



CPRS-VBECS Fixes (OR*3.0*332) Release Notes

NOVEMBER 2011

Department of Veterans Affairs
Office of Enterprise Development
Computerized Patient Record System Product Line

Revision History

The most recent entries in this list are linked to the location in the manual they describe.
Click on a link or page number to go to that section.

Date	Page	Change	Project Manager	Technical Writer
March 2011	All	Initial Release	K. Condie	T. Robinson
November 2011	various	Revisions from review	K. Condie	T. Robinson

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Introduction

OR*3.0*332 is the third patch released to address features of CPRS blood component and diagnostic test ordering changes. It also deals with several display issues, including how reports are formatted. The patch introduces several parameter changes or new parameters.

Functionality

This patch makes changes to the Blood Bank report in CPRS, with several items that sites have requested. Some of these changes are hard-coded, while others are controlled by parameter. Patch OR*3.0*332 also adds some parameters and changes others to add some flexibility for sites using the VBECS dialog and Blood Bank report in CPRS.

Pre-Conditions to Installation

OR*3*332 requires the following:

- OR*3*109
- OR*3*309

Changes and Fixes to the Blood Bank Report

- **CQ 18632** – The Blood Bank report has been changed to display the Division name instead of the number in the last column of the Units Available section. This change was made to the display only. The printed version of the report will continue to print the Division number due to limited space on the line.
- **CQ 18634** - Blood Bank Report displays warning: “ABO Rh: 1^Not able to open port”. This warning message comes back from VBECS when the VistALink is down. Test sites indicated that this message was confusing.

Resolution: Developers changed CPRS to display the user-defined error message in the parameter OR VBECS ERROR MESSAGE.
- **CQ 18708** - There are two places that display an error message when the VBECS VistALink port is down. Previously, the error message was inconsistent.

Resolution: Now, the same text defined in the OR VBECS ERROR MESSAGE parameter is displayed in these two places:
 - Patient Info Tab on the Blood Component and Diagnostic Test Order Form Dialog
 - The Blood Bank report

- **CQ 19330, 19467, 20038, Remedy 366911** – The AVAILABLE/ISSUED UNITS section of the Blood Bank report has been reformatted to make room for larger data fields and more columns. A new column Product ID has been added to fix a problem with missing data when a patient had more than one Product with the same Unit ID. To give further flexibility, a new parameter (OR VBECS AVAIL UNITS FORMAT) is included with this patch:

This parameter determines the format for how AVAILABLE/ISSUED UNITS display on the Blood Bank Report and the Patient Information screen on the Blood Bank Order Dialog.

The possible choices are:

- 0 (zero) or horizontal
- 1 or vertical
- 2 or split

What each choice will do to the display and printed report is explained below

- **0:HORIZONTAL**

- Horizontal displays fields across the page, one line per date/time.

The screenshot shows a software interface for a Blood Bank report. On the left is a sidebar with a tree view containing 'Lab Results', 'Most Recent', 'Cumulative', 'All Tests by C', 'Selected Tes', 'Worksheet', 'Graph', 'Microbiology', 'Anatomic Pal', 'Blood Bank' (highlighted), and 'Lab Status'. The main window is titled 'Blood Bank' and contains the following text:

ABO Rh: 0 Pos

---- BLOOD BANK ----

AVAILABLE/ISSUED UNITS:

Date Assigned	Unit ID	Prod ID	Component	ABO/Rh	Exp. Date	Locale	Division
2/28/2011@15:38	9999911110	04210	RED BLOOD CELLS	0 Pos	03/31/2011	BB	CHEYENNE VAMC
2/28/2011@15:37	9999911111	04210	RED BLOOD CELLS	0 Pos	04/05/2011	BB	CHEYENNE VAMC
2/28/2011@15:36	9999911112	04210	RED BLOOD CELLS	0 Pos	04/11/2011	BB	CHEYENNE VAMC
2/16/2011@10:19	000005556	04210	RED BLOOD CELLS	0 Pos	03/08/2011	BB	CHEYENNE VAMC
12/2/2010@17:31	00000805	48611	Apheresis FRESH FROZEN PLASMA	0 Pos	08/18/2011	BB	CHEYENNE VAMC

DIAGNOSTIC TESTS:

Date/Time	ABO	Rh	ABS	Test	Intrp	Test	Intrp	Test	Intrp	Division
02/28/2011@15:29	0	Pos	Neg							CHEYENNE VAMC
02/16/2011@10:19	0	Pos	Neg							CHEYENNE VAMC
02/16/2011@09:12	0	Pos	Neg							CHEYENNE VAMC
01/25/2011@13:27	0	Pos	Neg							CHEYENNE VAMC
01/21/2011@12:57	0	Pos	Neg							CHEYENNE VAMC
01/11/2011@09:31			Neg							CHEYENNE VAMC

At the bottom of the window is a navigation bar with buttons: 'Cover Sheet', 'Problems', 'Meds', 'Orders', 'Notes', 'Consults', 'Surgery', 'D/C Summ', 'Labs', and 'Reports'.

- Horizontal printed reports split the line if it is longer than 79 characters as shown below.

Report from: CHEYENNE VAMC

Station #442

Page 1

PATIENT BLOOD BANK REPORT

CPRS VBECs, PATIENT ELEVEN

666-66-1111 ECU/166-2

FEB 7, 1925 (86)

*** WORK COPY ONLY ***

Printed: 03/02/2011 13:56

----- BLOOD BANK -----

ABO Rh: O Pos

AVAILABLE/ISSUED UNITS:

Date Assigned	Unit/Prod #	Component	ABO/Rh	Exp. Date	Locale	Div #
2/28/2011@15:38	9999911110	RED BLOOD CELLS				
	04210		O Pos	03/31/2011	BB	442
2/28/2011@15:37	9999911111	RED BLOOD CELLS				
	04210		O Pos	04/05/2011	BB	442
2/28/2011@15:36	9999911112	RED BLOOD CELLS				
	04210		O Pos	04/11/2011	BB	442
2/16/2011@10:19	000005556	RED BLOOD CELLS				
	04210		O Pos	03/08/2011	BB	442
12/2/2010@17:31	00000805	Apheresis FRESH FROZEN PLASMA				
	48611		O Pos	08/18/2011	BB	442

DIAGNOSTIC TESTS:

Date/Time	ABO Rh	ABS	----- DAT -----						Div #
			--- Poly ---		--- IgG ---		--- Comp ---		
			Test	Intrp	Test	Intrp	Test	Intrp	
02/28/2011@15:29	O Pos	Neg							442
02/16/2011@10:19	O Pos	Neg							442
02/16/2011@09:12	O Pos	Neg							442
01/25/2011@13:27	O Pos	Neg							442
01/21/2011@12:57	O Pos	Neg							442
01/11/2011@09:31		Neg							442
01/11/2011@09:27	O Pos								442
12/02/2010@17:29	O Pos	Neg							442
11/09/2010@10:53	O Pos	Neg							442
06/02/2010@10:54	O Pos	Neg							442
04/06/2010@13:49	O Pos	Neg							442
07/23/2009@09:08	O Pos	Neg							442
05/19/2008@08:57	O Pos	Neg							442
Comment (ABO): Testing interrupted									
05/12/2008@10:39	O Pos	Neg							442
04/03/2008@15:36	O Pos	Neg							442
03/27/2008@16:14	O Pos	Neg							442
03/21/2008@14:00	O Pos	Neg							442
03/10/2008@12:44	O Pos	Neg							442
Comment (ABO): Other									
Comment (ABS): This is an other comment									
Comment (Rh): where can you enter the other comments									
01/28/2008@09:09	O Pos	Neg							442

COMPONENT REQUESTS:

Component Type	Units	Request date	Date wanted	Requestor	By
RED BLOOD CELLS	3	Feb 28, 2011 14:25	Feb 28, 2011 17:00	CL	CL
RED BLOOD CELLS	2	Feb 16, 2011 09:07	Feb 16, 2011 12:00	CL	CL
RED BLOOD CELLS	1	Feb 03, 2011 10:44	Feb 04, 2011 08:00	CL	CL
*** WORK COPY ONLY *** (continued...)					

1:VERTICAL

- Vertical displays fields down the page in sections per date/time.

Lab Results Blood Bank

---- BLOOD BANK ----

ABO Rh: 0 Pos

AVAILABLE/ISSUED UNITS:

Date/Time Assigned: 2/28/2011@15:38
Unit ID : 9999911110
Product ID : 04210
Component : RED BLOOD CELLS
ABO/Rh : 0 Pos
Expiration Date : 03/31/2011
Location : BB
Division : CHEYENNE VAMC

Date/Time Assigned: 2/28/2011@15:37
Unit ID : 9999911111
Product ID : 04210
Component : RED BLOOD CELLS
ABO/Rh : 0 Pos
Expiration Date : 04/05/2011
Location : BB
Division : CHEYENNE VAMC

Date/Time Assigned: 2/28/2011@15:36
Unit ID : 9999911112
Product ID : 04210

Cover Sheet Problems Meds Orders Notes Consults Surgery D/C Summ Labs Reports

- The Vertical printed report looks the same.

- **2:SPLIT HORIZONTAL**

- Split Horizontal keeps the Patient Information Screen the same as the HORIZONTAL format as shown below:

Blood Component and Diagnostic Test Order Form

Patient Information | Blood Bank Orders | Lab Results

Name: CPRSVBECs, PATIENT SSN: 666661111 ABO/Rh: O Pos

Lab Specimen ID: 2911020099 Expiration Date: 04/15/11 23:59

Units Available

Date Assigned	Unit ID	Prod ID	Component	ABO/Rh	Exp. Date	Location	Division
4/12/2011@13:52	W442020011112	E4394	Apheresis RED BLOOD CELLS	O Pos	05/02/2011	BLOOD BANK CHEYENNE VAMC	
4/12/2011@13:51	W442020011112	E4395	Apheresis RED BLOOD CELLS	O Pos	05/02/2011	BLOOD BANK CHEYENNE VAMC	
4/12/2011@13:50	W442030011112	E4394	Apheresis RED BLOOD CELLS	O Pos	05/02/2011	BLOOD BANK CHEYENNE VAMC	
4/12/2011@13:49	W442030011112	E4395	Apheresis RED BLOOD CELLS	O Pos	05/02/2011	BLOOD BANK CHEYENNE VAMC	
12/2/2010@17:31	00000805	48611	Apheresis FRESH FROZEN PLASMA	O Pos	08/18/2011	BLOOD BANK CHEYENNE VAMC	

Antibodies Identified
none

Transfusion Requirements
none

Transfusion Reactions **Date/Time**
none

- The Blood Bank Report splits the line if it is longer than 79 characters.

Lab Results | **Blood Bank**

ABO Rh: O Pos

AVAILABLE/ISSUED UNITS:

Date Assigned	Unit/Prod #	Component	ABO/Rh	Exp. Date	Locale	Division
2/28/2011@15:38	9999911110 04210	RED BLOOD CELLS	O Pos	03/31/2011	BB	CHEYENNE VAMC
2/28/2011@15:37	9999911111 04210	RED BLOOD CELLS	O Pos	04/05/2011	BB	CHEYENNE VAMC
2/28/2011@15:36	9999911112 04210	RED BLOOD CELLS	O Pos	04/11/2011	BB	CHEYENNE VAMC
2/16/2011@10:19	000005556 04210	RED BLOOD CELLS	O Pos	03/08/2011	BB	CHEYENNE VAMC
12/2/2010@17:31	00000805 48611	Apheresis FRESH FROZEN PLASMA	O Pos	08/18/2011	BB	CHEYENNE VAMC

DIAGNOSTIC TESTS:

Date/Time	ABO Rh	ABS Test	Intrp	DAT	Intrp	IgG	Intrp	Comp	Intrp	Division
02/28/2011@15:29	O Pos	Neg								CHEYENNE VAMC
02/16/2011@10:19	O Pos	Neg								CHEYENNE VAMC

Cover Sheet | Problems | Meds | Orders | Notes | Consults | Surgery | D/C Summ | Labs | Reports

- The Split Horizontal printed report splits the line if it is longer than 79 characters.

Report from: CHEYENNE VAMC Station #442
 PATIENT BLOOD BANK REPORT Page 1
 CPRSVBECS, PATIENT ELEVEN 666-66-1111 ECU/166-2 FEB 7, 1925 (86)
 =====
 *** WORK COPY ONLY *** Printed: 03/02/2011 14:04
 ---- BLOOD BANK ----

ABO Rh: O Pos

AVAILABLE/ISSUED UNITS:

Date Assigned	Unit/Prod #	Component	ABO/Rh	Exp. Date	Locale	Div #
2/28/2011@15:38	9999911110	RED BLOOD CELLS	O Pos	03/31/2011	BB	442
	04210					
2/28/2011@15:37	9999911111	RED BLOOD CELLS	O Pos	04/05/2011	BB	442
	04210					
2/28/2011@15:36	9999911112	RED BLOOD CELLS	O Pos	04/11/2011	BB	442
	04210					
2/16/2011@10:19	000005556	RED BLOOD CELLS	O Pos	03/08/2011	BB	442
	04210					
12/2/2010@17:31	00000805	Apheresis FRESH FROZEN PLASMA	O Pos	08/18/2011	BB	442
	48611					

DIAGNOSTIC TESTS:

Date/Time	ABO	Rh	ABS	Poly		IgG		Comp		Div #
				Test	Intrp	Test	Intrp	Test	Intrp	
02/28/2011@15:29	O	Pos	Neg							442
02/16/2011@10:19	O	Pos	Neg							442
02/16/2011@09:12	O	Pos	Neg							442
01/25/2011@13:27	O	Pos	Neg							442
01/21/2011@12:57	O	Pos	Neg							442
01/11/2011@09:31			Neg							442
01/11/2011@09:27	O	Pos								442
12/02/2010@17:29	O	Pos	Neg							442
11/09/2010@10:53	O	Pos	Neg							442
06/02/2010@10:54	O	Pos	Neg							442
04/06/2010@13:49	O	Pos	Neg							442
07/23/2009@09:08	O	Pos	Neg							442
05/19/2008@08:57	O	Pos	Neg							442
Comment (ABO): Testing interrupted										
05/12/2008@10:39	O	Pos	Neg							442
04/03/2008@15:36	O	Pos	Neg							442
03/27/2008@16:14	O	Pos	Neg							442
03/21/2008@14:00	O	Pos	Neg							442
03/10/2008@12:44	O	Pos	Neg							442
Comment (ABO): Other										
Comment (ABS): This is an other comment										
Comment (Rh): where can you enter the other comments										
01/28/2008@09:09	O	Pos	Neg							442

COMPONENT REQUESTS:

Component Type	Units	Request date	Date wanted	Requestor	By
RED BLOOD CELLS	3	Feb 28, 2011 14:25	Feb 28, 2011 17:00	CL	CL
RED BLOOD CELLS	2	Feb 16, 2011 09:07	Feb 16, 2011 12:00	CL	CL
RED BLOOD CELLS	1	Feb 03, 2011 10:44	Feb 04, 2011 08:00	CL	CL
*** WORK COPY ONLY *** (continued...)					

The OR VBECS AVAIL UNITS FORMAT parameter was created to address issues found when printing the Blood Bank report in the horizontal format. The option of displaying/printing AVAILABLE/ISSUED UNITS vertically has been created.

As more fields with variable lengths are added to this report, the length of the line may go beyond the 80 character limit for printing. This is not an issue with the Windows display. The information from the Patient Information tab on the Blood Component and Diagnostic Test Order Form dialog cannot be printed, so no attempt has been made to split the line when it goes beyond 79 characters. It functions the same when either HORIZONTAL or SPLIT HORIZONTAL is selected.

For both HORIZONTAL display formats the length of the line expands or contracts depending on the column width of each field and the length of the longest line. Because of this it is possible, though not likely, that the line will not split even if SPLIT HORIZONTAL is selected.

Each site can further customize the Blood Bank Report and Patient information display on the Blood Component and Diagnostic Test Order Form dialog by shortening the length of each line on the Horizontal formats by using the Location abbreviation instead of the Location Name. To do this, edit the parameter OR VBECS LOC ABBREV BB REPORT.

This parameter is new with this patch and only affects the display of the report. The printed report will display the Location abbreviation due to space Limitations.

- **CQ 19246: Blood Bank Report DAT Comment Is Missing the Last Line–** Previously, the comment for a Direct Antiglobulin Test (DAT) was missing the last line of the comment.

Resolution: This has been fixed so the entire comment is visible.

Changes and Fixes to the Blood Order Dialog

- **CQ 18512 –** The field requested the ability to alphabetically sort the items in the Reason for Request field.

Resolution: Developers added the new parameter OR VBECS REASON SORT ALPHA to enable sites to alphabetically sort the list of reasons in the Reason for Request field on the Blood Component and Diagnostic Test Order Form dialog.

- **CQ 19070** – With the VBECS 1.6.1.0 update, VBECS sends CPRS a ‘no blood required’ flag for some surgical procedures.

Resolution: This patch adds the CPRS logic to recognize this flag so that CPRS will no longer require a specimen for those orders.

Note: Both patch OR*3.0*332 and VBECS 1.6.1.0 must be installed before users will see this functionality.

- **CQ 19259, 19139, Remedy 382825, 383708, 408643, 464652** – Previously, CPRS saved the specimen unique identifier (UID) with the order and transmitted it to VBECS even if the Date/Time Wanted was past the specimen’s expiration date or if the order was delayed, which could cause confusion.

Resolution: If the order’s Date/Time Wanted is past the specimen’s expiration date or if the order is a delayed order, CPRS will no longer save the specimen UID with the order nor transmit the specimen UID.

- **CQ 19265: Display Reason for Request with All Child Orders** –The Reason for Request had previously only been saved with component orders.

Resolution: The Reason for Request will now be saved with all VBECS child orders, so it can be transmitted to VBECS. The Reason for Request displays in VBECS on the “VBECS – Order Details” screen.

- **CQ 19696, Remedy Ticket 429909, 471985, 424381** –Developers discovered that component requests with the same date/time were overwriting each other and ended up missing on the report.

Resolution: Developers corrected the problem and all of the data should now display.

- **CQ 19845** – Previously, there was a problem with the Item Ordered field of lab child orders. Although it did not affect the ordering functions, the field was inadvertently being stuffed with the Orderable Item pointer, which was incorrect. Because the Orderable Item and the Item Ordered point to completely different files, a FileMan Inquiry of the order appeared to be incorrect. Item Ordered was meant to be used by developers to troubleshoot problems, not to build the order. Item Ordered stored which item was selected off the Write Orders menu. For child orders, the Item Ordered field should be empty because the child orders came from the parent order, not from a selection on the Write Orders menu.

Resolution: Developers added some code to ensure the Item Ordered field is empty for child orders, which is correct.

- **CQ 20073, Remedy 457551** – Add Division Level to OR VBECS REASON FOR REQUEST

Resolution: Developers added DIVISION level settings to the parameter OR VBECS REASON FOR REQUEST. This parameter is being updated in this patch.

Miscellaneous Fixes

- Unnecessary code removed from routine ORWLR that displays the Lab Cumulative in CPRS Reports. This change may improve the speed that the report displays.
- **HL7 Review**–New codes have been added to STATUS^ORMVBEC for compliance with HL7 standards; pre-existing codes will continue to be respected for backwards compatibility.

Remedy Tickets Resolved by This Patch

- 366911
- 408643
- 382825
- 383708
- 429909
- 457551
- 366886
- 461972
- 464652
- 424381
- 471985