that is not testable.)
H1	*Def Aphr:No additional info (This attribute is not assigned to products. It is the default and assumed unless otherwise indicated by another H attribute. This is an internal data correction that is not testable.)
J1	*Def Dosage:No additional info (This attribute is not assigned to products. It is the default and assumed unless otherwise indicated by another J attribute. This is an internal data correction that is not testable.)
A3	The A Attribute is used to indicate the product's Intended Use. A3 means that the product is for manufacturing, specifically, "For mnf:noninjectable".

Table 1 contains product codes with complex attribute sequences, most of which were not requested by US consumers. This long sequence exceeds the current database field. The associated update is scheduled for 1.6.0. At this time, these product codes cannot be processed in VBECS. Suggested workaround codes are provided, as available and appropriate.

Table 1: Product codes not in the database at this time

Product Type Name	Product Code	Product Name	Workaround product code suggestion:
Apheresis PLATELETS	E6846	**This is the only product code requested by a US consumer.** Apheresis PLATELETS|ACD-A/XX/20-24C|Open|Irradiated|ResLeu:<5log6|Plasma reduced|3rd container|<3log11 plts	E2988 Apheresis PLATELETS|ACD-A/XX/20-24C|Open|Irradiated|ResLeu:<5log6|Plasma reduced|3rd container

Product Type Name	Product Code	Product Name	Workaround product code suggestion:
POOLED PLATELETS	E6366	Requested by Canada. POOLED PLATELETS|CPD/XX/20-24C|Open|Irradiated|ResLeu:<5log6|Plasma reduced|Buffy coat plts prep|From 4 donors	E5229 POOLED PLATELETS|CPD/XX/20-24C|Open|Irradiated|ResLeu:<5log6
Apheresis PLATELETS	E6376	Requested by Canada. Apheresis PLATELETS|ACD-A/XX/20-24C|Open|Irradiated|ResLeu:<5log6|Plasma reduced|1st container|<3log11 plts	E2986 Apheresis PLATELETS|ACD-A/XX/20-24C|Open| Irradiated|ResLeu:<5log6|Plasma reduced|1st container
Apheresis PLATELETS	E6377	Requested by Canada. 'Apheresis PLATELETS|ACD-A/XX/20-24C|Open|Irradiated|ResLeu:<5log6|Plasma reduced|2nd container|<3log11 plts	E2987 Apheresis PLATELETS|ACD-A/XX/20-24C|Open| Irradiated|ResLeu:<5log6|Plasma reduced|2nd container
Apheresis PLATELETS	E6421	Requested by Canada. Apheresis PLATELETS|ACD-A/XX/20-24C|Open|Irradiated|ResLeu:<5log6|Plasma reduced|1st container|Approx 300 log9 plts	E2986 Apheresis PLATELETS|ACD-A/XX/20-24C|Open|Irradiated|ResLeu:<5log6|Plasma reduced|1st container
Apheresis PLATELETS	E6422	Requested by Canada. Apheresis PLATELETS|ACD-A/XX/20-24C|Open|Irradiated|ResLeu:<5log6|Plasma reduced|2nd container|Approx 300 log9 plts	E2987 Apheresis PLATELETS|ACD-A/XX/20-24C|Open|Irradiated|ResLeu:<5log6|Plasma reduced|2nd container
POOLED PLATELETS	E6528	Requested by Poland. POOLED PLATELETS|CPD/XX/20-24C|Open|Irradiated|ResLeu:<1log6|Plasma reduced/Plasma added|Buffy coat plts prep|From 2 donors	E6916 POOLED PLATELETS|CPD/XX/20-24C|Open|Irradiated|ResLeu:<1log6|Buffy coat plts prep|From 2 donors
POOLED PLATELETS	E6529	Requested by Poland. POOLED PLATELETS|CPD/XX/20-24C|Open|Irradiated|ResLeu:<1log6|Plasma reduced/Plasma added|Buffy coat plts prep|From 3 donors	E6917 POOLED PLATELETS|CPD/XX/20-24C|Open|Irradiated|ResLeu:<1log6|Buffy coat plts prep|From 3 donors
POOLED PLATELETS	E6530	Requested by Poland. POOLED PLATELETS|CPD/XX/20-24C|Open|Irradiated|ResLeu:<1log6|Plasma reduced/Plasma added|Buffy coat plts prep|From 4 donors	E6918 POOLED PLATELETS|CPD/XX/20-24C|Open|Irradiated|ResLeu:<1log6|Buffy coat plts prep|From 4 donors

Product Type Name	Product Code	Product Name	Workaround product code suggestion:
POOLED PLATELETS	E6531	Requested by Poland. POOLED PLATELETS|CPD/XX/20-24C|Open|Irradiated|ResLeu:<1log6|Plasma reduced/Plasma added|Buffy coat plts prep|From 5 donors	E6919 POOLED PLATELETS|CPD/XX/20-24C|Open|Irradiated|ResLeu:<1log6|Buffy coat plts prep|From 5 donors
POOLED PLATELETS	E6532	Requested by Poland. POOLED PLATELETS|CPD/XX/20-24C|Open|Irradiated|ResLeu:<1log6|Plasma reduced/Plasma added|Buffy coat plts prep|From 6 donors	E6920 POOLED PLATELETS|CPD/XX/20-24C|Open|Irradiated|ResLeu:<1log6|Buffy coat plts prep|From 6 donors
POOLED PLATELETS	E6533	Requested by Poland. 'POOLED PLATELETS|CPD/XX/20-24C|Open|Irradiated|ResLeu:<1log6|Plasma reduced/Plasma added|Buffy coat plts prep|From 7 donors	E6921 POOLED PLATELETS|CPD/XX/20-24C|Open|Irradiated|ResLeu:<1log6|Buffy coat plts prep|From 7 donors
POOLED PLATELETS	E6534	Requested by Poland. POOLED PLATELETS|CPD/XX/20-24C|Open|Irradiated|ResLeu:<1log6|Plasma reduced/Plasma added|Buffy coat plts prep|From 8 donors	E6922 POOLED PLATELETS|CPD/XX/20-24C|Open|Irradiated|ResLeu:<1log6|Buffy coat plts prep|From 8 donors
POOLED PLATELETS	E6965	Requested by Poland. POOLED PLATELETS|PAS-E/XX/20-24C|Open|Irradiated|ResLeu:<1log6|Supernat rem/Plasma added|Buffy coat plts prep|From 2 donors	This code indicates the anticoagulant PAS-E that is not approved for US use at this time.
POOLED PLATELETS	E6966	Requested by Poland. POOLED PLATELETS|PAS-E/XX/20-24C|Open|Irradiated|ResLeu:<1log6|Supernat rem/Plasma added|Buffy coat plts prep|From 3 donors	This code indicates the anticoagulant PAS-E that is not approved for US use at this time.
POOLED PLATELETS	E6967	Requested by Poland. POOLED PLATELETS|PAS-E/XX/20-24C|Open|Irradiated|ResLeu:<1log6|Supernat rem/Plasma added|Buffy coat plts prep|From 4 donors	This code indicates the anticoagulant PAS-E that is not approved for US use at this time.

Product Type Name	Product Code	Product Name	Workaround product code suggestion:
POOLED PLATELETS	E6968	Requested by Poland. POOLED PLATELETS|PAS-E/XX/20-24C|Open|Irradiated|ResLeu:<1log6|Supernat rem/Plasma added|Buffy coat plts prep|From 5 donors	This code indicates the anticoagulant PAS-E that is not approved for US use at this time.
POOLED PLATELETS	E6969	Requested by Poland. POOLED PLATELETS|PAS-E/XX/20-24C|Open|Irradiated|ResLeu:<1log6|Supernat rem/Plasma added|Buffy coat plts prep|From 6 donors	This code indicates the anticoagulant PAS-E that is not approved for US use at this time.
POOLED PLATELETS	E6970	Requested by Poland. POOLED PLATELETS|PAS-E/XX/20-24C|Open|Irradiated|ResLeu:<1log6|Supernat rem/Plasma added|Buffy coat plts prep|From 7 donors	This code indicates the anticoagulant PAS-E that is not approved for US use at this time.
POOLED PLATELETS	E6971	Requested by Poland. POOLED PLATELETS|PAS-E/XX/20-24C|Open|Irradiated|ResLeu:<1log6|Supernat rem/Plasma added|Buffy coat plts prep|From 8 donors	This code indicates the anticoagulant PAS-E that is not approved for US use at this time.
Thawed Apheresis PLATELETS	E7070	Requested by Poland. Thawed POOLED PLATELETS|DMSO/XX/20-24C|Open|Irradiated|ResLeu:<1log6|Buffy coat plts prep|From 4 donors|Riboflavin-treated	E7124 Thawed POOLED PLATELETS|DMSO/XX/20-24C|Open|Irradiated|ResLeu:<1log6|From 4 donors
Thawed Apheresis PLATELETS	E7071	Requested by Poland. Thawed POOLED PLATELETS|DMSO/XX/20-24C|Open|Irradiated|ResLeu:<1log6|Buffy coat plts prep|From 5 donors|Riboflavin-treated	E7125 Thawed POOLED PLATELETS|DMSO/XX/20-24C|Open|Irradiated|ResLeu:<1log6|From 5 donors
Thawed Apheresis PLATELETS	E7094	Requested by Poland. Thawed POOLED PLATELETS|DMSO/XX/20-24C|Open|ResLeu:<1log6|Plasma reduced/Plasma added|Buffy coat plts prep|From 4 donors	E7124 Thawed POOLED PLATELETS|DMSO/XX/20-24C|Open|Irradiated|ResLeu:<1log6|From 4 donors

Product Type Name	Product Code	Product Name	Workaround product code suggestion:
Thawed Apheresis PLATELETS	E7095	Requested by Poland. Thawed POOLED PLATELETS|DMSO/XX/20-24C|Open|ResLeu:<1log6|Plasma reduced/Plasma added|Buffy coat plts prep|From 5 donors	E7125 Thawed POOLED PLATELETS|DMSO/XX/20-24C|Open|Irradiated|ResLeu:<1log6|From 5 donors
Thawed Apheresis PLATELETS	E7096	Requested by Poland. Thawed POOLED PLATELETS|DMSO/XX/20-24C|Open|Irradiated|ResLeu:<1log6|Plasma reduced/Plasma added|Buffy coat plts prep|From 4 donors	E7092 Thawed POOLED PLATELETS|DMSO/XX/20-24C|Open|Irradiated|Plasma reduced/Plasma added|Buffy coat plts prep|From 4 donors
Thawed Apheresis PLATELETS	E7097	Requested by Poland. Thawed POOLED PLATELETS|DMSO/XX/20-24C|Open|Irradiated|ResLeu:<1log6|Plasma reduced/Plasma added|Buffy coat plts prep|From 5 donors	E7093 Thawed POOLED PLATELETS|DMSO/XX/20-24C|Open|Irradiated|Plasma reduced/Plasma added|Buffy coat plts prep|From 5 donors

Table 2: Additional Codabar Blood Product Table change details

Product Type Name	Product Code	Table Changes
Apheresis RED BLOOD CELLS	03320	Removed H1 attribute
Apheresis RED BLOOD CELLS	03360	Removed H1 attribute
Apheresis RED BLOOD CELLS	03380	Removed H1 attribute
Apheresis RED BLOOD CELLS	03820	Removed H1 attribute
Apheresis RED BLOOD CELLS	04161	Removed H1 attribute
Apheresis RED BLOOD CELLS	04241	Removed H1 attribute
Apheresis RED BLOOD CELLS	04271	Removed H1 attribute
Washed Apheresis RED BLOOD CELLS	04941	Removed H1 attribute
Apheresis RED BLOOD CELLS	05161	Removed H1 attribute
Apheresis RED BLOOD CELLS	05241	Removed H1 attribute
Frozen RED BLOOD CELLS	06230	Removed B1 attribute

Product Type Name	Product Code	Table Changes
Frozen RED BLOOD CELLS	06240	Removed B1 attribute
Apheresis RED BLOOD CELLS	08361	Removed H1 attribute
Thawed CRYOPRECIPITATE	10100	Changed attribute from @81 to @83
Thawed CRYOPRECIPITATE	10120	Changed attribute from @82 to @83
Thawed CRYOPRECIPITATE	10140	Changed attribute from @81 to @83
POOLED CRYOPRECIPITATE	10191	Removed J1 attribute
Thawed POOLED CRYOPRECIPITATE	10191	Removed J1 attribute
Thawed CRYOPRECIPITATE	10200	Changed attribute from @81 C2 to @83 C2
POOLED CRYOPRECIPITATE	10291	Removed J1 attribute
Thawed POOLED CRYOPRECIPITATE	10291	Removed J1 attribute
Thawed CRYOPRECIPITATE	10300	Changed attribute from @81 D2 to @83 D2
Thawed CRYOPRECIPITATE	11100	Changed attribute from @81 to @83
Thawed CRYOPRECIPITATE	11120	Changed attribute from @82 to @83
POOLED CRYOPRECIPITATE	11191	Removed J1 attribute
Thawed POOLED CRYOPRECIPITATE	11191	Removed J1 attribute
Thawed CRYOPRECIPITATE	11200	Changed attribute from @81 C2 to @83 C2
POOLED CRYOPRECIPITATE	11291	Removed J1 attribute
Thawed POOLED CRYOPRECIPITATE	11291	Removed J1 attribute
Apheresis PLATELETS	12010	Removed J1 attribute
Washed Apheresis PLATELETS	12010	Removed J1 attribute
POOLED PLATELETS	12064	MST changed to 120 hours (5 days)
POOLED PLATELETS	12065	MST changed to 120 hours (5 days)
PLATELET-RICH PLASMA	12301	Removed H1 attribute

Product Type Name	Product Code	Table Changes
Frozen Apheresis PLATELETS	12410	Removed H1 attribute
Apheresis PLATELETS	12610	Removed H1 attribute
Washed Apheresis PLATELETS	12610	Removed H1 attribute
Washed Apheresis PLATELETS	12611	Removed H1 attribute
Apheresis PLATELETS	12710	Removed H1 attribute
Washed Apheresis PLATELETS	12710	Removed H1 attribute
Apheresis PLATELETS	12711	Removed H1 attribute
Washed Apheresis PLATELETS	12711	Removed H1 attribute
Washed Apheresis PLATELETS	12810	Removed H1 attribute
Washed Apheresis PLATELETS	12811	Removed H1 attribute
Frozen RED BLOOD CELLS	14200	Removed B1 attribute
Frozen RED BLOOD CELLS	14240	Removed B1 attribute
Frozen RED BLOOD CELLS	14720	Removed B1 attribute
Frozen RED BLOOD CELLS	14770	Removed B1 attribute
Apheresis GRANULOCYTES	16410	Removed H1 attribute
Apheresis GRANULOCYTES	16411	Removed H1 attribute
Apheresis GRANULOCYTES	16610	Removed H1 attribute
Apheresis GRANULOCYTES-PLATELETS	16710	Removed H1 attribute
Apheresis FRESH FROZEN PLASMA	17211	Removed H1 attribute
Thawed Apheresis FRESH FROZEN PLASMA	17211	Removed H1 attribute
Apheresis FRESH FROZEN PLASMA	17311	Removed H1 attribute
Thawed Apheresis FRESH FROZEN PLASMA	17311	Removed H1 attribute
Apheresis FRESH FROZEN PLASMA	17411	Removed H1 attribute

Product Type Name	Product Code	Table Changes
Thawed Apheresis FRESH FROZEN PLASMA	17411	Removed H1 attribute
Apheresis FRESH FROZEN PLASMA	17611	Removed H1 attribute
Thawed Apheresis FRESH FROZEN PLASMA	17611	Removed H1 attribute
Apheresis FRESH FROZEN PLASMA	18211	Removed H1 attribute
Thawed Apheresis FRESH FROZEN PLASMA	18211	Removed H1 attribute
Apheresis FRESH FROZEN PLASMA	18240	Removed H1 attribute
Thawed Apheresis FRESH FROZEN PLASMA	18240	Removed H1 attribute
Apheresis FRESH FROZEN PLASMA	18251	Removed H1 attribute
Thawed Apheresis FRESH FROZEN PLASMA	18251	Removed H1 attribute
Apheresis FRESH FROZEN PLASMA	18260	Removed H1 attribute
Thawed Apheresis FRESH FROZEN PLASMA	18260	Removed H1 attribute
Apheresis FRESH FROZEN PLASMA	18270	Removed H1 attribute
Thawed Apheresis FRESH FROZEN PLASMA	18270	Removed H1 attribute
Apheresis FRESH FROZEN PLASMA	18280	Removed H1 attribute
Thawed Apheresis FRESH FROZEN PLASMA	18280	Removed H1 attribute
Apheresis FRESH FROZEN PLASMA	18311	Removed H1 attribute
Thawed Apheresis FRESH FROZEN PLASMA	18311	Removed H1 attribute
POOLED PLASMA	18490	Removed J1 attribute
Apheresis FRESH FROZEN PLASMA	18611	Removed H1 attribute
Thawed Apheresis FRESH FROZEN PLASMA	18611	Removed H1 attribute
POOLED PLASMA	19291	Removed J1 attribute
POOLED PLASMA	19591	Removed J1 attribute
Thawed FRESH FROZEN PLASMA	19901	Removed H1 attribute

Product Type Name	Product Code	Table Changes
LEUKOCYTES	20111	Removed H1 attribute
LEUKOCYTES	20211	Removed H1 attribute
LEUKOCYTES	20311	Removed H1 attribute
Washed Apheresis PLATELETS	22011	Removed H1 attribute
Apheresis RED BLOOD CELLS	24011	Removed H1 attribute
Washed Apheresis RED BLOOD CELLS	24011	Removed H1 attribute
Apheresis RED BLOOD CELLS	25011	Removed H1 attribute
Rejuvenated RED BLOOD CELLS	27348	Removed H1 attribute
Rejuvenated RED BLOOD CELLS	27349	Removed H1 attribute
Rejuvenated RED BLOOD CELLS	27350	Removed H1 attribute
Rejuvenated RED BLOOD CELLS	27351	Removed H1 attribute
Rejuvenated RED BLOOD CELLS	27359	Removed H1 attribute
Rejuvenated RED BLOOD CELLS	27360	Removed H1 attribute
Apheresis RED BLOOD CELLS	27361	Removed H1 attribute
Apheresis RED BLOOD CELLS	27362	Removed H1 attribute
Apheresis RED BLOOD CELLS	27394	Removed H1 attribute
Apheresis RED BLOOD CELLS	27397	Removed H1 attribute
Apheresis RED BLOOD CELLS	27399	Removed H1 attribute
Apheresis RED BLOOD CELLS	27407	Removed H1 attribute
Apheresis RED BLOOD CELLS	27410	Removed H1 attribute
Apheresis RED BLOOD CELLS	27416	Removed H1 attribute
Apheresis RED BLOOD CELLS	27420	Removed H1 attribute
Apheresis RED BLOOD CELLS	27422	Removed H1 attribute

Product Type Name	Product Code	Table Changes
Apheresis RED BLOOD CELLS	27424	Removed H1 attribute
Apheresis RED BLOOD CELLS	27426	Removed H1 attribute
Apheresis RED BLOOD CELLS	27428	Removed H1 attribute
Apheresis RED BLOOD CELLS	27432	Removed H1 attribute
Apheresis RED BLOOD CELLS	27433	Removed H1 attribute
Apheresis RED BLOOD CELLS	27434	Removed H1 attribute
Apheresis RED BLOOD CELLS	27436	Removed H1 attribute
Apheresis RED BLOOD CELLS	27438	Removed H1 attribute
Apheresis RED BLOOD CELLS	27443	Removed H1 attribute
Apheresis RED BLOOD CELLS	27446	Removed H1 attribute
Apheresis RED BLOOD CELLS	27450	Removed H1 attribute
Apheresis RED BLOOD CELLS	27452	Removed H1 attribute
Apheresis RED BLOOD CELLS	27456	Removed H1 attribute
Apheresis RED BLOOD CELLS	27458	Removed H1 attribute
Apheresis RED BLOOD CELLS	27462	Removed H1 attribute
Apheresis RED BLOOD CELLS	27463	Removed H1 attribute
Apheresis RED BLOOD CELLS	27466	Removed H1 attribute
Apheresis RED BLOOD CELLS	27468	Removed H1 attribute
Thawed Apheresis FRESH FROZEN PLASMA	27470	Removed H1 attribute
Thawed Apheresis FRESH FROZEN PLASMA	27472	Removed H1 attribute
Thawed Apheresis FRESH FROZEN PLASMA	27474	Removed H1 attribute
Thawed Apheresis FRESH FROZEN PLASMA	27477	Removed H1 attribute
Thawed Apheresis FRESH FROZEN PLASMA	27478	Removed H1 attribute

Product Type Name	Product Code	Table Changes
Thawed Apheresis FRESH FROZEN PLASMA	27479	Removed H1 attribute
Apheresis PLATELETS	27481	Removed H1 attribute
Apheresis PLATELETS	27483	Removed H1 attribute
Apheresis PLATELETS	27492	Removed H1 attribute
Apheresis PLATELETS	27493	Removed H1 attribute
Apheresis PLATELETS	27494	Removed H1 attribute
Apheresis PLATELETS	27495	Removed H1 attribute
Apheresis PLATELETS	27497	Removed H1 attribute
Apheresis PLATELETS	27499	Removed H1 attribute
Apheresis PLATELETS	27519	Removed H1 attribute
Apheresis PLATELETS	27524	Removed H1 attribute
Apheresis PLATELETS	27529	Removed H1 attribute
Apheresis PLATELETS	27530	Removed H1 attribute
Apheresis PLATELETS	27533	Removed H1 attribute
Thawed Apheresis PLATELETS	27536	Removed H1 attribute
Washed Apheresis PLATELETS	27543	Removed H1 attribute
Washed Apheresis PLATELETS	27544	Removed H1 attribute
Washed Apheresis PLATELETS	27545	Removed H1 attribute
Washed Apheresis PLATELETS	27547	Removed H1 attribute
Apheresis GRANULOCYTES	27552	Removed H1 attribute
Apheresis GRANULOCYTES-PLATELETS	27553	Removed H1 attribute
POOLED PLASMA	27556	Removed J1 attribute
Washed Apheresis RED BLOOD CELLS	27560	Removed H1 attribute

Product Type Name	Product Code	Table Changes
Washed Apheresis RED BLOOD CELLS	27571	Removed H1 attribute
Washed Apheresis RED BLOOD CELLS	27576	Removed H1 attribute
Frozen Apheresis RED BLOOD CELLS	27577	Removed H1 attribute
Frozen Apheresis RED BLOOD CELLS	27580	Removed H1 attribute
Thawed CRYOPRECIPITATE	27583	Changed attribute from @81 C2 D2 to @83 C2 D2
Thawed CRYOPRECIPITATE	27584	Changed attribute from @82 C2 to @83 C2
Frozen Apheresis RED BLOOD CELLS	27585	Removed H1 attribute
Thawed POOLED CRYOPRECIPITATE	27586	Removed J1 attribute
Thawed POOLED CRYOPRECIPITATE	27588	Removed J1 attribute
Thawed POOLED CRYOPRECIPITATE	27591	Removed J1 attribute
Thawed POOLED CRYOPRECIPITATE	27593	Removed J1 attribute
Thawed POOLED CRYOPRECIPITATE	27594	Removed J1 attribute
Thawed POOLED CRYOPRECIPITATE	27598	Removed J1 attribute
Thawed POOLED CRYOPRECIPITATE	27601	Removed J1 attribute
Thawed POOLED CRYOPRECIPITATE	27603	Removed J1 attribute
Deglycerolized RED BLOOD CELLS	27628	Removed B1 attribute
Deglycerolized RED BLOOD CELLS	27629	Removed B1 attribute
Deglycerolized RED BLOOD CELLS	27630	Removed B1 attribute
Deglycerolized RED BLOOD CELLS	27631	Removed B1 attribute
Deglycerolized RED BLOOD CELLS	27632	Removed B1 attribute
Deglycerolized RED BLOOD CELLS	27633	Removed B1 attribute
Deglycerolized RED BLOOD CELLS	27634	Removed B1 attribute
Deglycerolized RED BLOOD CELLS	27635	Removed B1 attribute

Product Type Name	Product Code	Table Changes
Thawed CRYOPRECIPITATE	27709	Changed attribute from @BF to @83
Thawed CRYOPRECIPITATE	27710	Changed attribute from @BF C2 to @83 C2

The addition of the retire date to the VBECS blood product code information in Table 3 does not impact use of the product code in the software.

Table 3: Additional ISBT 128 Blood Product Table change details

Product Type Name	Product Code	Table Changes
POOLED PLASMA	E3805	Added Retire Date 2/1/2010
POOLED PLASMA	E3806	Added Retire Date 2/1/2010
POOLED PLASMA	E3807	Added Retire Date 2/1/2010
POOLED PLASMA	E3808	Added Retire Date 2/1/2010
POOLED PLASMA	E3809	Added Retire Date 2/1/2010
POOLED PLASMA	E3810	Added Retire Date 2/1/2010
Apheresis LYMPHOCYTES	E4147	Added Retire Date 5/3/2010
POOLED PLATELETS	E5279	MST changed to 120 hours (5 days)
POOLED PLATELETS	E5280	MST changed to 120 hours (5 days)
POOLED PLATELETS	E5395	MST changed to 120 hours (5 days)
POOLED PLATELETS	E5396	MST changed to 120 hours (5 days)
POOLED PLATELETS	E5411	MST changed to 120 hours (5 days)
POOLED PLATELETS	E5412	MST changed to 120 hours (5 days)
Apheresis FRESH FROZEN PLASMA	E5505	Added Retire Date 2/1/2010
POOLED PLATELETS	E5709	MST changed to 120 hours (5 days)
POOLED PLATELETS	E5710	MST changed to 120 hours (5 days)
POOLED PLATELETS	E5803	MST changed to 120 hours (5 days)
POOLED PLATELETS	E5804	MST changed to 120 hours (5 days)

Product Type Name	Product Code	Table Changes
POOLED PLATELETS	E6001	MST changed to 120 hours (5 days)
POOLED PLATELETS	E6013	MST changed to 120 hours (5 days)
POOLED PLATELETS	E6014	MST changed to 120 hours (5 days)
POOLED PLATELETS	E6016	MST changed to 120 hours (5 days)
POOLED PLATELETS	E6017	MST changed to 120 hours (5 days)
Apheresis FRESH FROZEN PLASMA	E6140	Added Retire Date 2/1/2010
POOLED PLATELETS	E6209	MST changed to 120 hours (5 days)
POOLED PLATELETS	E6210	MST changed to 120 hours (5 days)
POOLED PLATELETS	E6211	MST changed to 120 hours (5 days)
POOLED PLATELETS	E6213	MST changed to 120 hours (5 days)
POOLED PLATELETS	E6338	MST changed to 120 hours (5 days)
POOLED PLATELETS	E6339	MST changed to 120 hours (5 days)
POOLED PLATELETS	E6451	MST changed to 120 hours (5 days)
POOLED PLATELETS	E6452	MST changed to 120 hours (5 days)
POOLED PLATELETS	E6566	MST changed to 120 hours (5 days)
POOLED PLATELETS	E6567	MST changed to 120 hours (5 days)
POOLED PLATELETS	E6568	MST changed to 120 hours (5 days)
POOLED PLATELETS	E6569	MST changed to 120 hours (5 days)
POOLED PLATELETS	E6644	MST changed to 120 hours (5 days)
POOLED PLATELETS	E6645	MST changed to 120 hours (5 days)
POOLED PLATELETS	E6778	MST changed to 120 hours (5 days)
POOLED PLATELETS	E6779	MST changed to 120 hours (5 days)
POOLED PLATELETS	E7149	MST changed to 120 hours (5 days)

Product Type Name	Product Code	Table Changes
POOLED PLATELETS	E7150	MST changed to 120 hours (5 days)
POOLED PLATELETS	E7151	MST changed to 120 hours (5 days)
POOLED PLATELETS	E7152	MST changed to 120 hours (5 days)
POOLED PLATELETS	E7153	MST changed to 120 hours (5 days)

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Appendix C: Locate a VistA Converted Patient Record

From the VistA account Blood Bank menu a user can run a report to find the blood type or test patients.

A user is going to Reports, Patient Antibody Report (Short List), and then defined the report parameters. A sample of the report is included.

```
   D      Donor ...
   I      Inventory ...
   P      Blood bank patient ...
   Q      Inquiries ...
   R      Reports ...
   S      Supervisor ...
   W      Ward Blood Bank Inquiries ...

Select Blood bank Option: R  Reports

   AR     Patient antibody report (short list)
   BR     Blood bank tests report ...
   CT     Unit CAUTION tag labels
             **> Out of order:  out-of-order
   CV     CMV Antibody Status Report
   DR     Donor summary reports ...
   IS     Blood inventory status reports ...
   IT     Blood inventory transaction reports ...
   PL     Patient accession list
   TC     Transfusion reaction count
   TR     Transfusion reactions report
   UP     Phenotyped units available
   UR     Blood utilization & summary reports ...
   VD     Print blood bank validation
   WK     Blood bank workload reports ...

Select Reports Option: AR  Patient antibody report (short list)

                    PRINT CURRENT PATIENT BLOOD BANK RECORDS

The dates asked will be from the BLOOD BANK ACCESSION LIST:
Start with Date TODAY// T-90  (JAN 05, 2011)
Go    to   Date TODAY// Apr 05, 2011

Print only patients with antibodies/special instructions ? YES// N  (NO)

Enter the maximum number of specimens to display
in reverse chronological order for each patient: 1
DEVICE: HOME//   UCX TELNET SESSION

Apr 05, 2011 12:37    VBECS DEVELOPMENT, VISN 99                    Pg: 1
BLOOD BANK PATIENTS from Jan 05, 2011 to Apr 05, 2011
         Patient                 SSN           DOB   ABO Rh
-------------------------------------------------------------------------------
FIFTEEN,VBPATIENT                    000-00-0015    02/05/56   O POS
TRANSFUSION REACTIONS WITHOUT UNIT IDENTIFIED:
Nov 28, 2007         URTICARIA
Accession Number        Date/time       ABO Rh  AHG(D) AHG(I)
    BB 0104 163         01/04/11 13:56

EIGHTY,VBPATIENT                   000-00-0080    05/28/98     A Pos
TRANSFUSION REACTIONS WITHOUT UNIT IDENTIFIED:
Nov 10, 2007         HEMOLYTIC
Accession Number        Date/time       ABO Rh  AHG(D) AHG(I)
    BB 0207 215         02/07/11 13:53
```

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