



VistA Blood Establishment Computer Software (VBECS) 2.3.2 Rev F

Release Notes Version 1.0

Department of Veterans Affairs
Enterprise Project Management Office

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Revision History

Date	Revision	Description	Author
07/01/20	1.0	VBECS 2.3.2 Rev F Initial version	BBM Team

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Table of Contents

REVISION HISTORY	I
INTRODUCTION.....	1
CHANGED FEATURES AND FUNCTIONS.....	1
UNTESTABLE SYSTEM-LEVEL MAINTENANCE CHANGES	1
VISTA SOFTWARE DEPENDENCIES	1
VBECS USER DOCUMENTS.....	2
CUSTOMER SUPPORT	4
PROBLEMS?.....	4
REFERENCES	4
VBECS SHAREPOINT SITE	4
INSTALLATION QUALIFICATION (IQ) DOCUMENTATION.....	4
VALIDATION PLANNING	6
TABLE 1: UPDATES BY OPTION.....	7
TABLE 2: NEW BLOOD PRODUCTS FOR COVID-19 TREATMENT	11
TABLE 3: OTHER BLOOD PRODUCTS NOT RELATED TO COVID-19 TREATMENT	12
TABLE 4: POSSIBLE MODIFICATIONS FOR NEWLY ADDED PRODUCTS	13

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Introduction

VistA Blood Establishment Computer Software (VBECS) 2.3.2 Rev F Release Notes contains information for changes and corrections made to VBECS in the 2.3.2 Rev F patch.

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

Changed Features and Functions

This revision letter patch release is centrally focused around enhancing and resolving issues with CPRS Blood Bank Report, providing solutions to customer reported issues, and providing additional blood product updates released from International Council for Commonality in Blood Banking Automation, Inc. (ICCBBA) in releases 7.36.2 through 7.37.0. In addition, VBECS System Maintenance fixes (untestable by the user) are included.

Table 1: Updates by Option provides a complete list of included changes.

For a full list of new product codes see Tables 2, 3 and 4.

Untestable System-Level Maintenance Changes

- Workload Processing
 - Successfully processed workload records retransmitted by VistA won't cause database errors.
- VBECS Database
 - Database changes suggested by Microsoft Data Migration Assistant in preparation for future upgrade to SQL Server 2016.
- VistA Mailman
 - Mailman will now report on both Version 2.0 along with Version 1.0 patches.

VistA Software Dependencies

- VBEC*2*8, LR*5.2*535, and OR*3*527

CPRS Blood Bank Report changes described in Table 1 rely on these VistA patches. If you notice that your report does not contain these changes, please contact your local VistA administrator to verify that all three patches were installed.

VBECS User Documents

The following is a list of all the VBECS user documents that apply to the VBECS 2.3.2 Rev F patch release. The **Updated** column identifies the documents that have been updated with this VBECS 2.3.2 Rev F revision letter patch release.

These user documents are available from the VA Software Document Library (VDL) at <https://www.va.gov/vdl/application.asp?appid=182>.

User Document	Version	Updated
<i>VistA Blood Establishment Computer Software (VBECS) 2.3.2 User Guide</i>	5.0	Yes
<i>VistA Blood Establishment Computer Software (VBECS) 2.3.2 Administrator User Guide</i>	3.0	No
<i>VistA Blood Establishment Computer Software (VBECS) 2.3.2 Known Defects and Anomalies</i>	4.0	Yes
<i>VistA Blood Establishment Computer Software (VBECS) 2.3.2 Technical Manual-Security Guide</i>	2.0	Yes
<i>VistA Blood Establishment Computer Software (VBECS) - Echo Interface Configuration and Setup Guide</i>	5.0	No
<i>VistA Blood Establishment Computer Software (VBECS) - Erytra Interface Configuration and Setup Guide</i>	2.0	No
<i>VistA Blood Establishment Computer Software (VBECS) - ProVue Interface Configuration and Setup Guide</i>	5.0	No
<i>VistA Blood Establishment Computer Software (VBECS) - Vision Interface Configuration and Setup Guide</i>	4.0	No

The following is a list of all the VBECS FAQ documents that apply to the VBECS 2.3.2 Rev F patch release. The **Updated** column identifies the documents that have been updated with this VBECS 2.3.2 Rev F revision letter patch release.

These FAQ documents are available from the VA SharePoint site at <https://dvagov.sharepoint.com/sites/oitepmovbeecs/>.

FAQ Document	Version	Updated
<i>FAQ ABO subgroup Interpretations</i>	11/22/16	No
<i>FAQ Ancillary VistA Validation</i>	11/28/17	No
<i>FAQ Antibodies with No Antigen Negative Requirement</i>	10/15/14	No
<i>FAQ Blood Product Table Processes</i>	03/28/19	No
<i>FAQ CAP Comprehensive Transfusions Medicine Crossmatch Survey</i>	11/22/16	No
<i>FAQ Compound Antibodies</i>	02/27/13	No
<i>FAQ CPRS VBECS Order Details</i>	04/01/09	No
<i>FAQ Database Conversion Oddballs</i>	09/15/09	No
<i>FAQ Documenting Unhandled Exceptions</i>	05/21/07	No
<i>FAQ Handling ABO Incompatible Transfusion Situations</i>	09/23/14	No
<i>FAQ How to File a New Service Request for Changes to VBECS</i>	12/08/16	No
<i>FAQ How to take faster screen shots from Remote Desktop Session</i>	12/17/14	No
<i>FAQ Identifying a Comparable Blood Product Code</i>	03/28/19	No
<i>FAQ Local Facilities</i>	06/12/20	Yes
<i>FAQ Modification Target Not Available</i>	11/28/17	No
<i>FAQ Multidivisional QC Rack Workaround</i>	11/28/17	No
<i>FAQ Order Status Clarification</i>	11/15/17	No
<i>FAQ Polyspecific AHG Not Used for Testing</i>	01/29/10	No
<i>FAQ Proper Use of PIV Card with VBECS</i>	11/04/19	No
<i>FAQ QC Setup</i>	01/29/10	No
<i>FAQ Retesting QC</i>	11/01/11	No
<i>FAQ Retrieving an Expired Order</i>	12/07/17	No
<i>FAQ The Difference Between Transfusion Only and Full Service Facility Types</i>	02/08/10	No
<i>FAQ VBECS Blood Product Hierarchy</i>	03/28/19	No
<i>FAQ VBECS Computer Crossmatch Decision Tree</i>	02/08/12	No
<i>FAQ Weak D Policy</i>	01/11/10	No
<i>FAQ Workload Assignments Single vs Batch Processing</i>	07/01/20	Yes

Customer Support

Problems?

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

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

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

Service Desk Contact

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

References

- *ISBT128 Standard Technical Specification v 5.10.0*
- *Blood Product Revisions ICCBBA Version 7.37.0, June 5th 2020*

VBECS SharePoint Site

The VBECS SharePoint site provides a location for additional information related to the VBECS application such as FAQs, installation status, and release history.

<https://dvagov.sharepoint.com/sites/oitepmovbecs/>.

Installation Qualification (IQ) Documentation

The expedited patch installation process will continue with the installation of VBECS 2.3.2 Rev F.

Test Account Upgrade to VBECS 2.3.2 Revision F	
Required Patch Installation	VistA Patch: VBEC*2*8, LR*5.2*535, and OR*3*527 Server Patch: VBECS 2.3.2 Revision F
Installation Process for VBECS 2.3.2 Rev F	Installed by the BBM team, all sites will be installed in one day. The date of installation will be communicated through a ListServ announcement.
Installation Process for VBEC*2*8, LR*5.2*535, and OR*3*527	Installed by IT Support Staff according to patch description and local policy.
Expected Downtime	None

Installation Communication for VBECS 2.3.2 Rev F	The planned completion time for all test installs will be provided on the VBECS SharePoint site.
Site Responsibility	<ul style="list-style-type: none"> • Join VBECS-L message board on ListServ, if needed. • Please communicate any changes to your site supervisor and Point of Contact (POC) since the last patch install to the BBM team to the email group “VA OIT BBM Team”.
Site Record of Patch Installation	Sites should take and save a screenshot of the VBECS Help, About window after the Test installation is performed. This displays the VBECS updated version information.

Production Account Upgrade to VBECS 2.3.2 Revision F	
Required Patch Installation	VistA Patch: VBEC*2*8, LR*5.2*535, and OR*3*527 Server Patch: VBECS 2.3.2 Revision F
Installation Process for VBECS 2.3.2 Rev F	Installed by the BBM team, all sites will be installed in one day. The date of installation will be communicated through a ListServ announcement.
Installation Process for VBEC*2*8, LR*5.2*535, and OR*3*527	Installed by IT Support Staff according to patch description and local policy.
Expected Downtime	You will be able to use VBECS during the patch installation. VBECS installation on your production account only lasts a few minutes and is invisible to users. If you encounter any disruption or errors while viewing or printing reports during the installation, try again after a few minutes.
Installation Communication for VBECS 2.3.2 Rev F	The status of production installs will be provided on the VBECS SharePoint site.
Site Responsibility	<ul style="list-style-type: none"> • Perform local validation, training, and set-up requirements prior to Production installation. • Join VBECS-L message board on ListServ, if needed. • Please communicate any changes to your site supervisor and Point of Contact (POC) since the last patch install to the BBM team to the email group “VA OIT BBM Team”.
Site Record of Patch Installation	Sites should take and save a screenshot of the VBECS Help, About window after Production installation is performed. This displays the VBECS updated version information.

Validation Planning

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

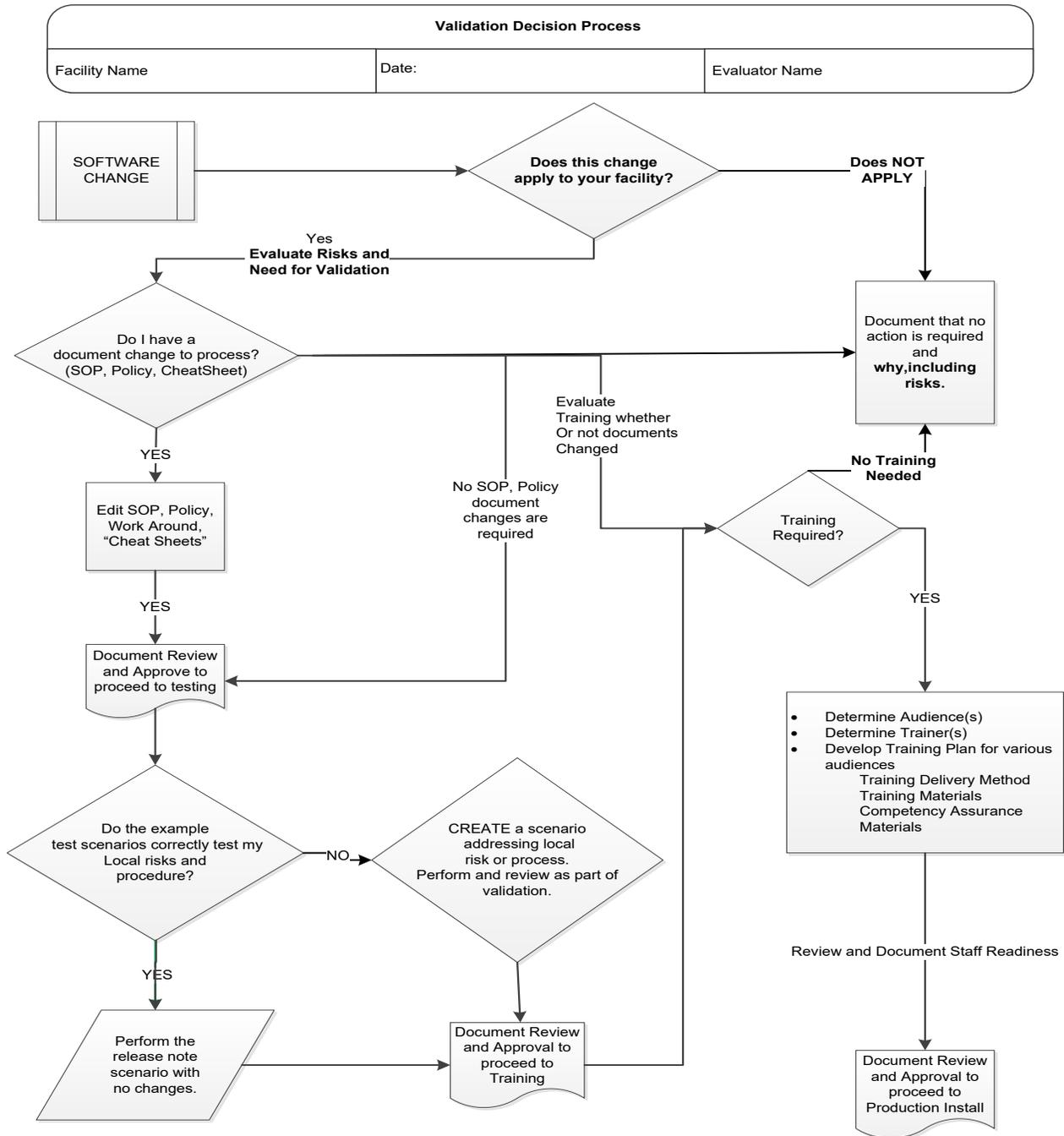


Table 1: Updates by Option

ID	Option	Problem Summary	Change Summary	Validation Scenario	Change applies to my facility. (Y/N)	Local risk Assessment (Low, Med, High)	SOP revision required. If yes, identify it.	Staff training needed. (Y/N)	Scenarios or validation must be performed. (Y/N)
1	CPRS Blood Bank Report	Enhancements and defect fixes in CPRS Blood Bank Report.	Added patient's antigen negative requirements and component requirements right after patient's antibodies.	Validate that patient's antigen negative requirements and component requirements are now included in the report.					
			Added Issue Date, Product Code and Product Name to the Available/Issued Units section.	Validate that Available/Issued Units section contains Issue/Date (only for issued units, otherwise blank), Product Code and Product Name for each unit listed in that section.					
			Removed reaction strengths for DAT tests from the Diagnostic tests section. Added Specimen Collection Date and Specimen UID to this section.	Validate that for DAT tests the reaction strengths are no longer displayed. Only DAT interpretations are included. Also verify that Specimen Collection Date and Specimen UID are included in this section.					
			The report now distinguishes between two TAS tests performed at the same date and time. The report will now display results for both TAS instead of just one.	Perform validation only if you were directly affected by this defect. Run two TAS tests on two samples drawn from one patient in the automated instrument so that they complete at the same date and time. Accept results in VBECS and verify that both TAS results are showing on CPRS Blood Bank Report.					

ID	Option	Problem Summary	Change Summary	Validation Scenario	Change applies to my facility. (Y/N)	Local risk Assessment (Low, Med, High)	SOP revision required. If yes, identify it.	Staff training needed. (Y/N)	Scenarios or validation must be performed. (Y/N)
			Added reference range for ABS and DAT tests to the Diagnostic Tests section.	Validate that there is a new comment at the bottom of the Diagnostic tests section that describes reference ranges for ABS and DAT tests. (hint: you must have at least one ABS or DAT test result present for a given patient for the reference range comment to show).					
			Removed cancelled orders from Component Requests section of the report.	Validate that cancelled orders no longer show in the Component Requests section. Place any component order in CPRS. Verify that it shows in CPRS Blood Bank Report. Cancel an order in VBECS. Verify that the order no longer shows on the report.					
			Enhanced Transfused Units section of the CPRS Blood Bank Report. It now contains detailed information about each transfusion including Unit ID, Product Code, Product Name and Unit ABO/Rh.	Validate that the Transfused Units section of the report lists all patient's transfusions including Unit ID, Product Code, Product Name and Unit ABO/Rh.					
			Optimized the display of canned comments to have one comment display for entire antibody section instead of one comment per antibody.	No validation required.					

ID	Option	Problem Summary	Change Summary	Validation Scenario	Change applies to my facility. (Y/N)	Local risk Assessment (Low, Med, High)	SOP revision required. If yes, identify it.	Staff training needed. (Y/N)	Scenarios or validation must be performed. (Y/N)
2	Blood Products	Update blood product table with new ICCBBA blood product codes from version 7.36.2 through 7.37.0.	<p>New blood products were added to VBECS.</p> <p>For a full list of new product codes for COVID-19 treatment, see Table 2.</p> <p>For all other blood products added by ICCBBA that are not related to COVID-19 treatment see Table 3.</p> <p>For possible modifications for new blood products see Table 4.</p>	Validate only blood products that you may receive from your supplier. Use Tools, Blood Products to associate the blood products with an active facility.					
3	Cost Accounting Report	The value of Special Testing Cost displayed in the Incoming Shipment section of the report does not account for any cost correction made via Edit Financial Data option.	The value of Special Testing will now reflect any correction made.	<p>Validate only if you were affected by this defect.</p> <p>Enter new blood unit into VBECS. Set its Special Testing Cost to a non-zero value. Go to Blood Units -> Edit Financial Data and modify special testing cost for this blood unit. Run Cost Accounting Report and verify that the modified Special Testing Cost shows in the Incoming Shipment section.</p>					
4	Unit History Report	Name of Collection Facility in the Outgoing Shipment section does not show correctly if the facility name was changed after the shipment occurred.	The collection facility will show its original name if it was changed after the shipment occurred.	No validation required.					

ID	Option	Problem Summary	Change Summary	Validation Scenario	Change applies to my facility. (Y/N)	Local risk Assessment (Low, Med, High)	SOP revision required. If yes, identify it.	Staff training needed. (Y/N)	Scenarios or validation must be performed. (Y/N)
5	Invalidate Patient Test Results	VBECs would crash when trying to invalidate crossmatch on a blood unit that was quarantined during issue (units marked as unsatisfactory during issue).	VBECs will no longer crash.	No validation required.					
6	Record Locking	A defect caused some record locks to not clear properly preventing users from accessing patient records.	Record locks will now clear properly.	No validation required.					
7	CPRS Order Alert	Recently introduced VBECs CPRS Order Alert icon was causing locking issues in the database.	CPRS Order Alert icon will no longer negatively affect the performance of the VBECs database.	No validation required.					
8	Outgoing Shipment	Outgoing shipment type of "Send to other VA hospital" is unused.	Shipment type of "Send to other VA hospital" was removed from VBECs database.	No validation required.					
9	MSBOS	Spelling errors in the surgical procedure names for Maximum Surgical Blood Order Schedule (MSBOS).	Changed Esophageal Resection to Esophageal Resection. Changed Esophogectomy to Esophagectomy. Changed Cholostomy to Colostomy. Changed Femoral-Popiteal Bypass to Femoral-Popliteal Bypass	No validation required.					

Table 2: New Blood Products for COVID-19 Treatment

Component	Product Code	Modifiable	Product Type	Long Name	Short Name	Maximum Storage Hours
FRESH FROZEN PLASMA	E9866	No	Apheresis CONVALESCENT PLASMA	Apheresis CONVALESCENT PLASMA ACD-A/XX/<=-18C Not for tx or mnf COVID-19	PLASMA AFR Conv ACD-A NMT COVID-19	8760
FRESH FROZEN PLASMA	E9867	Yes	Thawed Apheresis CONVALESCENT PLASMA	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open COVID-19	PLASMA Conv AFR Thaw ACD-A OPN COVID-19	24
FRESH FROZEN PLASMA	E9868	Yes	Thawed Apheresis CONVALESCENT PLASMA	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open 1st container COVID-19	PLASMA Conv AFR Thaw ACD-A OPN 1C COVID-19	24
FRESH FROZEN PLASMA	E9869	Yes	Thawed Apheresis CONVALESCENT PLASMA	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open 2nd container COVID-19	PLASMA Conv AFR Thaw ACD-A OPN 2C COVID-19	24
FRESH FROZEN PLASMA	E9870	Yes	Thawed Apheresis CONVALESCENT PLASMA	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open 3rd container COVID-19	PLASMA Conv AFR Thaw ACD-A OPN 3C COVID-19	24
FRESH FROZEN PLASMA	E9871	Yes	Thawed Apheresis CONVALESCENT PLASMA	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open 4th container COVID-19	PLASMA Conv AFR Thaw ACD-A OPN 4C COVID-19	24
FRESH FROZEN PLASMA	E9872	Yes	Thawed Apheresis CONVALESCENT PLASMA	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open Irradiated COVID-19	PLASMA Conv AFR Thaw ACD-A OPN IRD COVID-19	24
FRESH FROZEN PLASMA	E9873	Yes	Thawed Apheresis CONVALESCENT PLASMA	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open Irradiated 1st container COVID-19	PLASMA Conv AFR Thaw ACD-A OPN IRD 1C COVID-19	24
FRESH FROZEN PLASMA	E9874	Yes	Thawed Apheresis CONVALESCENT PLASMA	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open Irradiated 2nd container COVID-19	PLASMA Conv AFR Thaw ACD-A OPN IRD 2C COVID-19	24
FRESH FROZEN PLASMA	E9875	Yes	Thawed Apheresis CONVALESCENT PLASMA	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open Irradiated 3rd container COVID-19	PLASMA Conv AFR Thaw ACD-A OPN IRD 3C COVID-19	24
FRESH FROZEN PLASMA	E9877	Yes	CONVALESCENT PLASMA	CONVALESCENT PLASMA CPD/XX/<=-25C Riboflavin-treated COVID-19	PLASMA Conv CPD Ribo COVID-19	8760
FRESH FROZEN PLASMA	E9878	Yes	Apheresis CONVALESCENT PLASMA	Apheresis CONVALESCENT PLASMA ACD-A/XX/<=-25C COVID-19	PLASMA AFR Conv ACD-A COVID-19	8760

Table 3: Other Blood Products not related to COVID-19 treatment

Component	Product Code	Modifiable	Product Type	Long Name	Short Name	Maximum Storage Hours
PLATELETS	E9876	Yes	Thawed POOLED PLATELETS	Thawed POOLED PLATELETS DMSO/XX/20-24C ResLeu:<1E6 Buffy coat plts prep Psoralen-treated	PLT Pool Thaw DMSO LUKOPR BUFCT Psoraln	4
RED BLOOD CELLS	E9879	Yes	Apheresis RED BLOOD CELLS	Apheresis RED BLOOD CELLS CP2D>AS3/XX/refg Irradiated ResLeu:<5E6 Plasma added	RBC AFR CP2D>AS3 IRD LUKOPR PA	672
RED BLOOD CELLS	E9880	Yes	Apheresis RED BLOOD CELLS	Apheresis RED BLOOD CELLS CP2D>AS3/XX/refg Irradiated ResLeu:<5E6 Plasma added 1st container	RBC AFR CP2D>AS3 IRD LUKOPR PA 1C	672
RED BLOOD CELLS	E9881	Yes	Apheresis RED BLOOD CELLS	Apheresis RED BLOOD CELLS CP2D>AS3/XX/refg Irradiated ResLeu:<5E6 Plasma added 2nd container	RBC AFR CP2D>AS3 IRD LUKOPR PA 2C	672
PLATELETS	E9882	Yes	POOLED PLATELETS	POOLED PLATELETS CPD/XX/20-24C Open ResLeu:<5E6 Plasma reduced/Saline added Buffy coat plts prep 4 units	PLT Pool CPD OPN LUKOPR PLS Red/SAL Add BUFCT 4U	4
PLATELETS	E9883	Yes	POOLED PLATELETS	POOLED PLATELETS CPD/XX/20-24C Open Irradiated ResLeu:<5E6 Plasma reduced/Saline added Buffy coat plts prep 4 units	PLT Pool CPD OPN IRD LUKOPR PLS Red/SAL Add BUFCT 4U	4
FRESH FROZEN PLASMA	E9884	Yes	Liquid PLASMA	Liquid PLASMA CPDA-1/XX/refg ResLeu:<5E6	PLASMA Liq CPDA-1 LUKOPR	960
FRESH FROZEN PLASMA	E9885	Yes	Thawed POOLED PLASMA	Thawed POOLED PLASMA CP2D/XX/refg Open From 2 donors	PLASMA Pool Thaw CP2D OPN 2DNR	4
FRESH FROZEN PLASMA	E9886	Yes	Thawed POOLED PLASMA	Thawed POOLED PLASMA CPD/XX/refg Open From 2 donors	PLASMA Pool Thaw CPD OPN 2DNR	4

Table 4: Possible Modifications for Newly Added Products

Modification	Method	Source Product Code	Source Product Name	Target Product Code	Target Product Name
Thaw	CLOSED	E9877	CONVALESCENT PLASMA CPD/XX/<=-25C Riboflavin-treated COVID-19	E9861	Thawed CONVALESCENT PLASMA CPD/XX/refg Riboflavin-treated COVID-19
Thaw	CLOSED	E9878	Apheresis CONVALESCENT PLASMA ACD-A/XX/<=-25C COVID-19	E9752	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg COVID-19
Freeze	OPEN	E9879	Apheresis RED BLOOD CELLS CP2D>AS3/XX/refg Irradiated ResLeu:<5E6 Plasma added	E5102	Frozen Apheresis RED BLOOD CELLS None/XX/<=-65C Open Irradiated ResLeu:<5E6
Freeze	OPEN	E9880	Apheresis RED BLOOD CELLS CP2D>AS3/XX/refg Irradiated ResLeu:<5E6 Plasma added 1st container	E5103	Frozen Apheresis RED BLOOD CELLS None/XX/<=-65C Open Irradiated ResLeu:<5E6 1st container
Freeze	OPEN	E9881	Apheresis RED BLOOD CELLS CP2D>AS3/XX/refg Irradiated ResLeu:<5E6 Plasma added 2nd container	E5104	Frozen Apheresis RED BLOOD CELLS None/XX/<=-65C Open Irradiated ResLeu:<5E6 2nd container
Irradiate	CLOSED	E9867	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open COVID-19	E9872	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open Irradiated COVID-19
Irradiate	CLOSED	E9868	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open 1st container COVID-19	E9873	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open Irradiated 1st container COVID-19
Irradiate	CLOSED	E9869	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open 2nd container COVID-19	E9874	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open Irradiated 2nd container COVID-19
Irradiate	CLOSED	E9870	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open 3rd container COVID-19	E9875	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open Irradiated 3rd container COVID-19
Irradiate	CLOSED	E9882	POOLED PLATELETS CPD/XX/20-24C Open ResLeu:<5E6 Plasma reduced Saline added Buffy coat plts prep 4 units	E5229	POOLED PLATELETS CPD/XX/20-24C Open Irradiated ResLeu:<5E6
Irradiate	CLOSED	E9882	POOLED PLATELETS CPD/XX/20-24C Open ResLeu:<5E6 Plasma reduced Saline added Buffy coat plts prep 4 units	E8076	POOLED PLATELETS CPD/XX/20-24C Open Irradiated ResLeu:<5E6 Buffy coat plts prep 4 units
Irradiate	CLOSED	E9882	POOLED PLATELETS CPD/XX/20-24C Open ResLeu:<5E6 Plasma reduced Saline added Buffy coat plts prep 4 units	E9883	POOLED PLATELETS CPD/XX/20-24C Open Irradiated ResLeu:<5E6 Plasma reduced Saline added Buffy coat plts prep 4 units
Leukoreduce	CLOSED	E2463	Liquid PLASMA CPDA-1/XX/refg	E9884	Liquid PLASMA CPDA-1/XX/refg ResLeu:<5E6
Rejuvenate	OPEN	E9879	Apheresis RED BLOOD CELLS CP2D>AS3/XX/refg Irradiated ResLeu:<5E6 Plasma added	E5657	Rejuvenated Apheresis RED BLOOD CELLS None/XX/refg Open Irradiated ResLeu:<5E6 Plasma added
Rejuvenate	OPEN	E9879	Apheresis RED BLOOD CELLS CP2D>AS3/XX/refg Irradiated ResLeu:<5E6 Plasma added	E5993	Rejuvenated Apheresis RED BLOOD CELLS None/XX/refg Open Irradiated ResLeu:<5E6
Rejuvenate	OPEN	E9880	Apheresis RED BLOOD CELLS CP2D>AS3/XX/refg Irradiated ResLeu:<5E6 Plasma added 1st container	E5050	Rejuvenated Apheresis RED BLOOD CELLS None/XX/refg Open Irradiated ResLeu:<5E6 1st container
Rejuvenate	OPEN	E9881	Apheresis RED BLOOD CELLS CP2D>AS3/XX/refg Irradiated ResLeu:<5E6 Plasma added 2nd container	E5051	Rejuvenated Apheresis RED BLOOD CELLS None/XX/refg Open Irradiated ResLeu:<5E6 2nd container
Split/Divide	CLOSED	E9867	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open COVID-19	E9867	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open COVID-19
Split/Divide	CLOSED	E9868	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open 1st container COVID-19	E9868	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open 1st container COVID-19

Modification	Method	Source Product Code	Source Product Name	Target Product Code	Target Product Name
Split/Divide	CLOSED	E9869	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open 2nd container COVID-19	E9869	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open 2nd container COVID-19
Split/Divide	CLOSED	E9870	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open 3rd container COVID-19	E9870	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open 3rd container COVID-19
Split/Divide	CLOSED	E9871	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open 4th container COVID-19	E9871	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open 4th container COVID-19
Split/Divide	CLOSED	E9872	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open Irradiated COVID-19	E9872	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open Irradiated COVID-19
Split/Divide	CLOSED	E9873	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open Irradiated 1st container COVID-19	E9873	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open Irradiated 1st container COVID-19
Split/Divide	CLOSED	E9874	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open Irradiated 2nd container COVID-19	E9874	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open Irradiated 2nd container COVID-19
Split/Divide	CLOSED	E9875	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open Irradiated 3rd container COVID-19	E9875	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open Irradiated 3rd container COVID-19
Split/Divide	CLOSED	E9876	Thawed POOLED PLATELETS DMSO/XX/20-24C ResLeu:<1E6 Buffy coat plts prep Psoralen-treated	E9876	Thawed POOLED PLATELETS DMSO/XX/20-24C ResLeu:<1E6 Buffy coat plts prep Psoralen-treated
Split/Divide	CLOSED	E9879	Apheresis RED BLOOD CELLS CP2D>AS3/XX/refg Irradiated ResLeu:<5E6 Plasma added	E9879	Apheresis RED BLOOD CELLS CP2D>AS3/XX/refg Irradiated ResLeu:<5E6 Plasma added
Split/Divide	CLOSED	E9880	Apheresis RED BLOOD CELLS CP2D>AS3/XX/refg Irradiated ResLeu:<5E6 Plasma added 1st container	E9880	Apheresis RED BLOOD CELLS CP2D>AS3/XX/refg Irradiated ResLeu:<5E6 Plasma added 1st container
Split/Divide	CLOSED	E9881	Apheresis RED BLOOD CELLS CP2D>AS3/XX/refg Irradiated ResLeu:<5E6 Plasma added 2nd container	E9881	Apheresis RED BLOOD CELLS CP2D>AS3/XX/refg Irradiated ResLeu:<5E6 Plasma added 2nd container
Split/Divide	CLOSED	E9882	POOLED PLATELETS CPD/XX/20-24C Open ResLeu:<5E6 Plasma reduced/Saline added Buffy coat plts prep 4 units	E9882	POOLED PLATELETS CPD/XX/20-24C Open ResLeu:<5E6 Plasma reduced/Saline added Buffy coat plts prep 4 units
Split/Divide	CLOSED	E9883	POOLED PLATELETS CPD/XX/20-24C Open Irradiated ResLeu:<5E6 Plasma reduced/Saline added Buffy coat plts prep 4 units	E9883	POOLED PLATELETS CPD/XX/20-24C Open Irradiated ResLeu:<5E6 Plasma reduced/Saline added Buffy coat plts prep 4 units
Split/Divide	CLOSED	E9884	Liquid PLASMA CPDA-1/XX/refg ResLeu:<5E6	E9884	Liquid PLASMA CPDA-1/XX/refg ResLeu:<5E6
Split/Divide	CLOSED	E9885	Thawed POOLED PLASMA CP2D/XX/refg Open From 2 donors	E9885	Thawed POOLED PLASMA CP2D/XX/refg Open From 2 donors
Split/Divide	CLOSED	E9886	Thawed POOLED PLASMA CPD/XX/refg Open From 2 donors	E9886	Thawed POOLED PLASMA CPD/XX/refg Open From 2 donors
Split/Divide	OPEN	E8835	Thawed POOLED PLASMA CPD/XX/refg From 2 donors	E9886	Thawed POOLED PLASMA CPD/XX/refg Open From 2 donors
Split/Divide	OPEN	E8838	Thawed POOLED PLASMA CP2D/XX/refg From 2 donors	E9885	Thawed POOLED PLASMA CP2D/XX/refg Open From 2 donors
Split/Divide	OPEN	E9752	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg COVID-19	E9867	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open COVID-19
Split/Divide	OPEN	E9762	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg 1st container COVID-19	E9868	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open 1st container COVID-19
Split/Divide	OPEN	E9763	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg 2nd container COVID-19	E9869	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open 2nd container COVID-19
Split/Divide	OPEN	E9764	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg 3rd container COVID-19	E9870	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open 3rd container COVID-19

Modification	Method	Source Product Code	Source Product Name	Target Product Code	Target Product Name
Split/Divide	OPEN	E9765	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg 4th container COVID-19	E9871	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open 4th container COVID-19
Split/Divide	OPEN	E9793	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Irradiated COVID-19	E9872	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open Irradiated COVID-19
Split/Divide	OPEN	E9819	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Irradiated 1st container COVID-19	E9873	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open Irradiated 1st container COVID-19
Split/Divide	OPEN	E9820	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Irradiated 2nd container COVID-19	E9874	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open Irradiated 2nd container COVID-19
Split/Divide	OPEN	E9821	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Irradiated 3rd container COVID-19	E9875	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open Irradiated 3rd container COVID-19
Split/Divide	OPEN	E9867	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open COVID-19	E9867	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open COVID-19
Split/Divide	OPEN	E9868	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open 1st container COVID-19	E9868	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open 1st container COVID-19
Split/Divide	OPEN	E9869	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open 2nd container COVID-19	E9869	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open 2nd container COVID-19
Split/Divide	OPEN	E9870	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open 3rd container COVID-19	E9870	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open 3rd container COVID-19
Split/Divide	OPEN	E9871	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open 4th container COVID-19	E9871	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open 4th container COVID-19
Split/Divide	OPEN	E9872	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open Irradiated COVID-19	E9872	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open Irradiated COVID-19
Split/Divide	OPEN	E9873	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open Irradiated 1st container COVID-19	E9873	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open Irradiated 1st container COVID-19
Split/Divide	OPEN	E9874	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open Irradiated 2nd container COVID-19	E9874	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open Irradiated 2nd container COVID-19
Split/Divide	OPEN	E9875	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open Irradiated 3rd container COVID-19	E9875	Thawed Apheresis CONVALESCENT PLASMA ACD-A/XX/refg Open Irradiated 3rd container COVID-19
Split/Divide	OPEN	E9879	Apheresis RED BLOOD CELLS CP2D>AS3/XX/refg Irradiated ResLeu:<5E6 Plasma added	E6796	Apheresis RED BLOOD CELLS CP2D>AS3/XX/refg Open Irradiated ResLeu:<5E6 Plasma added
Split/Divide	OPEN	E9880	Apheresis RED BLOOD CELLS CP2D>AS3/XX/refg Irradiated ResLeu:<5E6 Plasma added 1st container	E6797	Apheresis RED BLOOD CELLS CP2D>AS3/XX/refg Open Irradiated ResLeu:<5E6 Plasma added 1st container
Split/Divide	OPEN	E9881	Apheresis RED BLOOD CELLS CP2D>AS3/XX/refg Irradiated ResLeu:<5E6 Plasma added 2nd container	E6798	Apheresis RED BLOOD CELLS CP2D>AS3/XX/refg Open Irradiated ResLeu:<5E6 Plasma added 2nd container
Split/Divide	OPEN	E9882	POOLED PLATELETS CPD/XX/20-24C Open ResLeu:<5E6 Plasma reduced/Saline added Buffy coat plts prep 4 units	E9882	POOLED PLATELETS CPD/XX/20-24C Open ResLeu:<5E6 Plasma reduced/Saline added Buffy coat plts prep 4 units
Split/Divide	OPEN	E9883	POOLED PLATELETS CPD/XX/20-24C Open Irradiated ResLeu:<5E6 Plasma reduced/Saline added Buffy coat plts prep 4 units	E9883	POOLED PLATELETS CPD/XX/20-24C Open Irradiated ResLeu:<5E6 Plasma reduced/Saline added Buffy coat plts prep 4 units
Split/Divide	OPEN	E9885	Thawed POOLED PLASMA CP2D/XX/refg Open From 2 donors	E9885	Thawed POOLED PLASMA CP2D/XX/refg Open From 2 donors
Split/Divide	OPEN	E9886	Thawed POOLED PLASMA CPD/XX/refg Open From 2 donors	E9886	Thawed POOLED PLASMA CPD/XX/refg Open From 2 donors

Modification	Method	Source Product Code	Source Product Name	Target Product Code	Target Product Name
Wash	OPEN	E9879	Apheresis RED BLOOD CELLS CP2D>AS3/XX/refg Irradiated ResLeu:<5E6 Plasma added	E4145	Washed Apheresis RED BLOOD CELLS None/XX/refg Open Irradiated ResLeu:<5E6
Wash	OPEN	E9879	Apheresis RED BLOOD CELLS CP2D>AS3/XX/refg Irradiated ResLeu:<5E6 Plasma added	E5666	Washed Apheresis RED BLOOD CELLS None/XX/refg Open Irradiated ResLeu:<5E6 Plasma added
Wash	OPEN	E9880	Apheresis RED BLOOD CELLS CP2D>AS3/XX/refg Irradiated ResLeu:<5E6 Plasma added 1st container	E4560	Washed Apheresis RED BLOOD CELLS None/XX/refg Open Irradiated ResLeu:<5E6 1st container
Wash	OPEN	E9880	Apheresis RED BLOOD CELLS CP2D>AS3/XX/refg Irradiated ResLeu:<5E6 Plasma added 1st container	E5664	Washed Apheresis RED BLOOD CELLS None/XX/refg Open Irradiated ResLeu:<5E6 Plasma added 1st container
Wash	OPEN	E9881	Apheresis RED BLOOD CELLS CP2D>AS3/XX/refg Irradiated ResLeu:<5E6 Plasma added 2nd container	E4561	Washed Apheresis RED BLOOD CELLS None/XX/refg Open Irradiated ResLeu:<5E6 2nd container
Wash	OPEN	E9881	Apheresis RED BLOOD CELLS CP2D>AS3/XX/refg Irradiated ResLeu:<5E6 Plasma added 2nd container	E5665	Washed Apheresis RED BLOOD CELLS None/XX/refg Open Irradiated ResLeu:<5E6 Plasma added 2nd container
Wash	OPEN	E9882	POOLED PLATELETS CPD/XX/20-24C Open ResLeu:<5E6 Plasma reduced Saline added Buffy coat plts prep 4 units	E2921	Washed POOLED PLATELETS None/XX/20-24C Open ResLeu:<5E6
Wash	OPEN	E9882	POOLED PLATELETS CPD/XX/20-24C Open ResLeu:<5E6 Plasma reduced Saline added Buffy coat plts prep 4 units	E5927	Washed POOLED PLATELETS None/XX/20-24C Open ResLeu:<5E6 2 units
Wash	OPEN	E9882	POOLED PLATELETS CPD/XX/20-24C Open ResLeu:<5E6 Plasma reduced Saline added Buffy coat plts prep 4 units	E5928	Washed POOLED PLATELETS None/XX/20-24C Open ResLeu:<5E6 3 units
Wash	OPEN	E9882	POOLED PLATELETS CPD/XX/20-24C Open ResLeu:<5E6 Plasma reduced Saline added Buffy coat plts prep 4 units	E5929	Washed POOLED PLATELETS None/XX/20-24C Open ResLeu:<5E6 4 units
Wash	OPEN	E9882	POOLED PLATELETS CPD/XX/20-24C Open ResLeu:<5E6 Plasma reduced Saline added Buffy coat plts prep 4 units	E5930	Washed POOLED PLATELETS None/XX/20-24C Open ResLeu:<5E6 5 units
Wash	OPEN	E9882	POOLED PLATELETS CPD/XX/20-24C Open ResLeu:<5E6 Plasma reduced Saline added Buffy coat plts prep 4 units	E5931	Washed POOLED PLATELETS None/XX/20-24C Open ResLeu:<5E6 6 units
Wash	OPEN	E9882	POOLED PLATELETS CPD/XX/20-24C Open ResLeu:<5E6 Plasma reduced Saline added Buffy coat plts prep 4 units	E5932	Washed POOLED PLATELETS None/XX/20-24C Open ResLeu:<5E6 7 units
Wash	OPEN	E9882	POOLED PLATELETS CPD/XX/20-24C Open ResLeu:<5E6 Plasma reduced Saline added Buffy coat plts prep 4 units	E5933	Washed POOLED PLATELETS None/XX/20-24C Open ResLeu:<5E6 8 units
Wash	OPEN	E9882	POOLED PLATELETS CPD/XX/20-24C Open ResLeu:<5E6 Plasma reduced Saline added Buffy coat plts prep 4 units	E6367	Washed POOLED PLATELETS None/XX/20-24C Open ResLeu:<5E6 Buffy coat plts prep 4 units
Wash	OPEN	E9882	POOLED PLATELETS CPD/XX/20-24C Open ResLeu:<5E6 Plasma reduced Saline added Buffy coat plts prep 4 units	E7634	Washed POOLED PLATELETS None/XX/20-24C Open ResLeu:<5E6 Buffy coat plts prep 5 units
Wash	OPEN	E9883	POOLED PLATELETS CPD/XX/20-24C Open Irradiated ResLeu:<5E6 Plasma reduced Saline added Buffy coat plts prep 4 units	E2920	Washed POOLED PLATELETS None/XX/20-24C Open Irradiated ResLeu:<5E6
Wash	OPEN	E9883	POOLED PLATELETS CPD/XX/20-24C Open Irradiated ResLeu:<5E6 Plasma reduced Saline added Buffy coat plts prep 4 units	E5888	Washed POOLED PLATELETS None/XX/20-24C Open Irradiated ResLeu:<5E6 Supernat reduced
Wash	OPEN	E9883	POOLED PLATELETS CPD/XX/20-24C Open Irradiated ResLeu:<5E6 Plasma reduced Saline added Buffy coat plts prep 4 units	E5920	Washed POOLED PLATELETS None/XX/20-24C Open Irradiated ResLeu:<5E6 2 units

Modification	Method	Source Product Code	Source Product Name	Target Product Code	Target Product Name
Wash	OPEN	E9883	POOLED PLATELETS CPD/XX/20-24C Open Irradiated ResLeu:<5E6 Plasma reduced/Saline added Buffy coat plts prep 4 units	E5921	Washed POOLED PLATELETS None/XX/20-24C Open Irradiated ResLeu:<5E6 3 units
Wash	OPEN	E9883	POOLED PLATELETS CPD/XX/20-24C Open Irradiated ResLeu:<5E6 Plasma reduced/Saline added Buffy coat plts prep 4 units	E5922	Washed POOLED PLATELETS None/XX/20-24C Open Irradiated ResLeu:<5E6 4 units
Wash	OPEN	E9883	POOLED PLATELETS CPD/XX/20-24C Open Irradiated ResLeu:<5E6 Plasma reduced/Saline added Buffy coat plts prep 4 units	E5923	Washed POOLED PLATELETS None/XX/20-24C Open Irradiated ResLeu:<5E6 5 units
Wash	OPEN	E9883	POOLED PLATELETS CPD/XX/20-24C Open Irradiated ResLeu:<5E6 Plasma reduced/Saline added Buffy coat plts prep 4 units	E5924	Washed POOLED PLATELETS None/XX/20-24C Open Irradiated ResLeu:<5E6 6 units
Wash	OPEN	E9883	POOLED PLATELETS CPD/XX/20-24C Open Irradiated ResLeu:<5E6 Plasma reduced/Saline added Buffy coat plts prep 4 units	E5925	Washed POOLED PLATELETS None/XX/20-24C Open Irradiated ResLeu:<5E6 7 units
Wash	OPEN	E9883	POOLED PLATELETS CPD/XX/20-24C Open Irradiated ResLeu:<5E6 Plasma reduced/Saline added Buffy coat plts prep 4 units	E5926	Washed POOLED PLATELETS None/XX/20-24C Open Irradiated ResLeu:<5E6 8 units
Wash	OPEN	E9883	POOLED PLATELETS CPD/XX/20-24C Open Irradiated ResLeu:<5E6 Plasma reduced/Saline added Buffy coat plts prep 4 units	E6368	Washed POOLED PLATELETS None/XX/20-24C Open Irradiated ResLeu:<5E6 Buffy coat plts prep 4 units
Wash	OPEN	E9883	POOLED PLATELETS CPD/XX/20-24C Open Irradiated ResLeu:<5E6 Plasma reduced/Saline added Buffy coat plts prep 4 units	E7635	Washed POOLED PLATELETS None/XX/20-24C Open Irradiated ResLeu:<5E6 Buffy coat plts prep 5 units
Freeze	OPEN	E9879	Apheresis RED BLOOD CELLS CP2D>AS3/XX/refg Irradiated ResLeu:<5E6 Plasma added	E5102	Frozen Apheresis RED BLOOD CELLS None/XX/<=65C Open Irradiated ResLeu:<5E6
Freeze	OPEN	E9880	Apheresis RED BLOOD CELLS CP2D>AS3/XX/refg Irradiated ResLeu:<5E6 Plasma added 1st container	E5103	Frozen Apheresis RED BLOOD CELLS None/XX/<=65C Open Irradiated ResLeu:<5E6 1st container

This is the last page of *VistA Blood Establishment Computer Software (VBECS) 2.3.2 Rev F Release Notes*.