

VistA Blood Establishment Computer Software (VBECS) Version 1.5.0.0

Release Notes Version 8.0

July 2010

Department of Veterans Affairs

Office of Enterprise Development

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# Revision History

| **Date** | **Revision** | **Description** | **Author** |
| --- | --- | --- | --- |
| 2/2/09 | 1.0 | Initial version. | BBM team |
| 5/14/09 | 2.0 | Changed globally “has been” to “is”.  Rearranged CR/DR to all last sentences of any section. Changed the Footer Date to May 2009.  Added HD0000000315683 to the User Name Entry, Inactivation, and Display section.  Added Enhancements and Modifications, Merge section: CR 2609 and CR 2611.  Added Modification: Thaw section.  Added Patient Name section.  Added Post-Transfusion Data section: CR 2602.  Added Database Conversion section: DR 3392.  Changed name of User Name Entry and Display section to User Name Entry, Inactivation, and Display.  Added VBECS Background Jobs section.  Added Database Integrity Report section.  Added Reference to the AABB Standards, version 25.0.  Appendix A: Added Option: Modification: Thaw and Option: Patient Name.  Edited Appendix C. See Appendix C for the detailed changes.  Removed references to the internal CR and DR numbers that were never included in a reviewed version of the Known Anomalies and Defects document. | BBM team |
| 8/12/09 | 3.0 | Rearranged the Enhancements and Modifications and Untestable System-Level Corrected Code Requests sections into alphabetical order and renumbered the testing scenarios.  Enhancements and Modifications: Changed 1.4.0.0 to 1.5.0.0 if first sentence. Reworded the second and third sentences for clarity.  Added Modification Pool and Thaw/Pool, Test Objective 3 and testing scenarios (CR 2621).  Patient Name section: added information regarding updated reports (CR 2628). Added a note regarding CR 2454.  Added Record Unit Phenotype Testing and Patient Antigen Typing, Test Objective 7 and scenarios (DR 3164, DR 3489).  Added Restricted Unit Details section: The Disease Marker Field on the Restricted for Unit Details tab now displays (CR 2663).  Additional testing scenario suggestion added for CR 2667.  Appendix B, first paragraph changed “are” to “be” in last sentence.  Added to Appendix C: Product Codes E5275, E5304, E5305, E5306, E5307, E5308, E6036, E6141 (DR 3464).  Global: Changed CCBBA to ICCBBA.  Blood Products Table Update: Reworded last sentence of first paragraph and the note.  Invalidate Patient ABID Test: Added Remedy ticket HD 0000000264047.  Database Integrity Report (Success or Failure Message): Rewrote this section and changed the name, it was previously named Database Integrity Report.  All Other Database Jobs Failure Message: Added this new section.  VBECS User Documents: Expanded the VDL acronym in the second paragraph and reworded the third paragraph.  Test Objective 1, Scenario 1: Added REQUIRED SETUP information. Reworded 4th and 6th sentences in Data section. Updated 1st sentence and added 2nd sentence to User section. Updated Step 1 in Steps section for clarity.  Test Objective 1, Scenario 2: Reworded 1st and 2nd sentences in Data section. Updated Step 1 in Data section for clarity. Updated all 3 sentences in Expected Outcome section.  Test Objective 2, Scenario 1: Reworked Data section for clarity. Changed “Antibody tab” to “Antibodies Identified tab” in Steps 1 and 3 of the Steps section. Reworded Step 4 for clarity.  Test Objective 4, Scenario 1: Reworded Step 5 in Steps section for clarity. Added 2 footnotes to Expected Outcome section. Added 2 asterisks to E5621 to indicate it is not currently displaying a THAW target. Reworded second sentence before the table for clarity.  Test Objective 5: Changed name from “Patient Name” to “Select Patient Tool”. Added a note about testing in three options. Scenario 1: Reworded Data, User and Steps sections for clarity. Scenario 2 Steps section: Added “(In CPRS)” to Step 2. Added a new Step 3.  Test Objective 6, Scenario 1: Reworked the Steps section for accuracy. Reworded the Expected Outcome section for clarity.  Test Objective 7, Scenario 3: Removed the second instance of "testing" from Step 2 of Steps.  Revised VBECS User Documents section.  Appendix B Modification Target Unavailable: Added ClearQuest CR number (2587) to first bullet item under “Known problems include”.  Updated Appendix B to include Product Codes and Modification Type table along with a message to file a Remedy ticket if missing targets are discovered that need to be added to the table.  Removed all DR and CR numbers.  Merge section: removed the word “displayed” from the second sentence.  Modification: Pool and Thaw/Pool section: removed the comma at the end of “B (System Integrity),” in the first cell of the table. | BBM Team |
| 10/14/09 | 4.0 | Modification: Pool Thaw/Pool: Reworded second sentence in last column of second and third rows of table for clarity.  Added Select Unit Improved Response Time section.  Appendix A: added Test Objective 8 for CR 2562 (DR 3582).  Appendix B: added E0749, E0752, E0755, E0758, E0761, E0764 (DR 3588). | BBM Team |
| 3/26/10 | 5.0 | Changed the footer date to April 2010, and the version number to 5.0.  Patient ABO/Rh Testing: Updated the section (CR 2781).  Electronic Crossmatch: Added explanatory text after the described changes (DR 3682).  Multidivisional Printer Section: Added to the NOTE: The VBECS administrator must inactivate the division GHOST as a closing action of the patch installation in Production so it no longer displays to the user. See Appendix A: Examples of Test Scenarios Test Objective 10.  Appendix A: Test Objective 5: Changed “as described” to “as described and allowed by your VistA environment”.  Appendix A: Test Objective 9: Added “Alternately, repeat the scenario for Rh interpretation”.  Appendix A: Added Test Objective 10.  Appendix B: Added a 4th work around to create and maintain a local policy and procedure for a mapping table between the product code that cannot be modified as there is no target and one that can be modified and provide a target (DR 3728).  VBECS User Documents: Corrected the second sentence to read: “Obtain VBECS documents by retrieving the updated guides from the VistA Documentation Library (VDL):” | BBM Team |
| 5/19/10 | 6.0 | References section: Updated AABB Standards and Codabar product code product label codes citations.  Appendix A: Test Objective 9: Revised Scenario 2 to test previous VBECS ABO/Rh test as historic record and added Scenario 3 to test a VistA Converted ABO/Rh historic Record, noting CR 2789, and CR 2801. | BBM Team |
| 6/08/10 | 7.0 | Changed the Footer Date to June 2010 and the version number to 7.0.  Appendix A: Test Objective 9: Scenario 3, Steps and Expected Outcome: Removed “CR 2801”. | BBM Team |
| 7/14/10 | 8.0 | Changed the footer date to July 2010 and version number to 8.0.  Related Manuals and Materials, VBECS User Documents: Added anonymous FTP package name VBECS\_1\_5\_DOCS\_BUNDLE.zip. | BBM Team |

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# Introduction

*VistA Blood Establishment Computer Software (VBECS) Version 1.5.0.0 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 1.4.0.0 software. Some items correspond to items in the Known Defects and Anomalies and have been removed from the version released with VBECS 1.5.0.0. Some corrections have a corresponding test objective in Appendix A: Examples of Test Scenarios.

### Blood Product Table Update

The VBECS blood product table is updated with ICCBBA blood product codes E5825 through and including E6155. One Codabar blood product code (04780) is also included in this update. Detailed information about these updates can be obtained on the ICCBBA website or users can navigate in VBECS using the Tools menu and Blood Products option to view the product codes.

The VBECS blood product table also contains edits to existing product code entries correcting maximum storage time and volumes. See Appendix C: Additional Blood Product Table Changes for details.

Local validation of changes that impact the facility is recommended.

***Note:*** *All product codes listed in the blood product table can be entered into VBECS via Incoming Shipment, but not all may have targets when modified. Refer to* Appendix B: Modification Target Unavailable *for suggested workarounds if your site receives a blood product that does not have a target for modification.*

### Electronic Crossmatch

When the electronic crossmatch functionality is enabled and database conversion antibody specificity is contained in a patient’s VBECS Transfusion Requirements record, the patient is now **ineligible** for electronic crossmatch as required (Remedy Ticket HD0000000269914).

See Appendix A: Examples of Test Scenarios Test Objective 1.

VBECS includes an optional electronic or computer crossmatch (eXM) function. The system’s decision table and error messages are detailed in the VBECS User Guide, Table 23: TT\_3.05 Rules for Electronic and Serologic Crossmatch.

The following documents are relevant to your local risk assessment as you evaluate the use of this option at your facility. These are also relevant to determining the appropriate use of this option as defined by local policy and procedure. The electronic crossmatch is offered to the user when enabled, and the patient/unit match is eligible. The electronic crossmatch is not automatically performed. The user must decide whether or not to perform an electronic crossmatch for each patient specimen and the associated selected units.

* CAP Transfusion Medicine Checklist, 2007
* FDA Draft Guidance for Industry: “Computer Crossmatch” (Electronic Based Testing for the Compatibility between the Donor’s Cell Type and the Recipient’s Serum or Plasma Type) (2007)
* *Guidelines for Implementing the Electronic Crossmatch* (Bethesda, MD: American Association of Blood Banks, 2003

Table 23 in the User Guide lists the various parameters checked and evaluated, failing any one of these will result in ineligibility for a patient specimen and its selected blood units. Some conditions will disallow electronic crossmatch eligibility permanently, some only for the current specimen. The message displays in Select Unit in the lower right hand area of the window. When the patient is eligible, that too displays.

| **Parameter Checked by VBECS** | **Clarifying statements** |
| --- | --- |
| Current specimen ABO/Rh and Antibody Screen testing must be complete. | The TAS (ABO/Rh and ABS) must be completed prior to selecting any units for the current specimen UID associated with the component order. |
| Current specimen Antibody Screen interpretation must be negative. VBECS checks only the last Antibody Screen entered. | The TAS ABS test on the current specimen associated with the component order must be negative. VBECS does NOT check any prior ABS tests results. |
| Patient must have no history of previously identified antibodies, regardless of clinical significance based on system rules TT\_23.01or division (or from conversion) of the antibody ID. | The patient must not have a **clinically significant** antibody specificity in their file entered by database conversion, ABID test or Antibodies Identified (Patients, Special Instructions and Transfusion Requirements) per the various regulatory and accrediting agencies. VBECS disallows eXM when ANY antibody specificity is associated with the patient. |
| Patient cannot have a persistent antigen negative requirement regardless of the division of the requirement entry. | The patient may not have any antigen negative requirements entered (Patients, Special Instructions and Transfusion Requirements) |
| The patient’s current ABO/Rh must match the historical record; there must be no previous justifications. An ABO/Rh marked “entered in error” is not considered part of the patient’s record. | The patient must not have a justified ABO/Rh typing result.  The patient must not have an unresolved ABO/Rh discrepancy.  Invalidated patient ABO/Rh tests are not evaluated. |
| The patient cannot have a documented instance of current or previous serologic problems, such as a valid Inconclusive ABO/Rh typing. | The patient ABO/Rh typing cannot have an interpretation of Inconclusive for either the ABO or Rh test on the current specimen or past specimen.  Generally this will involve the current and one previous as the system will not allow a 3rd test when there is an ABO/Rh discrepancy in place. |
| There must be at least two valid instances of ABO/Rh typing performed in the same division for the patient. One instance must be a valid ABO/Rh on the current specimen and not “unknown” or “inconclusive”; the other may be from a previous typing episode or a repeat ABO/Rh performed on the current specimen. The patient ABO/Rh interpretations must match in all instances. The user must enter valid forward and reverse typing for the system to use as the second test performed in the division. | The patient must have two normal, valid ABO/Rh typings performed in the same division that are the same.  The reflex ABO/Rh test may be one of these tests which is why the reflex test requires entry of a full test, not an abbreviated test.  Valid typings from other divisions in a multidivisional database cannot be used as one of the valid typings for electronic crossmatch in any one division, but are used in ABO/Rh discrepancy determination in all divisions. |
| Selected unit must be ABO compatible based on system rulesTT\_3.01 or TT\_3.02. | ABO compatible units are only allowed for selection based on system rules.  If ABO incompatible units are allowed for selection they will require a serologic crossmatch. This generally applies to OTHER component class products that may require crossmatch due to RBC contamination. |
| Selected Rh negative units must have ABO and Rh confirmation results entered. The ABO and Rh confirmation interpretation must match the unit ABO/Rh at login. | Unit confirmation testing must be complete and match the unit login information. |
| Selected Rh positive units must have ABO confirmation results entered. The ABO confirmation interpretation must match the unit ABO at login. | Unit confirmation testing must be complete and match the unit login information. |

### Invalidate Patient ABID Test

Invalidation of a patient antibody identification test (ABID) with a specificity that never has an antigen negative requirement now triggers the removal of the antibody in Special Instructions and Transfusion Requirements (Remedy tickets HD 0000000264341 and HD 0000000264047).

See Appendix A: Examples of Test Scenarios Test Objective 2.

### Merge

The Patient Merge window cannot be resized to hide patient information. The redundant display of the controls after clicking the Close button is removed.

Local validation is recommended of the changes described in this section. No examples of possible test scenarios are included as the validation is self-explanatory.

### Modification: Pool and Thaw/Pool

The internal system calculation, that provides a target for modification types that allow the pooling of multiple original products to one target, considers the ICCBBA attribute forms B (System Integrity), C (Irradiation) and D (Residual Leukocyte Content) and does not consider the E (Altered) attribute forms as found on an original blood unit added to a pool.

| **ICCBBA Attribute Form Type** | **Examples** | **Selecting a target pool product code** |
| --- | --- | --- |
| B (System Integrity) | Open or Closed | If any one original is open, the target pool is open. \* |
| C (Irradiation) | Irradiated or not irradiated | All originals must be irradiated for the target to be irradiated. When any one original in a pool is NOT irradiated, the system selects a non-irradiated target. |
| D (Residual Leukocyte Content) | Not leukocyte reduced or leukocyte reduced | All originals must be leukocyte reduced for the target to be leukocyte reduced. When any one original in a pool is NOT leukocyte reduced, the system selects a non-leukocyte reduced target. |
| E (Altered) | Albumin added Plts/Cryo reduced  Cryo reduced Supernat reduced  Plasma added Supernat rem  Plasma reduced Buffy coat removed  Plts reduced  Plasma reduced/Albumin added  RBC reduced by sedimentation  Plasma reduced/Plasma added  Supernat rem/Plasma added  Complement Inactivated | Altered processing information as listed is not used for the selection of a pooled target when present on any or all of the original products. |

\*When pooling with a Sterile Connecting Device (SCD), all originals must be closed prior to the pool and the weld must be successful and complete.

See Appendix A: Examples of Test Scenarios Test Objective 3.

### Modification: Thaw

The calculated expiration date, displayed when a single unit of pooled cryoprecipitate is modified using the THAW modification method, is now four (4) hours (Remedy ticket HD0000000319051).

See Appendix A: Examples of Test Scenarios Test Objective 4.

### Multidivisional Reports

A default report printer is defined for each division within a multidivisional configuration (Remedy ticket HD 0000000268596).

NOTE: The VBECS administrator must inactivate the division GHOST as a closing action of the patch installation in Production so it no longer displays to the user.

See Appendix A: Examples of Test Scenarios Test Objective 10.

### Patient Name

VBECS does not allow for the selection or order placement of a patient that may have a blank first or last name. VBECS accepts orders and selection of a patient name per VistA standard conventions where it meets the conditions of a thirty (30) character first name, last name or middle name with a maximum full name of thirty (30) characters, including a comma between the last and first names and a space when a middle name or initial is included. A message displays to the user when either the first or last name is blank or any name (first, middle, last, or full) exceeds thirty (30) characters. VBECS does not retrieve prefixes and suffixes with the data conversion or support/display them in VistA. A patient name will display all 30 characters in the Patient Search Field as seen in the various patient searches in options. Various reports have been formatted to display the full 30-character name, the Testing Worklist Report, Exception Report, Patient Transfusion Requirements Report, and Patient History Report.

Note: The BTRF and Caution tag continue to display fewer than 30 characters depending on their width.

See Appendix A: Examples of Test Scenarios Test Objective 5.

### Patient ABO/RhTesting

The patient ABO test and Rh test interpretations are required to be saved together where previously either may have been saved without the other.

See Appendix A: Examples of Test Scenarios Test Objective 9.

### Patient Medication Profile

The Patient Medication Profile report is available via the menu option and patient tool bar shortcut button.

Local validation is recommended of the changes described in this section. No examples of possible test scenarios are included as the validation is self-explanatory.

### Post-Transfusion Data

Tool tips display when activated by hovering over the disabled ok button. An edited transfusion start date saves and redisplays. All Date/time displays meet the GUI Standard of a single digit month, days, and hours and have a leading zero.

Local validation is recommended of the changes described in this section. No examples of possible test scenarios are included as the validation is self-explanatory.

### Print Blood Transfusion Record Form

The Blood Transfusion Record Form (BTRF) prints when the patient has an antibody that never has an antigen negative requirement in their Transfusion Requirements record (Remedy ticket HD 0000000264341).

See Appendix A: Examples of Test Scenarios Test Objective 6.

### Online Help

VBECS Online Help is updated with the limitations below.

Limitation added to the Incoming Shipment section, fifth bullet under Limitations and Restrictions; *“The display label that is built when logging a blood product into VBECS does not change volunteer donor to autologous when the donation type is changed.”*

Limitation added to the Post-Transfusion Information section, Limitations and Restrictions; *“VBECS cannot update a unit record to presumed transfused when a user has that unit record open (locked) in Enter Post Transfusion Information. VBECS will attempt to update the unit the next time the presumed transfused background routine runs if the unit remains in an issued status.”*

Local validation is recommended of the changes described in this section. No examples of possible test scenarios are included as the validation is self-explanatory.

### Restricted Unit Details

The Disease Marker Field on the Restricted for Unit Details tab in the Unit Selection window used throughout the application now displays an autologous unit’s disease marker test information.

Local validation is recommended of the changes described in this section. No examples of possible test scenarios are included as the validation is self-explanatory.

### Record Unit Phenotyping and Patient Antigen Typing

The antigen typing test truth tables are updated correcting the system response to the patterns in the specific testing phase selection:

* IS/RT with IS results entered as not tested (X) and RT results entered as positive (P) with a P interpretation,
* IS/RT with IS results entered as positive (P) and RT results entered as not tested (X) with a P interpretation,
* IS/37 with results entered as not tested (X) and 37 results entered as positive (P) with a P interpretation.

The ability to enter reactions or interpretations for antigen typing tests other than weak D as “inconclusive” are removed. The following reaction results have been changed from inconclusive to positive when entered in the antigen typing options: “W,” which the computer interprets as Weak, “F,” which the computer interprets as Mixed Field, and “M,” which the computer interprets as Microscopic. Reaction results and interpretations are positive or negative, with the exception of weak D typing for both unit and patient antigen typing tests.

See Appendix A: Examples of Test Scenarios Test Objective 7.

### Select Unit Improved Response Time

System response time improved when one or more users select multiple units for the same patient.

See Appendix A: Examples of Test Scenarios Test Objective 8.

# Untestable System-Level Corrected Code Requests

This section includes changes that may be testable by VBECS system administrators, but not directly by functionality available in VBECS options.

### Automated VBECS Patch Process and Improved Server Cluster Awareness

The VBECS patch installation process is automated. This includes the addition of the success record to the version table. The servers and services have improved cluster awareness and will restart automatically after a failover event.

No examples of test scenarios are included. Documentation of a successful download of this patch is evidence of the success of the automated process.

### Database Conversion

Database Conversion displays warnings at various points to prevent an inadvertent repetition of the database conversion on an in-use database.

No examples of test scenarios are included.

### Database Integrity Report (Success or Failure Message*)*

When a database weekly integrity job completes successfully or fails, an email with DatabaseIntegrityReport.Log as an attachment is sent to all “email recipients” listed as the Interface Failure Alert Recipient. Also the Database Integrity Report Log is written to the Windows Application Event Log and a copy is saved at this location D:\Program Files\Microsoft SQL Server\MSSQL\BACKUP\<database> folder, [<database> is the VBECS environment in question (e.g., VBECS\_V1\_PROD, VBECS\_V1\_PROD\_MIRROR)]. The log details the current status of tables in the database; it concludes with a message indicating the overall integrity: “CHECKDB found 0 allocation errors and 0 consistency errors in database <database>.”

**All Other Database Jobs Failure Messages**

When any of the other Database Background Jobs fail, an email is sent to all “email recipients” listed as the Interface Failure Alert Recipient.  If the recipients receive no email message, the most probable cause is SMTP server port number 25 is blocked. Failure messages are stored in the user accessible table (VBECSJobMailFailure) in the master database. Contact your local Systems Administrator to unblock the port.

### Merge

This change will require validation only at those sites where the patient DFN is greater than ten digits. The merge option accepts a merge message for a patient with a DFN greater than ten digits. Incorrect error messages no longer display.

Local validation is recommended using a patient with an extended DFN. No examples of test scenarios are included.

### User Name Entry, Inactivation, and Display

VBECS does not allow use of a duplicated DUZ for VBECS user name change (Remedy Ticket HD0000000315683).

A confirmation message displays when the administrator activates or inactivates a VBECS user through the List View in VBECS Administrator Edit Users.

VBECS now displays the user’s complete first name throughout the application when the user’s ID is incorrectly entered in Active Directory.

Local validation is recommended. No examples of test scenarios are included.

### Message Log Purges

VBECS Administrator allows local configuration of the Message Log purge cycle. The Message Log will purge messages as specified locally in VBECS Administrator.

Local validation is recommended. No examples of test scenarios are included.

### Redesign of the VBECS Manufacture and Distribution Process

The VBECS distribution process by CD copy is revised to deliver this release and subsequent patches by File Transfer Protocol (FTP) site download.

No examples of test scenarios are included.

### VBECS Background Jobs

A detailed listing of all VBECS background jobs on each database is included in the VBECS Technical Manual-Security Guide.

No examples of test scenarios are included.

### VBECS Workload

Redundant VBECS workload data generated in VBECS production mirror accounts is cleared upon patch installation, and redundant VBECS workload data no longer generates. This problem did not have any impact on the VistA workload reports and was limited to VBECS internal workload data storage.

No examples of test scenarios are included.

# VistA Software Dependencies

There are no new VistA software dependencies for this patch.

# Related Manuals and Materials

## 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) 1.5.0.0 Patch Installation Guide*
* *VistA Blood Establishment Computer Software* (*VBECS) 1.5.0.0 User Guide*
* *VistA Blood Establishment Computer Software (VBECS) 1.5.0.0 Technical Manual-Security* *Guide*
* *VistA Blood Establishment Computer Software (VBECS) 1.5.0.0 Release Notes*
* *VistA Blood Establishment Computer Software (VBECS) Known Defects and Anomalies*

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](ftp://ftp.fo-albany.med.va.gov)

       Hines                   [ftp.fo-hines.med.va.gov](ftp://ftp.fo-hines.med.va.gov)

       Salt Lake City          [ftp.fo-slc.med.va.gov](ftp://ftp.fo-slc.med.va.gov)

File Name Retrieval format

VBECS\_1\_5\_DOCS\_BUNDLE.ZIP BINARY

The VBECS\_1\_5\_DOCS\_BUNDLE.ZIP file needs to be extracted on your system for use.

## Customer Support

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 of 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: REDACTED (VHA Enterprise Management Center)
* Email: REDACTED.

#### References

* AABB Standards for Blood Banks and Transfusion Services, 26th edition, November 2009.
* AABB Complete List of Codabar Product Label Codes, December 2008.
* **ICCBBA**, Pro**duct Description Database:** Version 3.15.0, 1 JUNE 2008, Version 3.16.0, 1 JULY 2008, Version 3.17.0, 1 AUGUST 2008, Version 3.18.0, 1 SEPTEMBER 2008, and Version 3.19.0, 1 OCTOBER 2008.

# Appendices

## Appendix A: Examples of Test Scenarios

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

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

#### Test Scenarios by Function

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

| **Option: Select Units** | |
| --- | --- |
| **Test Objective 1):** When a database conversion antibody specificity is contained in a patient’s VBECS Transfusion Requirements record, the patient is not eligible for electronic crossmatch.  **REQUIRED SETUP:** *The electronic crossmatch option must be enabled to perform this objective. This objective does not fully validate the option; please ensure that you have fully validated for electronic crossmatch functionality.* | |
| **Scenario 1:** Verify that a patient with a history of an irregular antibody database conversion is not eligible for electronic crossmatch. | |
| **Data** | Select a Patient (#1) with an antibody specificity entered in VBECS via database conversion that creates an antigen negative requirement.  Place a CPRS Order for a TAS and RBC.  Complete the TAS order in VBECS.  Make sure that the antibody screen test (ABS) for this specimen is negative and completed. (When the ABS interpretation positive, the message changes.)  Make sure there are two previously filed ABO/RH typing results on file for the patient, including this specimen.  Ensure that the only disqualifier to electronic crossmatch for this patient is the antibody added by database conversion. |
| **User** | No specific user role is required to execute the scenario.  An administrator supervisor must have previously enabled the electronic crossmatch option. |
| **Steps** | 1. Select the patient in the Blood Units, Select Unit option. Click Add Units. 2. Verify that the eXM status message appears stating that the patient is not eligible for electronic crossmatch due to a history of irregular antibodies (Patient not eligible for eXM due to a previous antibody history.) |
| **Expected Outcome** | The electronic crossmatch message in Select Unit states that the patient is not eligible for electronic crossmatch due to a history of irregular antibodies. |
| **Scenario 2:** Verify that a patient with an antibody specificity added by database conversion requires serologic crossmatch of a red blood cell (or whole blood) unit. | |
| **Data** | Using Patient #1 and the previously entered RBC order, select a red cell product that is available (ABO/Rh confirmation is complete) and satisfies the patient’s antigen negative requirement.  Ensure that the only disqualifier to electronic crossmatch for this patient and unit is the antibody added by database conversion. |
| **User** | No specific user role is required. |
| **Steps** | 1. Go to Blood Units, Select Unit. Add the unit to the RBC order. Click OK to exit the Select Unit option. 2. The system displays a message offering serologic crossmatch. Click OK. 3. The testing details window displays. Complete it according to local procedure. Click OK. 4. The crossmatch test grid for the select unit(s) is displayed for data entry. |
| **Expected Outcome** | The eXM status message may change as the unit is selected, but **never** states that the unit or patient is eligible for electronic crossmatch.  The system does **not** display the pop up message offering electronic crossmatch.  The system **does require** and/or allow serologic crossmatch of the unit(s). |

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| **Option: Invalidate Patient Testing** | |
| **Test Objective 2):** Verify that invalidating an ABID test also removes the antibody as an active antibody identified, specifically when that antibody specificity never creates an antigen negative requirement. | |
| **Scenario 1:** Create and invalidate an ABID test where an antibody with no possible antigen negative requirement was entered in the ABID test. The list is limited to: *Anti-I, Anti-i , Warm auto-antibody, Cold auto-antibody, HTLA (probable), Antibody to Low-Incidence Antigen, Antibody to High-Incidence Antigen.* | |
| **Data** | Select a patient (#3).  Place a CPRS Order for a TAS and RBC.  Order a reflex ABID test in VBECS while completing the TAS or directly from the Orders, Order Reflex Test option.  Complete the TAS order in VBECS.  Make sure that the antibody screen test for this specimen is complete (it may be positive or negative).  Complete the ABID test by selecting one of the antibody specificities listed in Test Objective 2 Scenario 1. |
| **User** | No specific user role is required. |
| **Steps** | 1. Patients, Special Instructions and Transfusion Requirements: Verify that the antibody specificity entered in the ABID test displays on the Antibodies Identified tab. 2. Select Patients, Invalidate Test Results: Select the patient’s ABID test and invalidate it. (*You may choose to add it back to the PTL for use in repeats of this scenario with different specificities. If you choose to rerun this scenario with a different patient, you will need to place new orders.)* 3. Verify that the antibody specificity no longer displays on the Antibodies Identified tab in Special Instructions and Transfusion Requirements. 4. Verify that the antibody specificity no longer displays when the patient is selected for the Recent Orders or any other option where a patient is selected. It will display in Patients, Special Instructions and Transfusion Requirements, Antibodies Identified tab if the Show Inactive Antibodies Identified checkbox is checked. |
| **Expected Outcome** | The antibody specificity is no longer active in the patient’s record. |
| **Option: Modification: Pool and Thaw/Pool** | |
| **Test Objective 3):** Verify that the pooling of units with different ICCBBA attribute forms B (System Integrity), C (Irradiation) and D (Residual Leukocyte Content) and E (Altered) displays the correct target for selection. | |
| **Scenario 1:** Verify that a pooled product from a combination of original products that have different B, C, D, and E displays the correct target for selection. | |
| **Data** | Multiple units of platelets, apheresis platelets, cryoprecipitate, or apheresis cryoprecipitate available for modification with the following attribute forms conditions:   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Unit # | Integrity\* | Irradiated | Leukoreduced | Altered | | 1 | Closed | no | no | no | | 2 | Closed | no | no | yes | | 3 | Closed | no | yes | no | | 4 | Closed | no | yes | yes | | 5 | Closed | yes | no | no | | 6 | Closed | yes | no | yes | | 7 | Closed | yes | yes | no | | 8 | Closed | yes | yes | yes | | 9 | Open | no | no | no | | 10 | Open | no | no | yes | | 11 | Open | no | yes | no | | 12 | Open | no | yes | yes | | 13 | Open | yes | no | no | | 14 | Open | yes | no | yes | | 15 | Open | yes | yes | no | | 16 | Open | yes | yes | yes |  * Test using a sterile connecting device, if applicable. |
| **User** | No specific user role is required. |
| **Steps** | 1. Pool the units by various combinations to display a target. 2. Do not complete the modification if you wish to use the units repeatedly. If you save the pool, then you will have to enter multiple units of each condition above to test the various combinations of attribute forms. |
| **Expected Outcome** | * Leukocyte reduced target product codes display only when all original units selected for the pool were leukocyte reduced. * Irradiated target product codes display only when all original units selected for the pool were marked irradiated. * Target product codes do not indicate any alteration regardless the status of the original units selected for the pool. * Target products are OPEN if any one original unit selected for the pool was open, even when using a sterile connecting device. |

| **Option: Modification: Thaw** | |
| --- | --- |
| **Test Objective 4):** Verify that the calculated expiration date displayed when a single unit of pooled cryoprecipitate is modified using the THAW modification method is now four (4) hours. | |
| **Scenario 1:** Create thawed pooled cryoprecipitate and verify that the calculated expiration date/time displayed is four (4) hours after the selected modification time. | |
| **Data** | Enter a blood unit for each of the following product codes in a FROZEN state with an expiration date/time that is at minimum 24 hours in the future to avoid confusion of the calculated times.  This is a list of all current original frozen pooled cryoprecipitate product codes.   |  |  |  | | --- | --- | --- | | 10191 | | CRYOPRECIPITATED AHF POOLED | | 10291 | | CRYOPRECIPITATED AHF POOLED IRRADIATED | | 11191 | | CRYOPRECIPITATED AHF POOLED DONOR RETESTED | | 11291 | | CRYOPRECIPITATED AHF POOLED IRRADIATED DONOR RETESTED | | E3587 | POOLED CRYOPRECIPITATE|None/XX/<=-18C | | | E3588 | POOLED CRYOPRECIPITATE|None/XX/<=-18C|Open | | | E3589 | POOLED CRYOPRECIPITATE|None/XX/<=-18C|Open|Irradiated | | | E3590 | POOLED CRYOPRECIPITATE|None/XX/<=-18C|Irradiated | | | E5621\*\* | POOLED CRYOPRECIPITATE|None/XX/<=-18C|From 5 donors\* | | | E5687\*\* | POOLED CRYOPRECIPITATE|None/XX/<-30C|ResLeu:<1log6|Quar:>=90d/retested | | | E3583\*\* | POOLED CRYOPRECIPITATE|None/XX/<-30C | | | E3584\*\* | POOLED CRYOPRECIPITATE|None/XX/<-30C|Open | | | E3585\*\* | POOLED CRYOPRECIPITATE|None/XX/<-30C|Open|Irradiated | | | E3586\*\* | POOLED CRYOPRECIPITATE|None/XX/<-30C|Irradiated | | | \*\* indicates that these product codes are not currently displaying a THAW target. | | | |
| **User** | No specific user role is required. |
| **Steps** | 1. Enter a shipment of pooled cryoprecipitate including all product codes used by your local supplier. Optionally, the shipment may include all product codes as listed above. 2. Go to Blood Units, Modify Units, and select THAW modification type. 3. Select the pooled cryoprecipitate units entered above. 4. Execute the modification in batch. 5. Verify that the expiration time is set to 4 hours from the modification time for each target unit. |
| **Expected Outcome** | The expiration time presented for each thawed pooled cryoprecipitate unit is four (4) hours, which is the modification time. The possible target product codes are listed below.   |  |  | | --- | --- | | 10191 | Thawed CRYOPRECIPITATED AHF POOLED | | 10291 | Thawed CRYOPRECIPITATED AHF POOLED IRRADIATED | | 11191 | Thawed CRYOPRECIPITATED AHF POOLED DONOR RETESTED | | 11291 | Thawed CRYOPRECIPITATED AHF POOLED IRRADIATED DONOR RETESTED | | 27628**L** | Thawed POOLED CRYOPRECIPITATE|None/XX/rt | | 27629**L** | Thawed POOLED CRYOPRECIPITATE|None/XX/rt|Irradiated | | 27630**L** | Thawed POOLED CRYOPRECIPITATE|None/XX/rt|ResLeu:NS | | 27631**L** | Thawed POOLED CRYOPRECIPITATE|None/XX/rt|Irradiated|ResLeu:NS | | 27632**L** | Thawed POOLED CRYOPRECIPITATE|NS/XX/rt | | 27633**L** | Thawed POOLED CRYOPRECIPITATE|NS/XX/rt|Irradiated | | 27634**L** | Thawed POOLED CRYOPRECIPITATE|NS/XX/rt|ResLeu:NS | | 27635**L** | Thawed POOLED CRYOPRECIPITATE|NS/XX/rt|Irradiated|ResLeu:NS | | 27645**L** | Thawed POOLED CRYOPRECIPITATE | | E3591 | Thawed POOLED CRYOPRECIPITATE|None/XX/rt | | E3592 | Thawed POOLED CRYOPRECIPITATE|None/XX/rt|Open | | E3593 | Thawed POOLED CRYOPRECIPITATE|None/XX/rt|Open|Irradiated | | E3594 | Thawed POOLED CRYOPRECIPITATE|None/XX/rt|Irradiated | | E5284 | Thawed POOLED CRYOPRECIPITATE|NS/XX/rt|Open | | E5599 | Thawed POOLED CRYOPRECIPITATE|NS/XX/rt|Open|From 2 donors | | E5600 | Thawed POOLED CRYOPRECIPITATE|NS/XX/rt|Open|From 3 donors | | E5601^ | Thawed POOLED CRYOPRECIPITATE|NS/XX/rt|Open|From 4 donors\* | | E5602^ | Thawed POOLED CRYOPRECIPITATE|NS/XX/rt|Open|From 5 donors | | E5603 | Thawed POOLED CRYOPRECIPITATE|NS/XX/rt|Open|From 6 donors | | E5604^ | Thawed POOLED CRYOPRECIPITATE|NS/XX/rt|Open|From 7 donors\* | | E5605^ | Thawed POOLED CRYOPRECIPITATE|NS/XX/rt|Open|From 8 donors\* | | E5606^ | Thawed POOLED CRYOPRECIPITATE|NS/XX/rt|Open|From 9 donors\* | | E5607 | Thawed POOLED CRYOPRECIPITATE|NS/XX/rt|Open|From 10 donors\* | | E5821 | Thawed POOLED CRYOPRECIPITATE|NS/XX/rt | | E6000 | Thawed POOLED CRYOPRECIPITATE|NS/XX/rt|Open|Irradiated | | \*There are no original product codes to provide targets for E5599, E5600, E5603 and E5607.  **L**The product codes are exclusive to VBECS as Local Codabar product codes and may or may not display as a target**.**  ^ The product code does not display as a target in THAW modification but may be entered into VBECS via Incoming Shipment. | | |

| **Option: Select Patient Tool** | |
| --- | --- |
| **Test Objective 5):** Verify that a VistA patient with an improperly formatted name (as described and allowed by your VistA environment) is not processed in VBECS.  Note: This is tested in three options due to the nature of the patient search, Incoming Shipment, Edit Unit Information, and Document ABO Incompatible Transfusion. | |
| **Scenario 1:** Verify that a VistA patient with an improperly formatted name (as described) is NOT selectable for unit restriction in Incoming Shipment, Edit Unit Information, and Document ABO Incompatible Transfusion. | |
| **Data** | Seven VistA patients with the following characteristics.   1. A VistA patient with NO first name. 2. A VistA patient with NO last name. 3. A VistA patient with a first name that is 31 or more characters. 4. A VistA patient with a last name that is 31 or more characters. 5. A VistA patient with a middle name that is 31 or more characters. 6. A VistA patient with a FULL name that is 31 or more characters long, including comma and space with a middle name. 7. A VistA patient with a FULL name that is 31 or more characters long, including comma without a middle name. |
| **User** | No specific user role is required when tested using Incoming Shipment option as described in Step 2.  An Enhanced Technologist is required when tested using Edit Unit Information as described in Step 4.  A Traditional Supervisor or above when tested using Document ABO Incompatible Transfusion as described in Step 5. |
| **Steps** | 1. Create the seven (7) test patients listed in the Data section of this objective in VISTA. 2. Incoming Shipment: Attempt to select each test patient as the “Restricted For Patient” for an autologous unit of any product type during an Incoming Shipment. 3. Restrict the unit to any VBECS patient already in the database. 4. Edit Unit Information: Attempt to change the “Restricted For Patient” to each of the seven test patients. 5. Document ABO Incompatible Transfusion: Attempt to select each of the seven test patients. |
| **Expected Outcome** | The seven test patients may not be selected in any of the options. |
| **Scenario 2:** VBECS rejects CPRS orders when the patient name exceeds the acceptable conditions. | |
| **Data** | Use the seven (7) test patients entered in Scenario 1. |
| **User** | No specific user role is required. |
| **Steps** | 1. Create a VBECS diagnostic test and/or blood product order for each of the seven test patients. 2. Verify the rejection of the CPRS orders by VBECS. (In CPRS). 3. In VBECS, go to Orders, Accept Orders. Verify the orders are not listed in the Pending Order List. |
| **Expected Outcome** | The seven test patient orders are not processed by VBECS. |

| **Option: Print Caution Tag and Blood Transfusion Record form (BTRF)** | |
| --- | --- |
| **Test Objective 6):** Successfully print a BTRF without incident when an irregular antibody is listed that never has an antigen negative requirement. | |
| **Scenario 1:** Verify that an antibody specificity that cannot and may not have an antigen requirement in a patient record allows the BTRF to print. This is limited to: *Anti-A; Anti-B; Anti-I; Anti-i; Anti-I(int); Anti-LW; Anti-Lu; Anti-Le, other; Anti-N, other; Anti-M, other; Anti-rhesus, other; Antibody to Low-Incidence Antigen; Anti-rhesus; NOS; Antibody to High-Incidence Antigen; Cold auto-antibody; HTLA (probable); Warm auto-antibody; Antibody, No Specificity Identified*. | |
| **Data** | Select a patient (#2) with one antibody specificity active in their VBECS record. The antibody must be one listed in the Test Objective 2 Scenario 1. The antibody may exist by any valid VBECS entry method or database conversion.  Place a CPRS Order for a TAS and RBC.  Complete the TAS order in VBECS.  Make sure that the antibody screen test for this specimen is complete (it may be positive or negative).  Select a red cell product that is available (ABO/Rh confirmation is complete) and is otherwise acceptable for any of the patient’s other requirements. |
| **User** | No specific user role is required. |
| **Steps** | 1. Go to Blood Units, Select unit. Add the unit to the RBC order. Click OK to select the unit. Verify that the override is not required for the specificity. 2. Complete the crossmatch serologic crossmatch test. 3. Print the BTRF. |
| **Expected Outcome** | The BTRF prints. No antigen information is printed on the BTRF. |

| **Option: Record Phenotype Testing and Patient Antigen Typing** | |
| --- | --- |
| **Test Objective 7):** Demonstrate that the updated reaction result combinations result in the expected system response.  **Note:** Using multiple units allows you to enter all the varied patterns for a single screen shot, alternately you may clear the grid and use the same unit repeatedly to verify the data entry patterns. | |
| **Scenario 1:** Verify that the system does not allow the entry of an inconclusive interpretation for any antigen testing (reagent type) other than weak D. | |
| **Data** | Enter at minimum one unit of Rh Negative red blood cells, apheresis red blood cells or whole blood, any valid activated product code, limited or available. |
| **User** | No specific user role is required. |
| **Steps** | 1. Create a worklist with at least one unit for testing that includes one reagent type for any irregular antigen and weak D. 2. Enter reaction results to create an inconclusive weak D test by having a positive control. 3. Enter reaction results for the other reagent type using W, F, and/or M. Attempt to enter an interpretation of “I” (Inconclusive). 4. Enter reaction results for the other reagent type using W, F, and/or M. Attempt to enter an interpretation of “P”. |
| **Expected Outcome** | 1. The system responds by enabling the OK button for the weak D test. 2. The system indicates that an “I” entry is not allowed. 3. The system indicates that a “P” interpretation is valid. |
| **Scenario 2:** Verify that an Inconclusive Interpretation is not allowed for a selected reagent type with any testing phase. | |
| **Data** | Enter at minimum one unit of red blood cells, apheresis red blood cells or whole blood, any valid activated product code, limited or available. |
| **User** | No specific user role is required. |
| **Steps** | 1. Create a worklist with at least one unit for testing for any antigen typing except Weak D. 2. Enter reaction results at least one W, F or M for the row (Do not enter any reaction results 1+-4+). 3. Attempt to enter an interpretation of “I”. 4. Attempt to enter an interpretation of “N” 5. Attempt to enter an interpretation of “P” |
| **Expected Outcome** | The system responds to each step above as follows:   1. “I” is an invalid entry. Re-enter your results. 2. “N” is an invalid entry. Re-enter your results. 3. “P” is a valid entry. The OK button enables. |
| **Scenario 3:** Verify that the system responses are correct for an IS/RT testing of a selected reagent type. | |
| **Data** | Enter at minimum one unit of red blood cells, apheresis red blood cells or whole blood, any valid activated product code, limited or available. |
| **User** | No specific user role is required. |
| **Steps** | 1. Create a worklist with at least one unit for testing and Testing Phases of IS/RT. 2. Enter reaction results to create this pattern: IS is not tested (X) and RT is positive (P) with a P interpretation. 3. Enter reaction results to create this pattern IS is positive (P) and RT is not tested (X) with a P interpretation. |
| **Expected Outcome** | The system responds to either 2 or 3 by enabling the OK button. |
| **Scenario 4:** Verify that the system responses are correct for an IS/37 testing of a selected reagent type. | |
| **Data** | Enter at minimum one unit of red blood cells, apheresis red blood cells or whole blood, any valid activated product code, limited or available. |
| **User** | No specific user role is required. |
| ***Steps*** | 1. *Create a worklist with at least one unit for testing and Testing Phases of IS/37.* 2. *Enter reaction results to create this pattern: IS is not tested (X) and 37 is positive (P) with a P interpretation.* |
| **Expected Outcome** | The system responds by enabling the OK button. |

| **Option: Select Blood Unit** | |
| --- | --- |
| **Test Objective 8):** Demonstrate the improved response time when selecting a large number of units for one patient. | |
| **Scenario 1:** Verify that the system responds within 15 seconds when selecting and crossmatching six (6) to ten (10) blood products for a single patient. | |
| **Data** | Enter the number of units required to mimic a large volume crossmatch scenario at your hospital, at least six (6) units. |
| **User** | No specific user role is required. |
| **Steps** | 1. Select the blood units in one session. 2. Perform crossmatch testing on all units selected in Step 1. 3. Print the BTRF and Caution Tag for each unit. |
| **Expected Outcome** | The system responds within 15 seconds to the user. |
| **Scenario 2:** Verify that the system responds within 15 seconds when multiple users are selecting different blood units for a single patient.  Note: Attempts to use the same blood unit by multiple users will result in a data lock, which is expected functionality unrelated to this correction. | |
| **Data** | Enter the number of units required to mimic a large volume crossmatch 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 is being issued. Alternately, 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. |
| **Steps** | 1. Select the first batch of blood units. 2. Hand off the first batch to a second user who will issue these units while another set of units is being selected by the first user. 3. At the same time as Step 2, a third staff member may be selecting additional products for testing or modification as assigned to the same patient. |
| **Expected Outcome** | The system responds within 15 seconds to all users. |

| **Option: Patient ABO/Rh Test** | |
| --- | --- |
| **Test Objective 9):** Verify that the ABO interpretation cannot be saved without its corresponding Rh interpretation and that the ABO/Rh discrepancy override is triggered when appropriate. | |
| **Scenario 1:** Verify that the ABO interpretation cannot be saved without its corresponding Rh interpretation. Alternately, repeat the scenario for Rh interpretation. | |
| **Data** | Place a CPRS Order for an ABO/Rh test for a selected patient. |
| **User** | No specific user role is required. |
| **Steps** | 1. Accept the order in VBECS. 2. Select the order from the pending task list. 3. Enter ABO and Rh test results. 4. Enter only the ABO interpretation. (Rh interpretation remains blank.) 5. Attempt to save the test. Verify that the OK button is disabled. 6. Enter the Rh interpretation. 7. Verify that the OK button is enabled and save the typing. |
| **Expected Outcome** | At step 5: The OK button is disabled and the ABO/Rh test may not be saved.  At step 7. The OK button is enabled and the ABO/Rh test may be saved. |
| **Scenario 2:** Verify that when an ABO/Rh discrepancy is unresolved, Select Unit will not allow selection of type specific blood for either blood type (by VBECS TEST entry) filed that create the discrepancy. | |
| **Data** | Place a CPRS Order for a TAS and RBC using a patient with a known blood type on file from a previous VBECS ABO/Rh test, not NR.  Make sure that the antibody screen test for this specimen is complete (it may be positive or negative).  Enter three red cell products that are available (ABO/Rh confirmation is complete) and is otherwise acceptable for any of the patient’s other requirements; one that is type specific for the historic blood type, one that is type specific for the current type, and one that is O. |
| **User** | No specific user role is required. |
| **Steps** | 1. Complete the ABO/Rh test creating an ABO discrepancy with the previous historical patient blood type (previous testing instance). 2. Complete the override comments and save the test result. 3. Go to Select Unit, select the RBC order and verify that the Emergency Issue message appears. 4. Attempt to select the O unit, by entering the unit id and product code or by selecting it from the pick list. This unit is selectable. Add it. 5. Attempt to select the blood unit that matches the historic blood type on file. This unit will need to be entered, as it will not appear on a pick list. Verify that this unit is not selectable. 6. Attempt to select the blood unit that matches the current specimen’s blood type. This unit will need to be entered, as it will not appear on a pick list. Verify that this unit is not selectable. 7. Save the selected unit. 8. Go to Issue Unit, enter the unit id and product codes for both of the units that failed to be selected, and verify that they are not selectable at issue. 9. Verify that the only unit available for issue is the O unit and that it appears on the Emergency Issue tab. |
| **Expected Outcome** | The ABO/Rh discrepancy override is triggered and any blood selection activity reflects that the ABO/Rh discrepancy will not allow the selection of type specific units for either blood type saved on the patient record. |
| **Scenario 3:** Verify that Select Unit will not allow selection of type specific blood for either blood type filed that create the discrepancy when an ABO/Rh discrepancy is unresolved and the historic ABO/Rh is “VistA Converted”. | |
| **Data** | Place a CPRS Order for a TAS and RBC using a patient with a known VistA converted blood type on file, not NR.  Make sure that the antibody screen test for this specimen is complete (it may be positive or negative).  Enter three red cell products that are available (ABO/Rh confirmation is complete) and is otherwise acceptable for any of the patient’s other requirements; one that is type specific for the historic blood type, one that is type specific for the current type, and one that is O. |
| **User** | No specific user role is required. |
| **Steps** | 1. Complete the ABO/Rh test creating an ABO discrepancy with the previous historical patient blood type (VistA converted). 2. Complete the override comments and save the test result. 3. Go to Select Unit, select the RBC order and verify that an Emergency Issue message appears (CR 2789). 4. Attempt to select the blood unit that matches the current specimen’s blood type. This unit will need to be entered, as it will not appear on a pick list. Verify that this unit is not selectable. 5. Attempt to select the O unit, by entering the unit id and product code or by selecting it from the pick list. This unit is selectable. Add it. 6. Attempt to select the blood unit that matches the historic blood type on file. This unit will need to be entered, as it will not appear on a pick list. Verify that this unit is selectable. 7. Save the selected units. 8. Go to Issue Unit, enter the unit id and product codes for the unit that failed to be selected, and verify that it is not selectable at issue. 9. Verify that the O unit is available for issue and that it appears on the Emergency Issue tab. 10. Verify that the unit that matches the VistA converted blood type is available for issue and that it appears on the Emergency Issue tab. |
| **Expected Outcome** | The ABO/Rh discrepancy override is triggered and any blood selection activity reflects that the ABO/Rh discrepancy will not allow the selection of type specific units for the current specimen’s blood type saved on the patient record.  Note: VBECS allows the user to select and issue a type specific unit that matches the VistA converted blood type compatibility tables. This should be used appropriately as defined in your local policies and procedures. |

| **Option: Any report from the Report Menu** | |
| --- | --- |
| **Test Objective 10):** Verify that the default printer displayed is the logged on user’s division and that inactivation of the GHOST division does not affect report printing. | |
| **Scenario 1:** Verify that the report printer dialog presents the logged on user’s division printer as the default printer selection. | |
| **Data** | None. |
| **User** | No specific user role is required.  The user must normally see a DO NOT SELECT Division when they log onto VBECS. |
| **Steps** | 1. Request the selected report to print. 2. Verify that your current logged on division printer is presented as the default printer for the report. |
| **Expected Outcome** | The user’s logged on division printer is displayed without any additional user interaction. |
| **Scenario 2:** Verify that when the GHOST Division is inactivated the DO NOT USE division no longer displays for user selection and that the default printer displays is unaffected. | |
| **Data** | Go to the VBECS Administrator icon for the TEST environment.  Select Configure Division.  Uncheck the division named GHOST in the list. A warning message displays regarding inactivation of the division. Ensure you have selected the division GHOST.  Click Yes to the warning message.  The division GHOST is removed from the list.  Accept your changes. |
| **User** | Administrative Supervisor is required to inactivate the GHOST division.  No specific user role is required to execute the steps. |
| **Steps** | 1. Log onto VBECS. 2. Verify that the DO NOT SELECT division is not displayed. 3. Repeat Objective 10 Scenario 1. |
| **Expected Outcome** | 2. The user no longer has an option to select a DO NOT SELECT division.  3. The default printer displays correctly. |

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## Appendix B: Modification Target Unavailable

Your blood supplier may provide you with a list of their possible products for manufacture. It is recommended that valid product codes found on your local supplier’s product list be used for all your local validation testing. This will help focus your validation efforts on products that may actually require processing at your facility. It is recommended that all blood components (product codes) that require modification prior to administration be tested for the availability of a target for the modification method prior to expected production use of that product code.

Should you encounter a blood component in a modification method that does not present a product target code for selection, suggested workarounds are:

1. Refuse to accept the product from your supplier, if possible, until this is rectified by a table update.
2. Maintain an off-line inventory of the frozen 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.
3. Enter the frozen product into VBECS inventory, then inactivate or discard that frozen unit, re-entering it with the thawed product code when needed. The newly entered unit will not require modification and is available for immediate selection.
4. Create and maintain a local policy and procedure for a mapping table between the ISBT 128 product code that cannot be modified as there is no target and one that can be modified and provide a target.

Known problems include:

* The inability to thaw more than one portion of a divided apheresis unit. These are clearly identified by the division designation of A0, B0, etc. not 00 in the ISBT 128 labeled unit’s product code. This has not presented a problem with Codabar labeled products at this time.
* Certain ISBT 128 labeled product codes do not have targets available during THAW modification which requires a workaround as described in the *Known Anomalies and Defects* document.
* ICCBBA Core Conditions (@04, @07, @08, @34, @35, @36, @37, @40, @41, @47, @48, @59, @60, @61, @62, @63, @A2, @A4, @A5, A8,@AH, @AM, @AN, @AR, @AU, @AX, @B4, @BJ, @BK,@BL, @BN, @BO, @BQ, @BR, @BS, @BT, @CA, @CB, @CE, @CR, @CS, @CT, @CU,@CV) that are NOT handled by the VBECS modification tables which will result in missing targets and may apply to ISBT 128 Product codes above E5725 that require modification to transfuse.
* Table 1 identifies the product codes and the modification type where no target is available for the product codes added in 1.3.0.0 and 1.5.0.0 blood product table updates.

Caution icon If a missing target is discovered that is not included in Table 1, please file a Remedy ticket.

Table : Product Codes and Modification Type

| **Product Code** | **Modification Type with No Target for this Product Code** | | | | |
| --- | --- | --- | --- | --- | --- |
| E0749 | Thaw |  |  |  |  |
| E0752 | Thaw |  |  |  |  |
| E0755 | Thaw |  |  |  |  |
| E0758 | Thaw |  |  |  |  |
| E0761 | Thaw |  |  |  |  |
| E0764 | Thaw |  |  |  |  |
| E3583 | Thaw |  |  |  |  |
| E3584 | Thaw |  |  |  |  |
| E3585 | Thaw |  |  |  |  |
| E3586 | Thaw |  |  |  |  |
| E3587 | Thaw |  |  |  |  |
| E3588 | Thaw |  |  |  |  |
| E3589 | Thaw |  |  |  |  |
| E3590 | Thaw |  |  |  |  |
| E5495 | Rejuvenate | Volume Reduction |  |  |  |
| E5496 | Rejuvenate | Volume Reduction |  |  |  |
| E5497 | Rejuvenate | Volume Reduction |  |  |  |
| E5498 | Rejuvenate | Volume Reduction |  |  |  |
| E5499 | Rejuvenate | Volume Reduction |  |  |  |
| E5500 | Rejuvenate | Volume Reduction |  |  |  |
| E5501 | Volume Reduction | |  |  |  |
| E5502 | Rejuvenate | Volume Reduction |  |  |  |
| E5503 | Volume Reduction | |  |  |  |
| E5504 | Rejuvenate | Volume Reduction |  |  |  |
| E5506 | Rejuvenate | Volume Reduction |  |  |  |
| E5507 | Volume Reduction | |  |  |  |
| E5508 | Volume Reduction | |  |  |  |
| E5509 | Rejuvenate | Volume Reduction |  |  |  |
| E5510 | Volume Reduction | |  |  |  |
| E5511 | Pool |  |  |  |  |
| E5512 | Pool |  |  |  |  |
| E5518 | Volume Reduction | |  |  |  |
| E5519 | Volume Reduction | |  |  |  |
| E5520 | Volume Reduction | |  |  |  |
| E5521 | Volume Reduction | |  |  |  |
| E5522 | Volume Reduction | |  |  |  |
| E5523 | Volume Reduction | |  |  |  |
| E5524 | Volume Reduction | |  |  |  |
| E5525 | Volume Reduction | |  |  |  |
| E5526 | Volume Reduction | |  |  |  |
| E5527 | Volume Reduction | |  |  |  |
| E5528 | Volume Reduction | |  |  |  |
| E5529 | Volume Reduction | |  |  |  |
| E5530 | Volume Reduction | |  |  |  |
| E5535 | Rejuvenate | Volume Reduction |  |  |  |
| E5536 | Volume Reduction | |  |  |  |
| E5537 | Rejuvenate | Volume Reduction |  |  |  |
| E5538 | Rejuvenate | Volume Reduction |  |  |  |
| E5539 | Volume Reduction | |  |  |  |
| E5540 | Rejuvenate | Volume Reduction |  |  |  |
| E5541 | Volume Reduction | |  |  |  |
| E5542 | Volume Reduction | |  |  |  |
| E5543 | Rejuvenate | Volume Reduction |  |  |  |
| E5544 | Rejuvenate | Volume Reduction |  |  |  |
| E5545 | Volume Reduction | |  |  |  |
| E5546 | Rejuvenate | Volume Reduction |  |  |  |
| E5547 | Volume Reduction | |  |  |  |
| E5553 | Rejuvenate |  |  |  |  |
| E5554 | Rejuvenate |  |  |  |  |
| E5555 | Wash | Rejuvenate |  |  |  |
| E5556 | Rejuvenate |  |  |  |  |
| E5557 | Rejuvenate |  |  |  |  |
| E5558 | Rejuvenate |  |  |  |  |
| E5559 | Rejuvenate |  |  |  |  |
| E5560 | Wash | Rejuvenate |  |  |  |
| E5561 | Rejuvenate |  |  |  |  |
| E5562 | Wash | Rejuvenate |  |  |  |
| E5563 | Rejuvenate |  |  |  |  |
| E5564 | Rejuvenate |  |  |  |  |
| E5565 | Wash | Rejuvenate |  |  |  |
| E5566 | Wash | Rejuvenate |  |  |  |
| E5567 | Rejuvenate |  |  |  |  |
| E5568 | Wash | Rejuvenate |  |  |  |
| E5569 | Rejuvenate |  |  |  |  |
| E5621 | Thaw |  |  |  |  |
| E6058 | Thaw |  |  |  |  |
| E6059 | Thaw |  |  |  |  |
| E6060 | Thaw |  |  |  |  |
| E6061 | Thaw |  |  |  |  |
| E6062 | Thaw |  |  |  |  |
| E6063 | Thaw |  |  |  |  |
| E6064 | Thaw |  |  |  |  |
| E6065 | Volume Reduction | |  |  |  |
| E6066 | Rejuvenate | Volume Reduction |  |  |  |
| E6084 | Thaw |  |  |  |  |
| E6085 | Thaw |  |  |  |  |
| E6128 | Volume Reduction | |  |  |  |
| E6133 | Volume Reduction | |  |  |  |
| E6134 | Volume Reduction | |  |  |  |
| E6135 | Volume Reduction | |  |  |  |
| E6144 | Wash | Freeze | Volume Reduction | |  |
| E6145 | Wash | Rejuvenate | Freeze | Volume Reduction | |
| E6146 | Wash | Rejuvenate | Freeze | Volume Reduction | |
| E6147 | Wash | Rejuvenate | Freeze | Volume Reduction | |
| E6148 | Volume Reduction | |  |  |  |
| E6149 | Volume Reduction | |  |  |  |
| E6152 | Rejuvenate | Volume Reduction |  |  |  |
| E6153 | Volume Reduction | |  |  |  |
| E6154 | Rejuvenate | Volume Reduction |  |  |  |
| E6155 | Volume Reduction | |  |  |  |

## Appendix C: Additional Blood Product Table Changes

This table is organized by ascending Product Code order; Codabar units display ISBT 128 product codes.

Table 1: Additional Blood Product Table change details

| **Product Type Code** | **Product Code** | **Table Changes**  **(MSH= Maximum Storage Hours PV= Product Volume)** |
| --- | --- | --- |
| APHERESIS FRESH FROZEN PLASMA | 18261 | MSH 8760 to 61320 |
| APHERESIS FRESH FROZEN PLASMA | 18262 | MSH 8760 to 61320 |
| APHERESIS FRESH FROZEN PLASMA | 18263 | MSH 8760 to 61320 |
| APHERESIS FRESH FROZEN PLASMA | 18264 | MSH 8760 to 61320 |
| APHERESIS FRESH FROZEN PLASMA | 18265 | MSH 8760 to 61320 |
| APHERESIS FRESH FROZEN PLASMA | 18266 | MSH 8760 to 61320 |
| APHERESIS FRESH FROZEN PLASMA | 18267 | MSH 8760 to 61320 |
| APHERESIS FRESH FROZEN PLASMA | 18268 | MSH 8760 to 61320 |
| APHERESIS FRESH FROZEN PLASMA | 48711 | MSH to 8760 hours (1 year) |
| APHERESIS FRESH FROZEN PLASMA | E3885 | MSH 672 to 8760 |
| APHERESIS FRESH FROZEN PLASMA | E3891 | MSH 672 to 8760 |
| APHERESIS FRESH FROZEN PLASMA | E4457 | MSH 672 to 8760 |
| APHERESIS FRESH FROZEN PLASMA | E4516 | Added D2 to ProductAttributeForm and LUKOPR to ProductShortName |
| APHERESIS FRESH FROZEN PLASMA | E4618 | MSH 24 to 8760 |
| APHERESIS FRESH FROZEN PLASMA | E4814 | MSH 672 to 61320 |
| APHERESIS FRESH FROZEN PLASMA | E4816 | MSH 672 to 61320 |
| APHERESIS FRESH FROZEN PLASMA | E4818 | MSH 672 to 61320 |
| APHERESIS FRESH FROZEN PLASMA | E4820 | MSH 672 to 61320 |
| APHERESIS FRESH FROZEN PLASMA | E5681 | "NaCitrate" to "NaCit" in ProductShortName |
| APHERESIS GRANULOCYTES-PLATELETS | E3691 | PV 200 to 150 |
| APHERESIS GRANULOCYTES-PLATELETS | E3692 | PV 200 to 150 |
| APHERESIS GRANULOCYTES-PLATELETS | E3693 | PV 200 to 150 |
| APHERESIS GRANULOCYTES-PLATELETS | E3694 | PV 200 to 150 |
| APHERESIS GRANULOCYTES-PLATELETS | E3695 | PV 200 to 150 |
| APHERESIS GRANULOCYTES-PLATELETS | E3696 | PV 200 to 150 |
| APHERESIS GRANULOCYTES-PLATELETS | E4189 | MSH 24 to 336 |
| APHERESIS GRANULOCYTES-PLATELETS | E4190 | MSH 24 to 336 |
| APHERESIS GRANULOCYTES-PLATELETS | E4191 | MSH 24 to 336 |
| APHERESIS GRANULOCYTES-PLATELETS | E4192 | MSH 24 to 336 |
| APHERESIS GRANULOCYTES-PLATELETS | E4580 | Added "|" between "refg" and "Open" in ProductName |
| APHERESIS GRANULOCYTES-PLATELETS | E4685 | MSH 24 to 336 |
| APHERESIS GRANULOCYTES-PLATELETS | E4686 | MSH 24 to 336 |
| APHERESIS GRANULOCYTES-PLATELETS | E4687 | MSH 24 to 336 |
| APHERESIS GRANULOCYTES-PLATELETS | E4688 | MSH 24 to 336 |
| APHERESIS LEUKOCYTES | E3757 | MSH to 24 hours |
| APHERESIS LEUKOCYTES | E3758 | MSH to 24 hours |
| APHERESIS LEUKOCYTES | E3765 | MSH to 24 hours |
| APHERESIS LEUKOCYTES | E3766 | MSH to 24 hours |
| APHERESIS LEUKOCYTES | E3773 | MSH to 24 hours |
| APHERESIS LEUKOCYTES | E3774 | MSH to 24 hours |
| APHERESIS LEUKOCYTES | E3777 | MSH to 24 hours |
| APHERESIS LEUKOCYTES | E3778 | MSH to 24 hours |
| APHERESIS LEUKOCYTES | E3781 | MSH to 24 hours |
| APHERESIS LEUKOCYTES | E3782 | MSH to 24 hours |
| APHERESIS LEUKOCYTES | E3785 | MSH to 24 hours |
| APHERESIS LEUKOCYTES | E3788 | MSH to 24 hours |
| APHERESIS LEUKOCYTES | E3789 | MSH to 24 hours |
| APHERESIS LEUKOCYTES | E3790 | MSH to 24 hours |
| APHERESIS LEUKOCYTES | E3793 | MSH to 24 hours |
| APHERESIS LEUKOCYTES | E3794 | MSH to 24 hours |
| APHERESIS LEUKOCYTES | E3797 | MSH to 24 hours |
| APHERESIS LEUKOCYTES | E3798 | MSH to 24 hours |
| APHERESIS LEUKOCYTES | E3801 | MSH to 24 hours |
| APHERESIS LEUKOCYTES | E3804 | MSH to 24 hours |
| APHERESIS LEUKOCYTES | E3829 | MSH to 24 hours |
| APHERESIS LEUKOCYTES | E3830 | MSH to 24 hours |
| APHERESIS LEUKOCYTES | E6057 | MSH to 24 hours |
| APHERESIS PLATELETS | E5062 | MSH to 120 hours (5 days) |
| APHERESIS RED BLOOD CELLS | 03330 | MSH 1008 to 672 |
| APHERESIS RED BLOOD CELLS | 03380 | MSH 1008 to 672 |
| APHERESIS RED BLOOD CELLS | 03390 | MSH 1008 to 672 |
| APHERESIS RED BLOOD CELLS | 24011 | MSH to 504 hours (21 days) |
| APHERESIS RED BLOOD CELLS | 24811 | MSH to 504 hours (21 days) |
| APHERESIS RED BLOOD CELLS | 25011 | MSH to 504 hours (21 days) |
| APHERESIS RED BLOOD CELLS | 25811 | MSH to 504 hours (21 days) |
| APHERESIS RED BLOOD CELLS | E3824 | MSH 1008 to 840 |
| APHERESIS RED BLOOD CELLS | E4027 | MSH 1008 to 840 |
| APHERESIS RED BLOOD CELLS | E4040 | MSH 1008 to 840 |
| APHERESIS RED BLOOD CELLS | E4041 | MSH 1008 to 840 |
| APHERESIS RED BLOOD CELLS | E4044 | MSH 1008 to 840 |
| APHERESIS RED BLOOD CELLS | E4045 | MSH 1008 to 840 |
| APHERESIS RED BLOOD CELLS | E4118 | MSH 1008 to 840 |
| APHERESIS RED BLOOD CELLS | E4216 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4217 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4221 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4222 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4223 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4227 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4228 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4229 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4233 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4234 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4271 | MSH 672 to 504 |
| APHERESIS RED BLOOD CELLS | E4272 | MSH 672 to 504 |
| APHERESIS RED BLOOD CELLS | E4273 | MSH 672 to 504 |
| APHERESIS RED BLOOD CELLS | E4274 | MSH 672 to 504 |
| APHERESIS RED BLOOD CELLS | E4275 | MSH 672 to 504 |
| APHERESIS RED BLOOD CELLS | E4276 | MSH 672 to 504 |
| APHERESIS RED BLOOD CELLS | E4277 | MSH 672 to 504 |
| APHERESIS RED BLOOD CELLS | E4278 | MSH 672 to 504 |
| APHERESIS RED BLOOD CELLS | E4279 | MSH 672 to 504 |
| APHERESIS RED BLOOD CELLS | E4280 | MSH 672 to 504 |
| APHERESIS RED BLOOD CELLS | E4281 | MSH 672 to 504 |
| APHERESIS RED BLOOD CELLS | E4282 | MSH 672 to 504 |
| APHERESIS RED BLOOD CELLS | E4283 | MSH 672 to 504 |
| APHERESIS RED BLOOD CELLS | E4284 | MSH 672 to 504 |
| APHERESIS RED BLOOD CELLS | E4285 | MSH 672 to 504 |
| APHERESIS RED BLOOD CELLS | E4286 | MSH 672 to 504 |
| APHERESIS RED BLOOD CELLS | E4287 | MSH 672 to 504 |
| APHERESIS RED BLOOD CELLS | E4288 | MSH 672 to 504 |
| APHERESIS RED BLOOD CELLS | E4289 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4290 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4291 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4292 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4293 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4294 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4295 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4296 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4297 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4298 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4299 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4300 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4301 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4302 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4303 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4304 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4305 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4306 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4307 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4311 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4312 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4313 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4317 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4318 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4319 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4323 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4324 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4361 | MSH 672 to 504 |
| APHERESIS RED BLOOD CELLS | E4362 | MSH 672 to 504 |
| APHERESIS RED BLOOD CELLS | E4363 | MSH 672 to 504 |
| APHERESIS RED BLOOD CELLS | E4364 | MSH 672 to 504 |
| APHERESIS RED BLOOD CELLS | E4365 | MSH 672 to 504 |
| APHERESIS RED BLOOD CELLS | E4366 | MSH 672 to 504 |
| APHERESIS RED BLOOD CELLS | E4367 | MSH 672 to 504 |
| APHERESIS RED BLOOD CELLS | E4368 | MSH 672 to 504 |
| APHERESIS RED BLOOD CELLS | E4369 | MSH 672 to 504 |
| APHERESIS RED BLOOD CELLS | E4370 | MSH 672 to 504 |
| APHERESIS RED BLOOD CELLS | E4371 | MSH 672 to 504 |
| APHERESIS RED BLOOD CELLS | E4372 | MSH 672 to 504 |
| APHERESIS RED BLOOD CELLS | E4373 | MSH 672 to 504 |
| APHERESIS RED BLOOD CELLS | E4374 | MSH 672 to 504 |
| APHERESIS RED BLOOD CELLS | E4375 | MSH 672 to 504 |
| APHERESIS RED BLOOD CELLS | E4376 | MSH 672 to 504 |
| APHERESIS RED BLOOD CELLS | E4377 | MSH 672 to 504 |
| APHERESIS RED BLOOD CELLS | E4378 | MSH 672 to 504 |
| APHERESIS RED BLOOD CELLS | E4379 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4380 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4381 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4382 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4383 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4384 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4385 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4386 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4387 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4388 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4389 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4390 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4391 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4392 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4393 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4394 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4395 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4401 | MSH 1008 to 840 |
| APHERESIS RED BLOOD CELLS | E4548 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4549 | MSH 672 to 504 |
| APHERESIS RED BLOOD CELLS | E4550 | MSH 672 to 504 |
| APHERESIS RED BLOOD CELLS | E4551 | MSH 672 to 504 |
| APHERESIS RED BLOOD CELLS | E4552 | MSH 672 to 504 |
| APHERESIS RED BLOOD CELLS | E4553 | MSH 672 to 504 |
| APHERESIS RED BLOOD CELLS | E4554 | MSH 672 to 504 |
| APHERESIS RED BLOOD CELLS | E4555 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4556 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4557 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4558 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4559 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4607 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4610 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4613 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E4616 | MSH 1008 to 504 |
| APHERESIS RED BLOOD CELLS | E5162 | MSH 840 to 1008 |
| APHERESIS RED BLOOD CELLS | E5163 | MSH 840 to 1008 |
| APHERESIS RED BLOOD CELLS | E5231 | MSH 840 to 1008 |
| APHERESIS RED BLOOD CELLS | E5232 | MSH 840 to 1008 |
| APHERESIS RED BLOOD CELLS | E5233 | MSH 840 to 1008 |
| APHERESIS RED BLOOD CELLS | E5234 | MSH 840 to 1008 |
| APHERESIS RED BLOOD CELLS | E5235 | MSH 840 to 1008 |
| APHERESIS RED BLOOD CELLS | E5236 | MSH 840 to 1008 |
| APHERESIS RED BLOOD CELLS | E6004 | MSH to 672 hours (28 days) |
| CRYOPRECIPITATE | E5165 | "NS" to "XX" in ProductName |
| CRYOPRECIPITATE | E5166 | "NS" to "XX" in ProductName |
| CRYOPRECIPITATE | E5686 | PV 450 to 15 |
| DEGLYCEROLIZED  REJUVENATED RED BLOOD CELLS | 06501 | MSH 24 to 336 |
| DEGLYCEROLIZED RED BLOOD CELLS | 06401 | MSH 24 to 336 |
| DEGLYCEROLIZED RED BLOOD CELLS | 27348 | PV 450 to 200 and MSH 24 to 336 |
| DEGLYCEROLIZED RED BLOOD CELLS | 27349 | PV 450 to 200 and MSH 24 to 336 |
| DEGLYCEROLIZED RED BLOOD CELLS | 27350 | PV 450 to 200 and MSH 24 to 336 |
| DEGLYCEROLIZED RED BLOOD CELLS | 27351 | PV 450 to 200 and MSH 24 to 336 |
| DEGLYCEROLIZED RED BLOOD CELLS | 27352 | PV 450 to 200 |
| DEGLYCEROLIZED RED BLOOD CELLS | 27353 | PV 450 to 200 |
| DEGLYCEROLIZED RED BLOOD CELLS | 27354 | PV 450 to 200 |
| DEGLYCEROLIZED RED BLOOD CELLS | 27355 | PV 450 to 200 |
| DEGLYCEROLIZED RED BLOOD CELLS | 27356 | PV 450 to 200 |
| DEGLYCEROLIZED RED BLOOD CELLS | 27357 | PV 450 to 200 |
| DEGLYCEROLIZED RED BLOOD CELLS | 27358 | PV 450 to 200 |
| DEGLYCEROLIZED RED BLOOD CELLS | 27359 | MSH 24 to 336 |
| DEGLYCEROLIZED RED BLOOD CELLS | 27360 | MSH 24 to 336 |
| DEGLYCEROLIZED RED BLOOD CELLS | 27361 | MSH 24 to 336 |
| DEGLYCEROLIZED RED BLOOD CELLS | 27362 | MSH 24 to 336 |
| DEGLYCEROLIZED RED BLOOD CELLS | 36401 | MSH to 336 hours (14 days) |
| DEGLYCEROLIZED RED BLOOD CELLS | 36402 | MSH to 336 hours (14 days) |
| DEGLYCEROLIZED RED BLOOD CELLS | 36403 | MSH to 336 hours (14 days) |
| DEGLYCEROLIZED RED BLOOD CELLS | 36404 | MSH to 336 hours (14 days) |
| DEGLYCEROLIZED RED BLOOD CELLS | 36405 | MSH to 336 hours (14 days) |
| DEGLYCEROLIZED RED BLOOD CELLS | 36406 | MSH to 336 hours (14 days) |
| DEGLYCEROLIZED RED BLOOD CELLS | 36407 | MSH to 336 hours (14 days) |
| DEGLYCEROLIZED RED BLOOD CELLS | 36408 | MSH to 336 hours (14 days) |
| DEGLYCEROLIZED RED BLOOD CELLS | 36801 | MSH to 336 hours (14 days) |
| DEGLYCEROLIZED RED BLOOD CELLS | 36802 | MSH to 336 hours (14 days) |
| DEGLYCEROLIZED RED BLOOD CELLS | 36803 | MSH to 336 hours (14 days) |
| DEGLYCEROLIZED RED BLOOD CELLS | 36804 | MSH to 336 hours (14 days) |
| DEGLYCEROLIZED RED BLOOD CELLS | 36805 | MSH to 336 hours (14 days) |
| DEGLYCEROLIZED RED BLOOD CELLS | 36806 | MSH to 336 hours (14 days) |
| DEGLYCEROLIZED RED BLOOD CELLS | 36807 | MSH to 336 hours (14 days) |
| DEGLYCEROLIZED RED BLOOD CELLS | 36808 | MSH to 336 hours (14 days) |
| DEGLYCEROLIZED RED BLOOD CELLS | 37401 | MSH to 336 hours (14 days) |
| DEGLYCEROLIZED RED BLOOD CELLS | 37402 | MSH to 336 hours (14 days) |
| DEGLYCEROLIZED RED BLOOD CELLS | 37403 | MSH to 336 hours (14 days) |
| DEGLYCEROLIZED RED BLOOD CELLS | 37404 | MSH to 336 hours (14 days) |
| DEGLYCEROLIZED RED BLOOD CELLS | 37405 | MSH to 336 hours (14 days) |
| DEGLYCEROLIZED RED BLOOD CELLS | 37406 | MSH to 336 hours (14 days) |
| DEGLYCEROLIZED RED BLOOD CELLS | 37407 | MSH to 336 hours (14 days) |
| DEGLYCEROLIZED RED BLOOD CELLS | 37408 | MSH to 336 hours (14 days) |
| DEGLYCEROLIZED RED BLOOD CELLS | 37801 | MSH to 336 hours (14 days) |
| DEGLYCEROLIZED RED BLOOD CELLS | 37802 | MSH to 336 hours (14 days) |
| DEGLYCEROLIZED RED BLOOD CELLS | 37803 | MSH to 336 hours (14 days) |
| DEGLYCEROLIZED RED BLOOD CELLS | 37804 | MSH to 336 hours (14 days) |
| DEGLYCEROLIZED RED BLOOD CELLS | 37805 | MSH to 336 hours (14 days) |
| DEGLYCEROLIZED RED BLOOD CELLS | 37806 | MSH to 336 hours (14 days) |
| DEGLYCEROLIZED RED BLOOD CELLS | 37807 | MSH to 336 hours (14 days) |
| DEGLYCEROLIZED RED BLOOD CELLS | 37808 | MSH to 336 hours (14 days) |
| DEGLYCEROLIZED RED BLOOD CELLS | E3942 | MSH 24 to 336 |
| DEGLYCEROLIZED RED BLOOD CELLS | E3993 | MSH 24 to 336 |
| DEGLYCEROLIZED RED BLOOD CELLS | E4203 | MSH 24 to 336 |
| DEGLYCEROLIZED RED BLOOD CELLS | E4683 | MSH 24 to 336 |
| DEGLYCEROLIZED RED BLOOD CELLS | E4684 | MSH 24 to 336 |
| DEGLYCEROLIZED RED BLOOD CELLS | E4993 | PV 450 to 200 |
| DEGLYCEROLIZED RED BLOOD CELLS | E5587 | PV 450 to 200 |
| DEGLYCEROLIZED RED BLOOD CELLS | E5713 | PV 450 to 200 |
| DEGLYCEROLIZED RED BLOOD CELLS | E5714 | PV 450 to 200 |
| DEGLYCEROLIZED RED BLOOD CELLS | E5725 | PV 450 to 200 |
| FRESH FROZEN PLASMA | 18101 | Change ProductShortName "FFP None" to "PLASMA None" |
| FRESH FROZEN PLASMA | 18161 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | 47301 | MSH 61320 to 8760 |
| FRESH FROZEN PLASMA | 47302 | MSH 61320 to 8760 |
| FRESH FROZEN PLASMA | 47303 | MSH 61320 to 8760 |
| FRESH FROZEN PLASMA | 47304 | MSH 61320 to 8760 |
| FRESH FROZEN PLASMA | 47305 | MSH 61320 to 8760 |
| FRESH FROZEN PLASMA | 47306 | MSH 61320 to 8760 |
| FRESH FROZEN PLASMA | 47307 | MSH 61320 to 8760 |
| FRESH FROZEN PLASMA | 47308 | MSH 61320 to 8760 |
| FRESH FROZEN PLASMA | 48301 | MSH 61320 to 8760 |
| FRESH FROZEN PLASMA | 48302 | MSH 61320 to 8760 |
| FRESH FROZEN PLASMA | 48303 | MSH 61320 to 8760 |
| FRESH FROZEN PLASMA | 48304 | MSH 61320 to 8760 |
| FRESH FROZEN PLASMA | 48305 | MSH 61320 to 8760 |
| FRESH FROZEN PLASMA | 48306 | MSH 61320 to 8760 |
| FRESH FROZEN PLASMA | 48307 | MSH 61320 to 8760 |
| FRESH FROZEN PLASMA | 48308 | MSH 61320 to 8760 |
| FRESH FROZEN PLASMA | E2498 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2499 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2500 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2501 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2515 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2516 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2517 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2518 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2519 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2520 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2530 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2531 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2532 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2533 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2547 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2548 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2549 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2550 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2551 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2552 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2562 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2563 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2564 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2565 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2579 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2580 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2581 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2582 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2583 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2584 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2594 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2595 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2596 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2597 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2611 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2612 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2613 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2614 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2615 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2616 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2626 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2627 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2628 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2629 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2643 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2644 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2645 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2646 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2647 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2648 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2658 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2659 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2660 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2661 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2675 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2676 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2677 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E2678 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E4121 | core condition @AS to @BK and "None" to "CPDA-1" in ProductShortName |
| FRESH FROZEN PLASMA | E4122 | core condition @AS to @BK and "None" to "CPDA-1" in ProductShortName |
| FRESH FROZEN PLASMA | E4126 | core condition @AS to @BK and "None" to "CPDA-1" in ProductShortName |
| FRESH FROZEN PLASMA | E4663 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E4664 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E4834 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E4836 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E4838 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E4840 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E4842 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E4844 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E4858 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E4860 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E4862 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E4864 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E4866 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E4868 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E4882 | MSH 672 to 61320 hours (7 years) |
| FRESH FROZEN PLASMA | E4884 | MSH 672 to 61320 hours (7 years) |
| FRESH FROZEN PLASMA | E4886 | MSH 672 to 61320 hours (7 years) |
| FRESH FROZEN PLASMA | E4888 | MSH 672 to 61320 hours (7 years) |
| FRESH FROZEN PLASMA | E4890 | MSH 672 to 61320 hours (7 years) |
| FRESH FROZEN PLASMA | E4892 | MSH 672 to 61320 hours (7 years) |
| FRESH FROZEN PLASMA | E4894 | MSH 672 to 61320 hours (7 years) |
| FRESH FROZEN PLASMA | E4896 | MSH 672 to 61320 hours (7 years) |
| FRESH FROZEN PLASMA | E4898 | MSH 672 to 61320 hours (7 years) |
| FRESH FROZEN PLASMA | E4900 | MSH 672 to 61320 hours (7 years) |
| FRESH FROZEN PLASMA | E4902 | MSH 672 to 61320 hours (7 years) |
| FRESH FROZEN PLASMA | E4904 | MSH 672 to 61320 hours (7 years) |
| FRESH FROZEN PLASMA | E5332 | PV 450 to 225 |
| FRESH FROZEN PLASMA | E5333 | PV 450 to 225 |
| FRESH FROZEN PLASMA | E5336 | PV 450 to 225 |
| FRESH FROZEN PLASMA | E5378 | MSH 672 to 8760 |
| FRESH FROZEN PLASMA | E5636 | PV 500 to 225 |
| FRESH FROZEN PLASMA | E5637 | PV 500 to 225 |
| FRESH FROZEN PLASMA | E5682 | PV 450 to 225 |
| FRESH FROZEN PLASMA | E5688 | PV 450 to 225 |
| FRESH FROZEN PLASMA | E5689 | PV 450 to 225 |
| FRESH FROZEN PLASMA | E5690 | PV 450 to 225 |
| FROZEN POOLED SERUM | E3986 | MSH to 8760 hours (1 year) |
| FROZEN POOLED SERUM | E5146 | MSH to 8760 hours (1 year) |
| FROZEN RED BLOOD CELLS | 27322 | PV 450 to 200 |
| FROZEN RED BLOOD CELLS | 27323 | PV 450 to 200 |
| FROZEN RED BLOOD CELLS | 27324 | PV 450 to 200 |
| FROZEN RED BLOOD CELLS | 27325 | PV 450 to 200 |
| FROZEN RED BLOOD CELLS | 27326 | PV 450 to 200 |
| FROZEN RED BLOOD CELLS | 27327 | PV 450 to 200 |
| FROZEN RED BLOOD CELLS | 27328 | PV 450 to 200 |
| FROZEN RED BLOOD CELLS | 27329 | PV 450 to 200 |
| FROZEN RED BLOOD CELLS | 27330 | PV 450 to 200 |
| FROZEN RED BLOOD CELLS | 27331 | PV 450 to 200 |
| FROZEN RED BLOOD CELLS | 27332 | PV 450 to 200 |
| FROZEN RED BLOOD CELLS | 27333 | PV 450 to 200 |
| FROZEN RED BLOOD CELLS | E4523 | PV 450 to 200 |
| FROZEN RED BLOOD CELLS | E5651 | PV 450 to 200 |
| FROZEN RED BLOOD CELLS | E5711 | PV 450 to 200 |
| FROZEN RED BLOOD CELLS | E5712 | PV 450 to 200 |
| GRANULOCYTES | E5511 | MSH to 4 hours |
| GRANULOCYTES | E5512 | MSH to 4 hours |
| LEUKOCYTES | 16401 | MSH to 24 hours |
| LEUKOCYTES | 20101 | MSH to 24 hours |
| LEUKOCYTES | 20111 | MSH to 24 hours |
| LEUKOCYTES | 20201 | MSH to 24 hours |
| LEUKOCYTES | 20211 | MSH to 24 hours |
| LEUKOCYTES | 20301 | MSH to 24 hours |
| LEUKOCYTES | 20311 | MSH to 24 hours |
| LEUKOCYTES | 27587 | MSH to 24 hours |
| LEUKOCYTES | 27637 | MSH to 24 hours |
| LEUKOCYTES | 27639 | MSH to 24 hours |
| LEUKOCYTES | 27649 | MSH to 24 hours |
| LEUKOCYTES | 27651 | MSH to 24 hours |
| LEUKOCYTES | 27715 | MSH to 24 hours |
| LEUKOCYTES | 27716 | MSH to 24 hours |
| LEUKOCYTES | 27720 | MSH to 24 hours |
| LEUKOCYTES | 27722 | MSH to 24 hours |
| LEUKOCYTES | E3697 | MSH to 24 hours |
| LEUKOCYTES | E3698 | MSH to 24 hours |
| LEUKOCYTES | E3699 | MSH to 24 hours |
| LEUKOCYTES | E3700 | MSH to 24 hours |
| LEUKOCYTES | E3702 | MSH to 24 hours |
| LEUKOCYTES | E3703 | MSH to 24 hours |
| LEUKOCYTES | E3704 | MSH to 24 hours |
| LEUKOCYTES | E3705 | MSH to 24 hours |
| LEUKOCYTES | E3707 | MSH to 24 hours |
| LEUKOCYTES | E3708 | MSH to 24 hours |
| LEUKOCYTES | E3709 | MSH to 24 hours |
| LEUKOCYTES | E3710 | MSH to 24 hours |
| LEUKOCYTES | E3712 | MSH to 24 hours |
| LEUKOCYTES | E3713 | MSH to 24 hours |
| LEUKOCYTES | E3714 | MSH to 24 hours |
| LEUKOCYTES | E3715 | MSH to 24 hours |
| LEUKOCYTES | E3717 | MSH to 24 hours |
| LEUKOCYTES | E3718 | MSH to 24 hours |
| LEUKOCYTES | E3719 | MSH to 24 hours |
| LEUKOCYTES | E3720 | MSH to 24 hours |
| LEUKOCYTES | E3722 | MSH to 24 hours |
| LEUKOCYTES | E3723 | MSH to 24 hours |
| LEUKOCYTES | E3724 | MSH to 24 hours |
| LEUKOCYTES | E3725 | MSH to 24 hours |
| LEUKOCYTES | E3727 | MSH to 24 hours |
| LEUKOCYTES | E3728 | MSH to 24 hours |
| LEUKOCYTES | E3729 | MSH to 24 hours |
| LEUKOCYTES | E3730 | MSH to 24 hours |
| LEUKOCYTES | E3732 | MSH to 24 hours |
| LEUKOCYTES | E3733 | MSH to 24 hours |
| LEUKOCYTES | E3734 | MSH to 24 hours |
| LEUKOCYTES | E3735 | MSH to 24 hours |
| LEUKOCYTES | E3737 | MSH to 24 hours |
| LEUKOCYTES | E3738 | MSH to 24 hours |
| LEUKOCYTES | E3739 | MSH to 24 hours |
| LEUKOCYTES | E3740 | MSH to 24 hours |
| LEUKOCYTES | E3742 | MSH to 24 hours |
| LEUKOCYTES | E3743 | MSH to 24 hours |
| LEUKOCYTES | E3744 | MSH to 24 hours |
| LEUKOCYTES | E3745 | MSH to 24 hours |
| LEUKOCYTES | E3747 | MSH to 24 hours |
| LEUKOCYTES | E3748 | MSH to 24 hours |
| LEUKOCYTES | E3749 | MSH to 24 hours |
| LEUKOCYTES | E3750 | MSH to 24 hours |
| LEUKOCYTES | E3752 | MSH to 24 hours |
| LEUKOCYTES | E3753 | MSH to 24 hours |
| LEUKOCYTES | E3754 | MSH to 24 hours |
| LEUKOCYTES | E3755 | MSH to 24 hours |
| LEUKOCYTES | E5317 | PV 500 to 200 MSH to 24 hours |
| LEUKOCYTES | E5318 | PV 500 to 200 MSH to 24 hours |
| LEUKOCYTES | E5460 | MSH to 24 hours |
| LEUKOCYTES | E5461 | MSH to 24 hours |
| LEUKOCYTES | E5462 | MSH to 24 hours |
| LEUKOCYTES | E5463 | MSH to 24 hours |
| LEUKOCYTES | E5551 | MSH to 24 hours |
| LEUKOCYTES | E5552 | MSH to 24 hours |
| LEUKOCYTES | E5580 | MSH to 24 hours |
| LEUKOCYTES | E5618 | MSH to 24 hours |
| LEUKOCYTES | E6034 | MSH to 24 hours |
| LEUKOCYTES | E6035 | MSH to 24 hours |
| LEUKOCYTES | E6080 | MSH to 24 hours |
| LEUKOCYTES | E6081 | MSH to 24 hours |
| LEUKOCYTES | E6082 | MSH to 24 hours |
| PLATELET-RICH BUFFY COAT | E3817 | MSH to 24 hours |
| PLATELET-RICH BUFFY COAT | E3818 | MSH to 24 hours |
| PLATELET-RICH BUFFY COAT | E3819 | MSH to 24 hours |
| PLATELET-RICH BUFFY COAT | E3820 | MSH to 24 hours |
| PLATELET-RICH BUFFY COAT | E3831 | MSH to 24 hours |
| PLATELET-RICH BUFFY COAT | E3935 | MSH to 24 hours |
| PLATELET-RICH BUFFY COAT | E5274 | MSH to 24 hours |
| PLATELET-RICH PLASMA | 12301 | PV 225 to 200 |
| PLATELETS | 27682 | PV 50 to 15 |
| PLATELETS | 27683 | PV 50 to 15 |
| PLATELETS | 27685 | PV 50 to 15 |
| PLATELETS | 27686 | PV 50 to 15 |
| PLATELETS | E4624 | MSH 120 to 4 |
| PLATELETS | E5344 | PV 50 to 15 |
| PLATELETS | E5345 | PV 50 to 15 |
| PLATELETS | E5346 | PV 50 to 15 |
| PLATELETS | E5347 | PV 50 to 15 |
| PLATELETS | E5381 | MSH 24 to 4 |
| PLATELETS | E5613 | PV 500 to 15 |
| PLATELETS | E5614 | PV 500 to 15 |
| PLATELETS | E5779 | PV 500 to 50 |
| POOLED GRANULOCYTES | E3679 | MSH to 4 hours |
| POOLED GRANULOCYTES | E3680 | MSH to 4 hours |
| POOLED GRANULOCYTES | E3681 | MSH to 4 hours |
| POOLED GRANULOCYTES | E3682 | MSH to 4 hours |
| POOLED GRANULOCYTES | E3683 | MSH to 4 hours |
| POOLED GRANULOCYTES | E3684 | MSH to 4 hours |
| POOLED GRANULOCYTES | E3685 | MSH to 4 hours |
| POOLED GRANULOCYTES | E3686 | MSH to 4 hours |
| POOLED GRANULOCYTES | E3687 | MSH to 4 hours |
| POOLED GRANULOCYTES | E3688 | MSH to 4 hours |
| POOLED GRANULOCYTES | E3689 | MSH to 4 hours |
| POOLED GRANULOCYTES | E3690 | MSH to 4 hours |
| POOLED GRANULOCYTES | E3967 | MSH to 4 hours |
| POOLED GRANULOCYTES | E3987 | MSH to 4 hours |
| POOLED GRANULOCYTES | E3988 | MSH to 4 hours |
| POOLED GRANULOCYTES | E3989 | MSH to 4 hours |
| POOLED GRANULOCYTES | E3990 | MSH to 4 hours |
| POOLED GRANULOCYTES | E3991 | MSH to 4 hours |
| POOLED PLASMA | E4991 | Added "|" between "refg" and "Open" in ProductName |
| POOLED PLATELET-RICH BUFFY COAT | E3832 | MSH to 4 hours |
| POOLED PLATELET-RICH BUFFY COAT | E3833 | MSH to 4 hours |
| POOLED PLATELET-RICH BUFFY COAT | E6039 | MSH to 4 hours |
| POOLED PLATELET-RICH BUFFY COAT | E6040 | MSH to 4 hours |
| POOLED PLATELETS | 12064 | MSH to 4 hours |
| POOLED PLATELETS | 12065 | MSH to 4 hours |
| POOLED PLATELETS | E5279 | MSH to 4 hours |
| POOLED PLATELETS | E5280 | MSH to 4 hours |
| POOLED PLATELETS | E5297 | MSH 120 to 4 |
| POOLED PLATELETS | E5395 | MSH to 4 hours |
| POOLED PLATELETS | E5396 | MSH to 4 hours |
| POOLED PLATELETS | E6001 | MSH to 4 hours |
| POOLED PLATELETS | E6013 | MSH to 4 hours |
| POOLED PLATELETS | E6014 | MSH to 4 hours |
| POOLED PLATELETS | E6016 | MSH to 4 hours |
| POOLED PLATELETS | E6017 | MSH to 4 hours |
| POOLED SERUM | E5144 | MSH to 24 hours |
| RED BLOOD CELLS | 04055 | MSH 672 to 504 |
| RED BLOOD CELLS | 04254 | MSH 672 to 1008 |
| RED BLOOD CELLS | 04355 | MSH 672 to 504 |
| RED BLOOD CELLS | 04750 | MSH 1008 to 840 |
| RED BLOOD CELLS | 05050 | MSH 672 to 504 |
| RED BLOOD CELLS | 05051 | MSH 672 to 504 |
| RED BLOOD CELLS | 05055 | MSH 672 to 504 |
| RED BLOOD CELLS | 05080 | MSH 672 to 504 |
| RED BLOOD CELLS | 05350 | MSH 672 to 504 |
| RED BLOOD CELLS | 05351 | MSH 672 to 504 |
| RED BLOOD CELLS | 05355 | MSH 672 to 504 |
| RED BLOOD CELLS | 05380 | MSH 672 to 504 |
| RED BLOOD CELLS | 24001 | PV 250 to 350 and MSH 672 to 504 hours (21 days) |
| RED BLOOD CELLS | 25001 | PV 250 to 350 and MSH 672 to 504 hours (21 days) |
| RED BLOOD CELLS | 27135 | PV 450 to 250 |
| RED BLOOD CELLS | 27136 | PV 450 to 250 |
| RED BLOOD CELLS | 27137 | PV 450 to 250 |
| RED BLOOD CELLS | 27138 | PV 450 to 250 and MSH 672 to 504 |
| RED BLOOD CELLS | 27139 | PV 450 to 250 |
| RED BLOOD CELLS | 27140 | PV 450 to 250 |
| RED BLOOD CELLS | 27141 | PV 450 to 250 |
| RED BLOOD CELLS | 27142 | PV 450 to 250 |
| RED BLOOD CELLS | 27143 | PV 450 to 250 |
| RED BLOOD CELLS | 27144 | PV 450 to 250 |
| RED BLOOD CELLS | 27145 | PV 450 to 250 |
| RED BLOOD CELLS | 27146 | PV 450 to 250 |
| RED BLOOD CELLS | 27147 | PV 450 to 250 |
| RED BLOOD CELLS | 27148 | PV 450 to 250 |
| RED BLOOD CELLS | 27149 | PV 450 to 250 |
| RED BLOOD CELLS | 27150 | PV 450 to 250 |
| RED BLOOD CELLS | 27151 | PV 450 to 250 |
| RED BLOOD CELLS | 27152 | PV 450 to 250 |
| RED BLOOD CELLS | 27153 | PV 450 to 250 |
| RED BLOOD CELLS | 27154 | PV 450 to 250 |
| RED BLOOD CELLS | 27155 | PV 450 to 250 |
| RED BLOOD CELLS | 27156 | PV 450 to 250 |
| RED BLOOD CELLS | 27157 | PV 450 to 250 and MSH 672 to 504 |
| RED BLOOD CELLS | 27158 | PV 450 to 250 and MSH 672 to 504 |
| RED BLOOD CELLS | 27159 | PV 450 to 250 and MSH 672 to 504 |
| RED BLOOD CELLS | 27160 | PV 450 to 250 and MSH 672 to 504 |
| RED BLOOD CELLS | 27161 | PV 450 to 250 |
| RED BLOOD CELLS | 27162 | PV 450 to 250 |
| RED BLOOD CELLS | 27163 | PV 450 to 250 |
| RED BLOOD CELLS | 27164 | PV 450 to 250 |
| RED BLOOD CELLS | 27165 | PV 450 to 250 |
| RED BLOOD CELLS | 27174 | MSH 672 to 504 |
| RED BLOOD CELLS | 27175 | MSH 672 to 504 |
| RED BLOOD CELLS | 27178 | PV 450 to 250 |
| RED BLOOD CELLS | 27179 | PV 450 to 250 |
| RED BLOOD CELLS | 27180 | PV 450 to 250 |
| RED BLOOD CELLS | 27181 | PV 450 to 250 |
| RED BLOOD CELLS | 27182 | PV 450 to 250 |
| RED BLOOD CELLS | 27183 | PV 450 to 250 |
| RED BLOOD CELLS | 27184 | PV 450 to 250 |
| RED BLOOD CELLS | 27185 | PV 450 to 250 |
| RED BLOOD CELLS | 27186 | PV 450 to 250 |
| RED BLOOD CELLS | 27187 | PV 450 to 250 |
| RED BLOOD CELLS | 27188 | PV 450 to 250 |
| RED BLOOD CELLS | 27189 | PV 450 to 250 |
| RED BLOOD CELLS | 27190 | PV 450 to 250 |
| RED BLOOD CELLS | 27191 | PV 450 to 250 |
| RED BLOOD CELLS | 27192 | PV 450 to 250 |
| RED BLOOD CELLS | 27193 | PV 450 to 250 |
| RED BLOOD CELLS | 27194 | PV 450 to 250 |
| RED BLOOD CELLS | 27195 | PV 450 to 250 |
| RED BLOOD CELLS | 27196 | PV 450 to 250 |
| RED BLOOD CELLS | 27197 | PV 450 to 250 |
| RED BLOOD CELLS | 27198 | PV 450 to 250 |
| RED BLOOD CELLS | 27199 | PV 450 to 250 |
| RED BLOOD CELLS | 27200 | PV 450 to 250 |
| RED BLOOD CELLS | 27201 | PV 450 to 250 |
| RED BLOOD CELLS | 27202 | PV 450 to 250 |
| RED BLOOD CELLS | 27203 | PV 450 to 250 |
| RED BLOOD CELLS | 27204 | PV 450 to 250 |
| RED BLOOD CELLS | 27205 | PV 450 to 250 |
| RED BLOOD CELLS | 27206 | PV 450 to 250 |
| RED BLOOD CELLS | 27207 | PV 450 to 250 |
| RED BLOOD CELLS | 27208 | PV 450 to 250 |
| RED BLOOD CELLS | 27209 | PV 450 to 250 |
| RED BLOOD CELLS | 27220 | MSH 840 to 672 |
| RED BLOOD CELLS | 27221 | MSH 840 to 672 |
| RED BLOOD CELLS | 27224 | PV 450 to 250 |
| RED BLOOD CELLS | 27225 | PV 450 to 250 |
| RED BLOOD CELLS | 27226 | PV 450 to 250 |
| RED BLOOD CELLS | 27227 | PV 450 to 250 |
| RED BLOOD CELLS | 27228 | PV 450 to 250 |
| RED BLOOD CELLS | 27229 | PV 450 to 250 |
| RED BLOOD CELLS | 27230 | PV 450 to 250 |
| RED BLOOD CELLS | 27231 | PV 450 to 250 |
| RED BLOOD CELLS | 27232 | PV 450 to 250 |
| RED BLOOD CELLS | 27233 | PV 450 to 250 |
| RED BLOOD CELLS | 27234 | PV 450 to 250 |
| RED BLOOD CELLS | 27235 | PV 450 to 250 and MSH 672 to 504 |
| RED BLOOD CELLS | 27236 | PV 450 to 250 and MSH 672 to 504 |
| RED BLOOD CELLS | 27237 | PV 450 to 250 and MSH 672 to 504 |
| RED BLOOD CELLS | 27238 | PV 450 to 250 |
| RED BLOOD CELLS | 27239 | PV 450 to 250 |
| RED BLOOD CELLS | 27240 | PV 450 to 250 |
| RED BLOOD CELLS | 27241 | PV 450 to 250 |
| RED BLOOD CELLS | 27242 | PV 450 to 350 |
| RED BLOOD CELLS | 27243 | PV 450 to 350 |
| RED BLOOD CELLS | 27244 | PV 450 to 350 |
| RED BLOOD CELLS | 27245 | PV 450 to 350 |
| RED BLOOD CELLS | 27246 | PV 450 to 350 |
| RED BLOOD CELLS | 27247 | PV 450 to 350 |
| RED BLOOD CELLS | 27248 | PV 450 to 350 |
| RED BLOOD CELLS | 27249 | PV 450 to 350 |
| RED BLOOD CELLS | 27250 | PV 450 to 350 |
| RED BLOOD CELLS | 27251 | PV 450 to 350 |
| RED BLOOD CELLS | 27252 | PV 450 to 350 |
| RED BLOOD CELLS | 27253 | PV 450 to 350 |
| RED BLOOD CELLS | 27254 | PV 450 to 350 |
| RED BLOOD CELLS | 27255 | PV 450 to 350 |
| RED BLOOD CELLS | 27256 | PV 450 to 350 |
| RED BLOOD CELLS | 27257 | PV 450 to 350 |
| RED BLOOD CELLS | 27258 | PV 450 to 350 |
| RED BLOOD CELLS | 27259 | PV 450 to 350 |
| RED BLOOD CELLS | 27260 | PV 450 to 350 |
| RED BLOOD CELLS | 27261 | PV 450 to 350 |
| RED BLOOD CELLS | 27262 | PV 450 to 350 |
| RED BLOOD CELLS | 27263 | PV 450 to 350 |
| RED BLOOD CELLS | 27264 | PV 450 to 350 |
| RED BLOOD CELLS | 27265 | PV 450 to 350 |
| RED BLOOD CELLS | 27266 | PV 450 to 350 |
| RED BLOOD CELLS | 27267 | PV 450 to 350 |
| RED BLOOD CELLS | 27268 | PV 450 to 350 |
| RED BLOOD CELLS | 27269 | PV 450 to 350 |
| RED BLOOD CELLS | 27270 | PV 450 to 350 |
| RED BLOOD CELLS | 27271 | PV 450 to 350 |
| RED BLOOD CELLS | 27272 | PV 450 to 350 |
| RED BLOOD CELLS | 27273 | PV 450 to 350 |
| RED BLOOD CELLS | 27274 | PV 450 to 350 |
| RED BLOOD CELLS | 27275 | PV 450 to 350 |
| RED BLOOD CELLS | 27276 | PV 450 to 350 |
| RED BLOOD CELLS | 27277 | PV 450 to 350 |
| RED BLOOD CELLS | 27278 | PV 450 to 350 |
| RED BLOOD CELLS | 27279 | PV 450 to 350 |
| RED BLOOD CELLS | 27280 | PV 450 to 350 |
| RED BLOOD CELLS | 27281 | PV 450 to 350 |
| RED BLOOD CELLS | 27282 | PV 450 to 350 |
| RED BLOOD CELLS | 27283 | PV 450 to 350 |
| RED BLOOD CELLS | 27284 | PV 500 to 350 |
| RED BLOOD CELLS | 27285 | PV 500 to 350 |
| RED BLOOD CELLS | 27286 | PV 500 to 350 and MSH 1008 to 672 |
| RED BLOOD CELLS | 27287 | PV 500 to 350 and MSH 1008 to 672 |
| RED BLOOD CELLS | 27636 | MSH 672 to 504 |
| RED BLOOD CELLS | 27638 | MSH 672 to 504 |
| RED BLOOD CELLS | 34051 | MSH 672 to 504 |
| RED BLOOD CELLS | 34052 | MSH 672 to 504 |
| RED BLOOD CELLS | 34053 | MSH 672 to 504 |
| RED BLOOD CELLS | 34054 | MSH 672 to 504 |
| RED BLOOD CELLS | 34055 | MSH 672 to 504 |
| RED BLOOD CELLS | 34056 | MSH 672 to 504 |
| RED BLOOD CELLS | 34057 | MSH 672 to 504 |
| RED BLOOD CELLS | 34058 | MSH 672 to 504 |
| RED BLOOD CELLS | 34351 | MSH 672 to 504 |
| RED BLOOD CELLS | 34352 | MSH 672 to 504 |
| RED BLOOD CELLS | 34353 | MSH 672 to 504 |
| RED BLOOD CELLS | 34354 | MSH 672 to 504 |
| RED BLOOD CELLS | 34355 | MSH 672 to 504 |
| RED BLOOD CELLS | 34356 | MSH 672 to 504 |
| RED BLOOD CELLS | 34357 | MSH 672 to 504 |
| RED BLOOD CELLS | 34358 | MSH 672 to 504 |
| RED BLOOD CELLS | 35051 | MSH 672 to 504 |
| RED BLOOD CELLS | 35052 | MSH 672 to 504 |
| RED BLOOD CELLS | 35053 | MSH 672 to 504 |
| RED BLOOD CELLS | 35054 | MSH 672 to 504 |
| RED BLOOD CELLS | 35055 | MSH 672 to 504 |
| RED BLOOD CELLS | 35056 | MSH 672 to 504 |
| RED BLOOD CELLS | 35057 | MSH 672 to 504 |
| RED BLOOD CELLS | 35058 | MSH 672 to 504 |
| RED BLOOD CELLS | 35081 | MSH 672 to 504 |
| RED BLOOD CELLS | 35082 | MSH 672 to 504 |
| RED BLOOD CELLS | 35083 | MSH 672 to 504 |
| RED BLOOD CELLS | 35084 | MSH 672 to 504 |
| RED BLOOD CELLS | 35085 | MSH 672 to 504 |
| RED BLOOD CELLS | 35086 | MSH 672 to 504 |
| RED BLOOD CELLS | 35087 | MSH 672 to 504 |
| RED BLOOD CELLS | 35088 | MSH 672 to 504 |
| RED BLOOD CELLS | 35351 | MSH 672 to 504 |
| RED BLOOD CELLS | 35352 | MSH 672 to 504 |
| RED BLOOD CELLS | 35353 | MSH 672 to 504 |
| RED BLOOD CELLS | 35354 | MSH 672 to 504 |
| RED BLOOD CELLS | 35355 | MSH 672 to 504 |
| RED BLOOD CELLS | 35356 | MSH 672 to 504 |
| RED BLOOD CELLS | 35357 | MSH 672 to 504 |
| RED BLOOD CELLS | 35358 | MSH 672 to 504 |
| RED BLOOD CELLS | 35381 | MSH 672 to 504 |
| RED BLOOD CELLS | 35382 | MSH 672 to 504 |
| RED BLOOD CELLS | 35383 | MSH 672 to 504 |
| RED BLOOD CELLS | 35384 | MSH 672 to 504 |
| RED BLOOD CELLS | 35385 | MSH 672 to 504 |
| RED BLOOD CELLS | 35386 | MSH 672 to 504 |
| RED BLOOD CELLS | 35387 | MSH 672 to 504 |
| RED BLOOD CELLS | 35388 | MSH 672 to 504 |
| RED BLOOD CELLS | E0142 | MSH 672 to 504 |
| RED BLOOD CELLS | E0143 | MSH 672 to 504 |
| RED BLOOD CELLS | E0144 | MSH 672 to 504 |
| RED BLOOD CELLS | E0145 | MSH 672 to 504 |
| RED BLOOD CELLS | E0146 | MSH 672 to 504 |
| RED BLOOD CELLS | E0147 | MSH 672 to 504 |
| RED BLOOD CELLS | E0148 | MSH 672 to 504 |
| RED BLOOD CELLS | E0149 | MSH 672 to 504 |
| RED BLOOD CELLS | E0150 | MSH 672 to 504 |
| RED BLOOD CELLS | E0151 | MSH 672 to 504 |
| RED BLOOD CELLS | E0152 | MSH 672 to 504 |
| RED BLOOD CELLS | E0153 | MSH 672 to 504 |
| RED BLOOD CELLS | E0161 | MSH 672 to 504 |
| RED BLOOD CELLS | E0162 | MSH 672 to 504 |
| RED BLOOD CELLS | E0163 | MSH 672 to 504 |
| RED BLOOD CELLS | E0164 | MSH 672 to 504 |
| RED BLOOD CELLS | E0165 | MSH 672 to 504 |
| RED BLOOD CELLS | E0166 | MSH 672 to 504 |
| RED BLOOD CELLS | E0167 | MSH 672 to 504 |
| RED BLOOD CELLS | E0168 | MSH 672 to 504 |
| RED BLOOD CELLS | E0169 | MSH 672 to 504 |
| RED BLOOD CELLS | E0170 | MSH 672 to 504 |
| RED BLOOD CELLS | E0178 | MSH 672 to 504 |
| RED BLOOD CELLS | E0179 | MSH 672 to 504 |
| RED BLOOD CELLS | E0180 | MSH 672 to 504 |
| RED BLOOD CELLS | E0181 | MSH 672 to 504 |
| RED BLOOD CELLS | E0182 | MSH 672 to 504 |
| RED BLOOD CELLS | E0183 | MSH 672 to 504 |
| RED BLOOD CELLS | E0184 | MSH 672 to 504 |
| RED BLOOD CELLS | E0185 | MSH 672 to 504 |
| RED BLOOD CELLS | E0186 | MSH 672 to 504 |
| RED BLOOD CELLS | E0187 | MSH 672 to 504 |
| RED BLOOD CELLS | E0188 | MSH 672 to 504 |
| RED BLOOD CELLS | E0189 | MSH 672 to 504 |
| RED BLOOD CELLS | E0190 | MSH 672 to 504 |
| RED BLOOD CELLS | E0191 | MSH 672 to 504 |
| RED BLOOD CELLS | E0192 | MSH 672 to 504 |
| RED BLOOD CELLS | E0193 | MSH 672 to 504 |
| RED BLOOD CELLS | E0194 | MSH 672 to 504 |
| RED BLOOD CELLS | E0256 | MSH 672 to 504 |
| RED BLOOD CELLS | E0257 | MSH 672 to 504 |
| RED BLOOD CELLS | E0258 | MSH 672 to 504 |
| RED BLOOD CELLS | E0273 | MSH 672 to 504 |
| RED BLOOD CELLS | E0274 | MSH 672 to 504 |
| RED BLOOD CELLS | E0275 | MSH 672 to 504 |
| RED BLOOD CELLS | E0288 | MSH 672 to 504 |
| RED BLOOD CELLS | E0289 | MSH 672 to 504 |
| RED BLOOD CELLS | E0290 | MSH 672 to 504 |
| RED BLOOD CELLS | E0429 | PV 450 to 350 and MSH 1008 to 840 |
| RED BLOOD CELLS | E0430 | PV 450 to 350 and MSH 1008 to 840 |
| RED BLOOD CELLS | E0431 | PV 450 to 350 and MSH 1008 to 840 |
| RED BLOOD CELLS | E0432 | PV 450 to 350 and MSH 1008 to 840 |
| RED BLOOD CELLS | E0433 | PV 450 to 350 |
| RED BLOOD CELLS | E0434 | PV 450 to 350 |
| RED BLOOD CELLS | E0435 | PV 450 to 350 |
| RED BLOOD CELLS | E0436 | PV 450 to 350 |
| RED BLOOD CELLS | E0437 | PV 450 to 350 |
| RED BLOOD CELLS | E0438 | PV 450 to 350 |
| RED BLOOD CELLS | E0439 | PV 450 to 350 and MSH 1008 to 840 |
| RED BLOOD CELLS | E0440 | MSH 1008 to 840 |
| RED BLOOD CELLS | E0441 | MSH 1008 to 840 |
| RED BLOOD CELLS | E0442 | MSH 1008 to 840 |
| RED BLOOD CELLS | E0443 | MSH 1008 to 840 |
| RED BLOOD CELLS | E0450 | MSH 1008 to 840 |
| RED BLOOD CELLS | E3844 | PV 450 to 350 and MSH 1008 to 840 |
| RED BLOOD CELLS | E3845 | PV 450 to 350 |
| RED BLOOD CELLS | E3846 | PV 450 to 350 and MSH 1008 to 840 |
| RED BLOOD CELLS | E3847 | PV 450 to 350 |
| RED BLOOD CELLS | E3848 | PV 450 to 350 and MSH 1008 to 840 |
| RED BLOOD CELLS | E3849 | PV 450 to 350 |
| RED BLOOD CELLS | E3850 | PV 450 to 350 and MSH 1008 to 840 |
| RED BLOOD CELLS | E3936 | Added "|" between "refg" and "Irradiated" in ProductName |
| RED BLOOD CELLS | E3936 | MSH 672 to 504 |
| RED BLOOD CELLS | E3937 | MSH 672 to 504 |
| RED BLOOD CELLS | E3938 | MSH 672 to 504 |
| RED BLOOD CELLS | E4033 | MSH 672 to 504 |
| RED BLOOD CELLS | E4037 | MSH 672 to 504 |
| RED BLOOD CELLS | E4038 | MSH 672 to 504 |
| RED BLOOD CELLS | E4046 | PV 450 to 350 and MSH 1008 to 840 |
| RED BLOOD CELLS | E4076 | PV 450 to 350 |
| RED BLOOD CELLS | E4115 | PV 450 to 350 |
| RED BLOOD CELLS | E4116 | PV 450 to 350 and MSH 1008 to 840 |
| RED BLOOD CELLS | E4139 | PV 450 to 350 and MSH 1008 to 840 |
| RED BLOOD CELLS | E4156 | PV 1 to 350 |
| RED BLOOD CELLS | E4157 | PV 1 to 350 |
| RED BLOOD CELLS | E4158 | PV 1 to 350 |
| RED BLOOD CELLS | E4159 | PV 450 to 350 and MSH 1008 to 840 |
| RED BLOOD CELLS | E4160 | PV 450 to 350 |
| RED BLOOD CELLS | E4161 | PV 1 to 350 and MSH 1008 to 840 |
| RED BLOOD CELLS | E4210 | PV 450 to 350 |
| RED BLOOD CELLS | E4397 | PV 450 to 350 |
| RED BLOOD CELLS | E4400 | PV 450 to 350 |
| RED BLOOD CELLS | E4906 | MSH 672 to 504 |
| RED BLOOD CELLS | E4908 | MSH 672 to 504 |
| RED BLOOD CELLS | E4910 | MSH 672 to 504 |
| RED BLOOD CELLS | E4912 | MSH 672 to 504 |
| RED BLOOD CELLS | E4914 | MSH 672 to 504 |
| RED BLOOD CELLS | E4916 | MSH 672 to 504 |
| RED BLOOD CELLS | E4918 | MSH 672 to 504 |
| RED BLOOD CELLS | E4920 | MSH 672 to 504 |
| RED BLOOD CELLS | E4922 | MSH 672 to 504 |
| RED BLOOD CELLS | E4924 | MSH 672 to 504 |
| RED BLOOD CELLS | E4926 | MSH 672 to 504 |
| RED BLOOD CELLS | E4928 | MSH 672 to 504 |
| RED BLOOD CELLS | E4930 | MSH 672 to 504 |
| RED BLOOD CELLS | E4932 | MSH 672 to 504 |
| RED BLOOD CELLS | E4934 | MSH 672 to 504 |
| RED BLOOD CELLS | E4936 | MSH 672 to 504 |
| RED BLOOD CELLS | E5059 | PV 450 to 350 |
| RED BLOOD CELLS | E5067 | MSH 672 to 504 |
| RED BLOOD CELLS | E5077 | PV 500 to 350 |
| RED BLOOD CELLS | E5129 | PV 350 to 250 and MSH 1008 to 504 |
| RED BLOOD CELLS | E5130 | PV 450 to 250 |
| RED BLOOD CELLS | E5131 | PV 450 to 250 |
| RED BLOOD CELLS | E5132 | PV 350 to 250 and MSH 1008 to 504 |
| RED BLOOD CELLS | E5133 | PV 350 to 250 |
| RED BLOOD CELLS | E5134 | PV 450 to 250 |
| RED BLOOD CELLS | E5135 | PV 450 to 250 |
| RED BLOOD CELLS | E5136 | PV 350 to 250 and MSH 672 to 504 |
| RED BLOOD CELLS | E5137 | PV 350 to 250 |
| RED BLOOD CELLS | E5138 | PV 450 to 350 |
| RED BLOOD CELLS | E5139 | PV 450 to 350 |
| RED BLOOD CELLS | E5154 | PV 250 to 350 |
| RED BLOOD CELLS | E5159 | PV 250 to 350 |
| RED BLOOD CELLS | E5161 | MSH 672 to 504 |
| RED BLOOD CELLS | E5164 | PV 250 to 350 |
| RED BLOOD CELLS | E5167 | PV 250 to 350 and MSH 504 to 672 |
| RED BLOOD CELLS | E5239 | PV 450 to 250 |
| RED BLOOD CELLS | E5247 | PV 350 to 250 |
| RED BLOOD CELLS | E5252 | PV 350 to 250 and MSH 672 to 504 |
| RED BLOOD CELLS | E5253 | PV 350 to 250 and MSH 672 to 504 |
| RED BLOOD CELLS | E5258 | PV 450 to 350 and MSH 1008 to 840 |
| RED BLOOD CELLS | E5259 | PV 450 to 350 and MSH 1008 to 840 |
| RED BLOOD CELLS | E5260 | PV 450 to 350 |
| RED BLOOD CELLS | E5261 | PV 450 to 350 |
| RED BLOOD CELLS | E5339 | PV 500 to 350 and MSH 504 to 1008 |
| RED BLOOD CELLS | E5360 | PV 350 to 250 and MSH 8760 to 504 |
| RED BLOOD CELLS | E5361 | PV 350 to 250 and MSH 672 to 504 |
| RED BLOOD CELLS | E5364 | MSH 672 to 504 |
| RED BLOOD CELLS | E5365 | MSH 2008 to 504 |
| RED BLOOD CELLS | E5366 | PV 250 to 350 |
| RED BLOOD CELLS | E5367 | PV 250 to 350 |
| RED BLOOD CELLS | E5368 | PV 250 to 350 |
| RED BLOOD CELLS | E5369 | PV 250 to 350 |
| RED BLOOD CELLS | E5376 | MSH 840 to 672 |
| RED BLOOD CELLS | E5440 | PV 200 to 150 and MSH 504 to 1008 |
| RED BLOOD CELLS | E5441 | PV 200 to 150 and MSH 504 to 1008 |
| RED BLOOD CELLS | E5442 | PV 200 to 150 |
| RED BLOOD CELLS | E5443 | PV 200 to 150 |
| RED BLOOD CELLS | E5444 | PV 200 to 150 and MSH 504 to 1008 |
| RED BLOOD CELLS | E5445 | PV 200 to 150 and MSH 504 to 1008 |
| RED BLOOD CELLS | E5446 | PV 200 to 150 |
| RED BLOOD CELLS | E5447 | PV 200 to 150 |
| RED BLOOD CELLS | E5497 | MSH 672 to 504 |
| RED BLOOD CELLS | E5500 | MSH 672 to 504 |
| RED BLOOD CELLS | E5517 | MSH 1008 to 840 |
| RED BLOOD CELLS | E5553 | MSH 672 to 504 |
| RED BLOOD CELLS | E5556 | MSH 672 to 504 |
| RED BLOOD CELLS | E5557 | MSH 672 to 504 |
| RED BLOOD CELLS | E5558 | MSH 672 to 504 |
| RED BLOOD CELLS | E5585 | PV 450 to 250 |
| RED BLOOD CELLS | E5586 | PV 450 to 250 and MSH 672 to 504 |
| RED BLOOD CELLS | E5590 | PV 500 to 350 |
| RED BLOOD CELLS | E5591 | PV 500 to 350 |
| RED BLOOD CELLS | E5598 | PV 500 to 350 |
| RED BLOOD CELLS | E5608 | PV 450 to 350 |
| RED BLOOD CELLS | E5609 | PV 450 to 350 |
| RED BLOOD CELLS | E5610 | PV 450 to 350 |
| RED BLOOD CELLS | E5626 | PV 450 to 250 |
| RED BLOOD CELLS | E5627 | PV 500 to 250 |
| RED BLOOD CELLS | E5643 | PV 450 to 250 and MSH 672 to 24 |
| RED BLOOD CELLS | E5644 | PV 450 to 250 and MSH 504 to 24 |
| RED BLOOD CELLS | E5648 | PV 450 to 250 |
| RED BLOOD CELLS | E5670 | PV 500 to 250 |
| RED BLOOD CELLS | E5671 | PV 500 to 250 |
| RED BLOOD CELLS | E5672 | PV 500 to 250 |
| RED BLOOD CELLS | E5673 | PV 500 to 250 |
| RED BLOOD CELLS | E5674 | PV 500 to 250 |
| RED BLOOD CELLS | E5675 | PV 500 to 250 |
| RED BLOOD CELLS | E5676 | PV 500 to 250 |
| RED BLOOD CELLS | E5677 | PV 500 to 250 |
| RED BLOOD CELLS | E5678 | PV 500 to 250 |
| RED BLOOD CELLS | E5705 | PV 450 to 250 |
| RED BLOOD CELLS | E5706 | PV 450 to 250 and MSH 672 to 504 |
| RED BLOOD CELLS | E5707 | PV 450 to 250 and MSH 672 to 504 |
| RED BLOOD CELLS | E5726 | PV 500 to 250 |
| RED BLOOD CELLS | E5727 | PV 500 to 250 |
| RED BLOOD CELLS | E5746 | PV 500 to 250 |
| RED BLOOD CELLS | E5747 | PV 500 to 250 and MSH 840 to 672 |
| REJUVENATED RED BLOOD CELLS | 27386 | PV 450 to 200 |
| REJUVENATED RED BLOOD CELLS | 27387 | PV 450 to 200 |
| REJUVENATED RED BLOOD CELLS | 27388 | PV 450 to 200 |
| REJUVENATED RED BLOOD CELLS | 27389 | PV 450 to 200 |
| REJUVENATED RED BLOOD CELLS | 27390 | PV 250 to 200 |
| REJUVENATED RED BLOOD CELLS | 27391 | PV 250 to 200 |
| REJUVENATED RED BLOOD CELLS | 27392 | PV 250 to 200 |
| REJUVENATED RED BLOOD CELLS | 27393 | PV 250 to 200 |
| REJUVENATED RED BLOOD CELLS | 27394 | PV 250 to 200 |
| REJUVENATED RED BLOOD CELLS | 27395 | PV 250 to 200 |
| REJUVENATED RED BLOOD CELLS | 27396 | PV 250 to 200 |
| REJUVENATED RED BLOOD CELLS | 27397 | PV 250 to 200 |
| REJUVENATED RED BLOOD CELLS | 27398 | PV 250 to 200 |
| REJUVENATED RED BLOOD CELLS | 27399 | PV 250 to 200 |
| REJUVENATED RED BLOOD CELLS | 27400 | PV 250 to 200 |
| REJUVENATED RED BLOOD CELLS | E0571 | MSH 24 to 336 |
| REJUVENATED RED BLOOD CELLS | E0572 | MSH 24 to 336 |
| REJUVENATED RED BLOOD CELLS | E0580 | MSH 24 to 336 |
| REJUVENATED RED BLOOD CELLS | E0581 | MSH 24 to 336 |
| REJUVENATED RED BLOOD CELLS | E0582 | MSH 24 to 336 |
| REJUVENATED RED BLOOD CELLS | E0583 | MSH 24 to 336 |
| REJUVENATED RED BLOOD CELLS | E0584 | MSH 24 to 336 |
| REJUVENATED RED BLOOD CELLS | E0585 | MSH 24 to 336 |
| REJUVENATED RED BLOOD CELLS | E0586 | MSH 24 to 336 |
| REJUVENATED RED BLOOD CELLS | E0594 | MSH 24 to 336 |
| REJUVENATED RED BLOOD CELLS | E0595 | MSH 24 to 336 |
| REJUVENATED RED BLOOD CELLS | E0596 | MSH 24 to 336 |
| REJUVENATED RED BLOOD CELLS | E0597 | MSH 24 to 336 |
| REJUVENATED RED BLOOD CELLS | E0598 | MSH 24 to 336 |
| REJUVENATED RED BLOOD CELLS | E0599 | MSH 24 to 336 |
| REJUVENATED RED BLOOD CELLS | E0600 | MSH 24 to 336 |
| REJUVENATED RED BLOOD CELLS | E0604 | MSH 24 to 336 |
| SERUM | E3894 | MSH to 8760 hours (1 year) |
| THAWED APHERESIS FRESH FROZEN PLASMA | E6097 | MSH to 24 hours |
| THAWED APHERESIS PLASMA | 27499 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | 27667 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | 27668 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | 27670 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | 27671 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | 27672 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | 27673 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | 27674 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | 27675 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | 27676 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | 27677 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E1953 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E1954 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E1967 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E1968 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E1969 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E1970 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E1971 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E1972 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E1973 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E1974 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E1975 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E1976 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E1977 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2050 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2051 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2052 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2053 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2054 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2055 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2056 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2057 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2058 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2059 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2060 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2061 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2062 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2063 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2064 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2065 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2066 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2067 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2068 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2069 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2070 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2071 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2072 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2073 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2074 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2075 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2076 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2077 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2078 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2079 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2080 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2081 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2082 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2083 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2084 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2085 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2086 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2087 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2088 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2089 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2090 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2091 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2092 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2093 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2094 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2095 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2096 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2097 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2098 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2099 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2100 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2101 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2102 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2103 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2104 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2105 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2106 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2107 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2108 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2109 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2110 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2111 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2112 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2113 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2114 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2115 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2116 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2117 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2118 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2119 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2120 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2121 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2122 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2135 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2136 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2137 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2138 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2139 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2140 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2141 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2142 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2143 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2144 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2145 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2218 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2219 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2220 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2221 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2222 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2223 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2224 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2225 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2226 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2227 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2228 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2229 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2230 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2231 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2232 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2233 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2234 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2235 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2236 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2237 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2238 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2239 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2240 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2241 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2242 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2243 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2244 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2245 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2246 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2247 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2248 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2249 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2250 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2251 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2252 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2253 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2254 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2255 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2256 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2257 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2258 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2259 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2260 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2261 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2262 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2263 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2264 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2265 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2266 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2267 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2268 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2269 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2270 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2271 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2272 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2273 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2274 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2275 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2276 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2277 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2278 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2279 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2280 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2281 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2282 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2283 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2284 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2285 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2286 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2287 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2288 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2289 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2290 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2303 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2304 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2305 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2306 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2307 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2308 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2309 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2310 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2311 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2312 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2313 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2386 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2387 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2388 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2389 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2390 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2391 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2392 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2393 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2394 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2395 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2396 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2397 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2398 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2399 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2400 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2401 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2402 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2403 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2404 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2405 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E2406 | MSH 24 to 120 |
| Thawed Apheresis PLASMA | E2407 | MSH 24 to 120 |
| Thawed Apheresis PLASMA | E2408 | MSH 24 to 120 |
| Thawed Apheresis PLASMA | E2409 | MSH 24 to 120 |
| Thawed Apheresis PLASMA | E2410 | MSH 24 to 120 |
| Thawed Apheresis PLASMA | E2411 | MSH 24 to 120 |
| Thawed Apheresis PLASMA | E2412 | MSH 24 to 120 |
| Thawed Apheresis PLASMA | E2413 | MSH 24 to 120 |
| Thawed Apheresis PLASMA | E2414 | MSH 24 to 120 |
| Thawed Apheresis PLASMA | E2415 | MSH 24 to 120 |
| Thawed Apheresis PLASMA | E2416 | MSH 24 to 120 |
| Thawed Apheresis PLASMA | E2417 | MSH 24 to 120 |
| Thawed Apheresis PLASMA | E2418 | MSH 24 to 120 |
| Thawed Apheresis PLASMA | E2419 | MSH 24 to 120 |
| Thawed Apheresis PLASMA | E2420 | MSH 24 to 120 |
| Thawed Apheresis PLASMA | E2421 | MSH 24 to 120 |
| Thawed Apheresis PLASMA | E2422 | MSH 24 to 120 |
| Thawed Apheresis PLASMA | E2423 | MSH 24 to 120 |
| Thawed Apheresis PLASMA | E2424 | MSH 24 to 120 |
| Thawed Apheresis PLASMA | E2425 | MSH 24 to 120 |
| Thawed Apheresis PLASMA | E2426 | MSH 24 to 120 |
| Thawed Apheresis PLASMA | E2427 | MSH 24 to 120 |
| Thawed Apheresis PLASMA | E2428 | MSH 24 to 120 |
| Thawed Apheresis PLASMA | E2429 | MSH 24 to 120 |
| Thawed Apheresis PLASMA | E2430 | MSH 24 to 120 |
| Thawed Apheresis PLASMA | E2431 | MSH 24 to 120 |
| Thawed Apheresis PLASMA | E2432 | MSH 24 to 120 |
| Thawed Apheresis PLASMA | E2433 | MSH 24 to 120 |
| Thawed Apheresis PLASMA | E2434 | MSH 24 to 120 |
| Thawed Apheresis PLASMA | E2435 | MSH 24 to 120 |
| Thawed Apheresis PLASMA | E2436 | MSH 24 to 120 |
| Thawed Apheresis PLASMA | E2437 | MSH 24 to 120 |
| Thawed Apheresis PLASMA | E2438 | MSH 24 to 120 |
| Thawed Apheresis PLASMA | E2439 | MSH 24 to 120 |
| Thawed Apheresis PLASMA | E2440 | MSH 24 to 120 |
| Thawed Apheresis PLASMA | E2441 | MSH 24 to 120 |
| Thawed Apheresis PLASMA | E2442 | MSH 24 to 120 |
| Thawed Apheresis PLASMA | E2443 | MSH 24 to 120 |
| Thawed Apheresis PLASMA | E2444 | MSH 24 to 120 |
| Thawed Apheresis PLASMA | E2445 | MSH 24 to 120 |
| Thawed Apheresis PLASMA | E2446 | MSH 24 to 120 |
| Thawed Apheresis PLASMA | E2447 | MSH 24 to 120 |
| Thawed Apheresis PLASMA | E2448 | MSH 24 to 120 |
| Thawed Apheresis PLASMA | E2449 | MSH 24 to 120 |
| Thawed Apheresis PLASMA | E2450 | MSH 24 to 120 |
| Thawed Apheresis PLASMA | E2451 | MSH 24 to 120 |
| Thawed Apheresis PLASMA | E2452 | MSH 24 to 120 |
| Thawed Apheresis PLASMA | E2453 | MSH 24 to 120 |
| Thawed Apheresis PLASMA | E2454 | MSH 24 to 120 |
| Thawed Apheresis PLASMA | E2455 | MSH 24 to 120 |
| Thawed Apheresis PLASMA | E2456 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E5428 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E5429 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E5430 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E5431 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E5489 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E5548 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E5549 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E5550 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E5641 | MSH 24 to 120 |
| THAWED APHERESIS PLASMA | E5642 | MSH 24 to 120 |
| THAWED APHERESIS PLATELETS | E6026 | MSH to 4 hours |
| THAWED FRESH FROZEN PLASMA | 18101 | Change ProductShortName "FFP Thaw None" to "PLASMA Thaw None" |
| THAWED FRESH FROZEN PLASMA | 18161 | MSH 24 to 120 |
| THAWED FRESH FROZEN PLASMA | 18289 | MSH 6 to 24 |
| THAWED FRESH FROZEN PLASMA | 18531 | PV 125 to 225 |
| THAWED FRESH FROZEN PLASMA | 18931 | PV 125 to 225 |
| THAWED FRESH FROZEN PLASMA | 19501 | PV 250 to 225 |
| THAWED FRESH FROZEN PLASMA | 19531 | PV 125 to 225 |
| THAWED FRESH FROZEN PLASMA | 89501 | PV 250 to 225 |
| THAWED FRESH FROZEN PLASMA | E5734 | PV 500 to 225 |
| THAWED FRESH FROZEN PLASMA | E5735 | PV 500 to 225 |
| THAWED FRESH FROZEN PLASMA | E6036 | MSH to 24 hours |
| THAWED POOLED PLASMA | E5275 | MSH 120 to 24 |
| THAWED POOLED PLASMA | E5304 | MSH 120 to 24 |
| THAWED POOLED PLASMA | E5305 | MSH 120 to 24 |
| THAWED POOLED PLASMA | E5306 | MSH 120 to 24 |
| THAWED POOLED PLASMA | E5307 | MSH 120 to 24 |
| THAWED POOLED PLASMA | E5308 | MSH 120 to 24 |
| THAWED POOLED PLASMA | E6036 | MSH 120 to 24 |
| THAWED POOLED PLASMA | E6141 | MSH 120 to 24 |
| WASHED APHERESIS PLATELETS | 12010 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | 12050 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | 12080 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | 12610 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | 12611 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | 12620 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | 12650 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | 12680 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | 12710 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | 12711 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | 12750 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | 12751 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | 12780 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | 12781 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | 12810 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | 12811 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | 12850 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | 12851 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | 22011 | PV 125 to 225 and MSH 120 to 4 |
| WASHED APHERESIS PLATELETS | 22511 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | 22811 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | 27565 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | 27566 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | 27567 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | 27568 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | 27569 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | 27570 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | 27571 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | 27572 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | 27573 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | 27574 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | 27575 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | 27576 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | 27577 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | 27578 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | 27579 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | 27580 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | 27581 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | 27582 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | E3531 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | E3532 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | E3533 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | E3534 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | E3535 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | E3536 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | E3537 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | E3538 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | E3539 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | E3540 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | E3541 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | E3542 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | E3543 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | E3544 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | E3545 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | E3546 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | E3547 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | E3548 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | E3549 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | E3550 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | E3551 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | E3552 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | E3553 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | E3554 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | E3555 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | E3556 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | E3557 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | E3558 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | E3559 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | E3560 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | E3561 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | E3562 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | E3563 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | E3564 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | E3565 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | E3566 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | E3567 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | E3568 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | E3569 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | E3570 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | E3968 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E3969 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E3970 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E3971 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E3972 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E3973 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E4105 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E4106 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E4107 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E4108 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E4109 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E4110 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E4111 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E4112 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E4133 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | E4134 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | E4135 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | E4136 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | E4137 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | E4138 | PV 250 to 200 |
| WASHED APHERESIS PLATELETS | E4166 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E4167 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E4168 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E4169 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E4170 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E4171 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E4172 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E4173 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E4174 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E4175 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E4176 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E4177 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E4411 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E4412 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E4413 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E4414 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E4419 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E4420 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E4421 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E4422 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E4424 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E4426 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E4428 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E4430 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E4432 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E4434 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E4436 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E4438 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E4440 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E4442 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E4444 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E4446 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E4483 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E4485 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E4491 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E4492 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E4493 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E4494 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E4496 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E4498 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E4500 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E4502 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E4681 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E4682 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E5007 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E5008 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E5009 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E5010 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E5011 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E5012 | PV 250 to 200 MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E5387 | MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E5388 | MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E5391 | MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E5392 | MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E5870 | MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E5871 | MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E5872 | MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E5873 | MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E5874 | MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E5875 | MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E5876 | MSH to 4 hours |
| WASHED APHERESIS PLATELETS | E5877 | MSH to 4 hours |
| WASHED APHERESIS RED BLOOD CELLS | 24011 | PV 150 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | 24811 | PV 150 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | 27589 | PV 150 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | 27590 | PV 150 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | 27591 | PV 150 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | 27592 | PV 150 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | 27593 | PV 150 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | 27594 | PV 150 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | 34941 | PV 250 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | 34942 | PV 250 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | 34943 | PV 250 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | 34944 | PV 250 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | 34961 | PV 250 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | 34962 | PV 250 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | 34963 | PV 250 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | 34964 | PV 250 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | 35941 | PV 250 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | 35942 | PV 250 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | 35943 | PV 250 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | 35944 | PV 250 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | 35961 | PV 250 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | 35962 | PV 250 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | 35963 | PV 250 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | 35964 | PV 250 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | 36011 | PV 250 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | 36012 | PV 250 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | 36013 | PV 250 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | 36014 | PV 250 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | 36021 | PV 250 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | 36022 | PV 250 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | 36023 | PV 250 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | 36024 | PV 250 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | 36061 | PV 250 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | 36062 | PV 250 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | 36063 | PV 250 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | 36064 | PV 250 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | 36071 | PV 250 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | 36072 | PV 250 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | 36073 | PV 250 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | 36074 | PV 250 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | E4140 | PV 250 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | E4143 | PV 250 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | E4144 | PV 250 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | E4145 | PV 250 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | E4560 | PV 250 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | E4561 | PV 250 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | E4562 | PV 250 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | E4563 | PV 250 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | E4564 | PV 250 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | E4565 | PV 250 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | E4566 | PV 250 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | E4567 | PV 250 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | E4671 | PV 250 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | E4672 | PV 250 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | E4673 | PV 250 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | E4674 | PV 250 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | E4675 | PV 250 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | E4676 | PV 250 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | E4677 | PV 250 to 200 |
| WASHED APHERESIS RED BLOOD CELLS | E4678 | PV 250 to 200 |
| WASHED RED BLOOD CELLS | 04901 | MSH 24 to 336 |
| WASHED RED BLOOD CELLS | 05901 | MSH 24 to 336 |
| WASHED RED BLOOD CELLS | 27298 | PV 450 to 200 |
| WASHED RED BLOOD CELLS | 27299 | PV 450 to 200 |
| WASHED RED BLOOD CELLS | 27300 | PV 450 to 200 |
| WASHED RED BLOOD CELLS | 27301 | PV 450 to 200 |
| WASHED RED BLOOD CELLS | 27302 | PV 450 to 200 |
| WASHED RED BLOOD CELLS | 27303 | PV 450 to 200 |
| WASHED RED BLOOD CELLS | 27304 | PV 450 to 200 |
| WASHED RED BLOOD CELLS | 27305 | PV 450 to 200 |
| WASHED RED BLOOD CELLS | 27306 | PV 450 to 200 |
| WASHED RED BLOOD CELLS | 27307 | PV 450 to 200 |
| WASHED RED BLOOD CELLS | 27308 | PV 450 to 200 |
| WASHED RED BLOOD CELLS | 27309 | PV 450 to 200 |
| WASHED RED BLOOD CELLS | 27310 | PV 250 to 200 |
| WASHED RED BLOOD CELLS | 27311 | PV 250 to 200 |
| WASHED RED BLOOD CELLS | 27312 | PV 250 to 200 |
| WASHED RED BLOOD CELLS | 27313 | PV 250 to 200 |
| WASHED RED BLOOD CELLS | E3939 | MSH 24 to 336 |
| WASHED RED BLOOD CELLS | E3940 | MSH 24 to 336 |
| WASHED RED BLOOD CELLS | E4398 | MSH 24 to 336 |
| WASHED RED BLOOD CELLS | E4399 | MSH 24 to 336 |
| WASHED RED BLOOD CELLS | E4999 | PV 450 to 200 and MSH 24 to 336 |
| WASHED RED BLOOD CELLS | E5000 | PV 450 to 200 and MSH 24 to 336 |
| WASHED RED BLOOD CELLS | E5140 | PV 350 to 200 |
| WASHED RED BLOOD CELLS | E5141 | PV 350 to 200 and MSH 504 to 24 hours |
| WASHED RED BLOOD CELLS | E5262 | PV 450 to 200 |
| WASHED RED BLOOD CELLS | E5263 | PV 450 to 200 |
| WASHED RED BLOOD CELLS | E5264 | PV 450 to 200 |
| WASHED RED BLOOD CELLS | E5265 | PV 450 to 200 |
| WHOLE BLOOD | 00100 | MSH 1008 to 24 |
| WHOLE BLOOD | 00110 | MSH 1008 to 24 |
| WHOLE BLOOD | 00181 | MSH 672 to 504 |
| WHOLE BLOOD | 26001 | MSH to 504 hours (21 days) |
| WHOLE BLOOD | 27001 | MSH to 504 hours (21 days) |
| WHOLE BLOOD | 27102 | MSH 672 to 504 |
| WHOLE BLOOD | 27107 | PV 450 to 250 |
| WHOLE BLOOD | 27108 | MSH 672 to 504 |
| WHOLE BLOOD | 27109 | PV 450 to 250 and MSH 672 to 504 |
| WHOLE BLOOD | 27111 | PV 450 to 250 |
| WHOLE BLOOD | 27114 | MSH 672 to 504 |
| WHOLE BLOOD | 27117 | PV 450 to 250 |
| WHOLE BLOOD | 27122 | PV 450 to 250 |
| WHOLE BLOOD | 27129 | PV 450 to 250 |
| WHOLE BLOOD | 30151 | PV 250 to 450 and MSH 672 to 504 |
| WHOLE BLOOD | 30152 | PV 250 to 450 and MSH 672 to 504 |
| WHOLE BLOOD | 30153 | PV 250 to 450 and MSH 672 to 504 |
| WHOLE BLOOD | 30154 | PV 250 to 450 and MSH 672 to 504 |
| WHOLE BLOOD | 30155 | PV 250 to 450 and MSH 672 to 504 |
| WHOLE BLOOD | 30156 | PV 250 to 450 and MSH 672 to 504 |
| WHOLE BLOOD | 30157 | PV 250 to 450 and MSH 672 to 504 |
| WHOLE BLOOD | 30158 | PV 250 to 450 and MSH 672 to 504 |
| WHOLE BLOOD | 30181 | MSH 672 to 504 |
| WHOLE BLOOD | 30182 | MSH 672 to 504 |
| WHOLE BLOOD | 30183 | MSH 672 to 504 |
| WHOLE BLOOD | 30184 | MSH 672 to 504 |
| WHOLE BLOOD | 30185 | MSH 672 to 504 |
| WHOLE BLOOD | 30186 | MSH 672 to 504 |
| WHOLE BLOOD | 30187 | MSH 672 to 504 |
| WHOLE BLOOD | 30188 | MSH 672 to 504 |
| WHOLE BLOOD | 30251 | MSH 672 to 504 |
| WHOLE BLOOD | 30252 | MSH 672 to 504 |
| WHOLE BLOOD | 30253 | MSH 672 to 504 |
| WHOLE BLOOD | 30254 | MSH 672 to 504 |
| WHOLE BLOOD | 30255 | MSH 672 to 504 |
| WHOLE BLOOD | 30256 | MSH 672 to 504 |
| WHOLE BLOOD | 30257 | MSH 672 to 504 |
| WHOLE BLOOD | 30258 | MSH 672 to 504 |
| WHOLE BLOOD | 30281 | MSH 672 to 504 |
| WHOLE BLOOD | 30282 | MSH 672 to 504 |
| WHOLE BLOOD | 30283 | MSH 672 to 504 |
| WHOLE BLOOD | 30284 | MSH 672 to 504 |
| WHOLE BLOOD | 30285 | MSH 672 to 504 |
| WHOLE BLOOD | 30286 | MSH 672 to 504 |
| WHOLE BLOOD | 30287 | MSH 672 to 504 |
| WHOLE BLOOD | 30288 | MSH 672 to 504 |
| WHOLE BLOOD | 31451 | MSH 672 to 504 |
| WHOLE BLOOD | 31452 | MSH 672 to 504 |
| WHOLE BLOOD | 31453 | MSH 672 to 504 |
| WHOLE BLOOD | 31454 | MSH 672 to 504 |
| WHOLE BLOOD | 31455 | MSH 672 to 504 |
| WHOLE BLOOD | 31456 | MSH 672 to 504 |
| WHOLE BLOOD | 31457 | MSH 672 to 504 |
| WHOLE BLOOD | 31458 | MSH 672 to 504 |
| WHOLE BLOOD | 31481 | MSH 672 to 504 |
| WHOLE BLOOD | 31482 | MSH 672 to 504 |
| WHOLE BLOOD | 31483 | MSH 672 to 504 |
| WHOLE BLOOD | 31484 | MSH 672 to 504 |
| WHOLE BLOOD | 31485 | MSH 672 to 504 |
| WHOLE BLOOD | 31486 | MSH 672 to 504 |
| WHOLE BLOOD | 31487 | MSH 672 to 504 |
| WHOLE BLOOD | 31488 | MSH 672 to 504 |
| WHOLE BLOOD | 32451 | MSH 672 to 504 |
| WHOLE BLOOD | 32452 | MSH 672 to 504 |
| WHOLE BLOOD | 32453 | MSH 672 to 504 |
| WHOLE BLOOD | 32454 | MSH 672 to 504 |
| WHOLE BLOOD | 32455 | MSH 672 to 504 |
| WHOLE BLOOD | 32456 | MSH 672 to 504 |
| WHOLE BLOOD | 32457 | MSH 672 to 504 |
| WHOLE BLOOD | 32458 | MSH 672 to 504 |
| WHOLE BLOOD | 32481 | MSH 672 to 504 |
| WHOLE BLOOD | 32482 | MSH 672 to 504 |
| WHOLE BLOOD | 32483 | MSH 672 to 504 |
| WHOLE BLOOD | 32484 | MSH 672 to 504 |
| WHOLE BLOOD | 32485 | MSH 672 to 504 |
| WHOLE BLOOD | 32486 | MSH 672 to 504 |
| WHOLE BLOOD | 32487 | MSH 672 to 504 |
| WHOLE BLOOD | 32488 | MSH 672 to 504 |
| WHOLE BLOOD | E0001 | MSH 672 to 504 |
| WHOLE BLOOD | E0001 | PV 450 to 250 |
| WHOLE BLOOD | E0002 | MSH 672 to 504 |
| WHOLE BLOOD | E0003 | MSH 672 to 504 |
| WHOLE BLOOD | E0004 | MSH 672 to 504 |
| WHOLE BLOOD | E0005 | MSH 672 to 504 |
| WHOLE BLOOD | E0006 | MSH 672 to 504 |
| WHOLE BLOOD | E0007 | MSH 672 to 504 |
| WHOLE BLOOD | E0008 | MSH 672 to 504 |
| WHOLE BLOOD | E0009 | MSH 672 to 504 |
| WHOLE BLOOD | E0010 | MSH 672 to 504 |
| WHOLE BLOOD | E0011 | MSH 672 to 504 |
| WHOLE BLOOD | E0012 | MSH 672 to 504 |
| WHOLE BLOOD | E0017 | MSH 672 to 504 |
| WHOLE BLOOD | E0018 | MSH 672 to 504 |
| WHOLE BLOOD | E0019 | MSH 672 to 504 |
| WHOLE BLOOD | E0020 | MSH 672 to 504 |
| WHOLE BLOOD | E0021 | MSH 672 to 504 |
| WHOLE BLOOD | E0022 | MSH 672 to 504 |
| WHOLE BLOOD | E0023 | MSH 672 to 504 |
| WHOLE BLOOD | E0024 | MSH 672 to 504 |
| WHOLE BLOOD | E0025 | MSH 672 to 504 |
| WHOLE BLOOD | E0026 | MSH 672 to 504 |
| WHOLE BLOOD | E0031 | MSH 672 to 504 |
| WHOLE BLOOD | E0032 | MSH 672 to 504 |
| WHOLE BLOOD | E0033 | MSH 672 to 504 |
| WHOLE BLOOD | E0034 | MSH 672 to 504 |
| WHOLE BLOOD | E0035 | MSH 672 to 504 |
| WHOLE BLOOD | E0036 | MSH 672 to 504 |
| WHOLE BLOOD | E0037 | MSH 672 to 504 |
| WHOLE BLOOD | E0038 | MSH 672 to 504 |
| WHOLE BLOOD | E0039 | MSH 672 to 504 |
| WHOLE BLOOD | E0040 | MSH 672 to 504 |
| WHOLE BLOOD | E0045 | MSH 672 to 504 |
| WHOLE BLOOD | E0046 | MSH 672 to 504 |
| WHOLE BLOOD | E0047 | MSH 672 to 504 |
| WHOLE BLOOD | E0048 | MSH 672 to 504 |
| WHOLE BLOOD | E0049 | MSH 672 to 504 |
| WHOLE BLOOD | E0050 | MSH 672 to 504 |
| WHOLE BLOOD | E0051 | MSH 672 to 504 |
| WHOLE BLOOD | E0052 | PV 350 to 250 and MSH 672 to 504 |
| WHOLE BLOOD | E0097 | PV 450 to 250 |
| WHOLE BLOOD | E0098 | MSH 672 to 504 |
| WHOLE BLOOD | E0099 | MSH 672 to 504 |
| WHOLE BLOOD | E0100 | MSH 672 to 504 |
| WHOLE BLOOD | E0100 | MSH 672 to 504 |
| WHOLE BLOOD | E0101 | MSH 672 to 504 |
| WHOLE BLOOD | E0101 | MSH 672 to 504 |
| WHOLE BLOOD | E0102 | MSH 672 to 504 |
| WHOLE BLOOD | E0103 | MSH 672 to 504 |
| WHOLE BLOOD | E0104 | MSH 672 to 504 |
| WHOLE BLOOD | E0105 | MSH 672 to 504 |
| WHOLE BLOOD | E0106 | MSH 672 to 504 |
| WHOLE BLOOD | E0107 | MSH 672 to 504 |
| WHOLE BLOOD | E0108 | MSH 672 to 504 |
| WHOLE BLOOD | E0109 | MSH 672 to 504 |
| WHOLE BLOOD | E0120 | MSH 672 to 504 |
| WHOLE BLOOD | E0121 | MSH 672 to 504 |
| WHOLE BLOOD | E0122 | MSH 672 to 504 |
| WHOLE BLOOD | E0123 | MSH 672 to 504 |
| WHOLE BLOOD | E0124 | MSH 672 to 504 |
| WHOLE BLOOD | E0125 | MSH 672 to 504 |
| WHOLE BLOOD | E0126 | MSH 672 to 504 |
| WHOLE BLOOD | E0127 | MSH 672 to 504 |
| WHOLE BLOOD | E0128 | MSH 672 to 504 |
| WHOLE BLOOD | E0129 | MSH 672 to 504 |
| WHOLE BLOOD | E0130 | PV 350 to 250 and MSH 672 to 504 |
| WHOLE BLOOD | E0131 | MSH 672 to 504 |
| WHOLE BLOOD | E0132 | MSH 672 to 504 |
| WHOLE BLOOD | E0133 | MSH 672 to 504 |
| WHOLE BLOOD | E0134 | MSH 672 to 504 |
| WHOLE BLOOD | E0135 | MSH 1008 to 24 |
| WHOLE BLOOD | E0136 | MSH 1008 to 24 |
| WHOLE BLOOD | E0137 | MSH 1008 to 24 |
| WHOLE BLOOD | E0138 | MSH 1008 to 24 |
| WHOLE BLOOD | E0139 | MSH 1008 to 24 |
| WHOLE BLOOD | E0140 | MSH 1008 to 24 |
| WHOLE BLOOD | E0141 | MSH 1008 to 24 |
| WHOLE BLOOD | E3842 | MSH 672 to 24 |
| WHOLE BLOOD | E4150 | PV 350 to 250 and MSH 672 to 504 |
| WHOLE BLOOD | E4151 | PV 450 to 250 |
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| WHOLE BLOOD | E4207 | MSH 1008 to 504 |
| WHOLE BLOOD | E4208 | MSH 672 to 504 |
| WHOLE BLOOD | E5013 | PV 350 to 250 and MSH 672 to 504 |
| WHOLE BLOOD | E5014 | PV 350 to 250 and MSH 672 to 504 |
| WHOLE BLOOD | E5076 | MSH 1008 to 504 |
| WHOLE BLOOD | E5128 | MSH 1008 to 504 |
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| WHOLE BLOOD | E5357 | MSH 672 to 504 |
| WHOLE BLOOD | E5373 | MSH 840 to 672 |
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| WHOLE BLOOD | E5436 | MSH 672 to 504 |
| WHOLE BLOOD | E5437 | MSH 672 to 504 |
| WHOLE BLOOD | E5438 | MSH 672 to 504 |
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| WHOLE BLOOD | E5564 | PV 350 to 250 and MSH 672 to 504 |
| WHOLE BLOOD | E5565 | PV 350 to 250 |
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