

ICD-10 Follow On Class 1 Software Remediation Project

Clinical Case Registries (CCR)

Application Version 1.5

Release Notes

ROR*1.5*19



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**Department of Veterans Affairs
Office of Information and Technology
Product Development**

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1. Introduction

1.1. Purpose

The purpose of these Release Notes is to identify enhancements to the Clinical Case Registries (CCR) package contained in patch ROR*1.5*19.

1.2. Background

On January 16, 2009, the Centers for Medicare & Medicaid Services (CMS) released a final rule for replacing the 30-year-old International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) code set with International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) with dates of service or dates of discharge for inpatients that occur on or after the ICD-10 activation date.

The classification system consists of more than 68,000 codes, compared to approximately 13,000 ICD-9-CM codes. There are nearly 87,000 ICD-10-PCS codes, while ICD-9-CM has nearly 3,800 procedure codes. Both systems also expand the number of characters allotted from five and four respectively to seven alpha-numeric characters. This value does not include the decimal point, which follows the third character for the ICD-10-CM code set. There is no decimal point in the ICD-10-PCS code set. These code sets have the potential to reveal more about quality of care, so that data can be used in a more meaningful way to better understand complications, better design clinically robust algorithms, and better track the outcomes of care. ICD-10-CM also incorporates greater specificity and clinical detail to provide information for clinical decision making and outcomes research.

ICD-9-CM and ICD-10-CM Comparison

ICD-9-CM	ICD-10-CM
13,000 codes (approximately)	68,000 codes (approximately)
3-5 characters	3-7 characters (not including the decimal)
Character 1 is numeric or alpha (E or V)	Character 1 is alpha; character 2 is numeric;
Characters 2 - 5 are numeric	Characters 3–7 are alpha or numeric (alpha characters are not case sensitive)
Decimal after first 3 characters	Same

ICD-9-CM and ICD-10-PCS Comparison

ICD-9-CM Procedure Codes	ICD-10-PCS
3-4 characters	7 alphanumeric characters
All characters are numeric	Characters can be either alpha or numeric. Letters O and I are not used to avoid confusion with the numbers 0 and 1.
All characters are numeric	Each character can be any of 34 possible values. The ten digits 0-9 and the 24 letters A-H, J-N and P-Z may be used in each character.
Decimal after first 2 characters	Does not contain decimals

1.3. Scope of Changes

NOTE: Existing ICD-9 functionality has not changed.

Patch ROR*1.5*19 makes the following changes to the CCR application:

- ICD-10-CM replaces ICD-9-CM as the diagnostic coding system for outpatient encounters with an encounter date on or after the ICD-10 Activation Date and inpatient treatment episodes with a discharge date on or after the ICD-10 Activation Date.
- ICD-10-PCS replaces the ICD-9-CM procedural coding system for inpatient treatment episodes with a discharge date on or after the ICD-10 Activation Date.
- There will be a period of time when VHA requires the use of dual code sets (ICD-9-CM, ICD-10-CM/ICD-10-PCS) to accommodate outpatient dates of service and inpatient discharge dates prior to and following the compliance date (the ICD-10 Activation Date) as well as for reporting and research purposes.
- Registry update process has been changed so that Reason for Selection for a patient added to a Registry can also be ICD-10 code in outpatient file, ICD-10 code in inpatient file or ICD-10 code in problem list.
- You can search for both ICD-10 diagnosis and procedure codes in the Report parameters, and Reports will show both sets of codes.
- ICD-10 diagnoses codes can be saved in Your Templates along with ICD-9 diagnoses codes.
- Common Templates have been updated to include ICD-10 codes.

Note: Pre-install routine saves the current Common Templates in ^TMP("ROR",\$J) global before updating them with ICD-9 and ICD-10 codes. Any changes done to Common Templates will be lost after the installation of this patch.

- CCR Registry information that is sent to the National Database via HL7 messages now can differentiate between ICD-9 and ICD-10 diagnosis codes.

Note 1: The CCR PD team released CCR Patch ROR*1.5*17 on June 18, 2012, which added the new PTSD Common Template and two new HEPC reports.

Note 2: The CCR PD team also released CCR Patch ROR*1.5*18, which includes the minimal technical code and data dictionary changes for 16 new registries. The changes have been absorbed into ROR*1.5*19 so that both patches may co-exist.

1.4. Dependent Patches

The following patches must be installed before ROR*1.5*19:

- ROR*1.5*5
- ROR*1.5*12
- ROR*1.5*18
- LEX*2*80
- ICD*18*57

1.5. Dependent Constraints

1. ICD-10 Diagnosis Codes Access for Template Setups

The CCR package needs access to ICD-10 diagnosis codes prior to the ICD-10 Activation Date. The template setups will require the functionality to search/lookup, add, edit, view and store both ICD code sets in the templates.

2. ICD-9 Diagnosis Code Extracts

The extract must be able to back pull all historical data for the past 20 years for new patients; therefore, the nightly extract will have to continue to have the ability to extract ICD-9 codes after the ICD-10 Activation Date.

1.6. Documentation

The CCR manuals are posted on the [VistA Documentation Library \(VDL\)](#) page.

The following CCR manuals are updated with changes for ROR*1.5*19:

- Installation Guide
- Technical Manual/Security Guide
- User Manual

2. Reason for Selection

The Registry update process for the CCR package now uses the “ICD-10” code set designations in the **Reason for Selection** within the **VistA CCR Patient Data Editor Selection Rules** to show the following:

- ICD-10 code in problem list
- ICD-10 code in outpatient file
- ICD-10 code in PTF file

List of Registry Patients with ICD-9 and ICD-10 Reasons

List of Registry Patients								
Registry:	VA HEPC						Report Created:	03/26/2012@09:50
Patients:	Both Confirmed and Pending						Task Number:	50865
							Last Registry Update:	03/20/2012
							Last Data Extraction:	01/01/1996
Other Diagnoses: Exclude								
Diagnoses								
(ICD-9)	291.1; 291.2; 291.4; 291.8; 291.81; 291.89; 291.9; 303.00; 303.01; 303.02; 303.03; 305.00; 305.01; 305.02; 305.03; 357.5; 425.5; 535.3; 535.30; 535.31; 571.0; 571.1; 571.2; 571.3; 790.3; 977.3; 980.0; 980.1; 980.8; 980.9; E860.0; E860.1; E860.2; E860.8; E860.9; E947.3; V11.3; V61.41; V79.1							
(ICD-10)	F10.10; F10.120; F10.121; F10.129; F10.14; F10.150; F10.151; F10.159; F10.180; F10.181; F10.182; F10.188; F10.19; F10.20; F10.21; F10.220; F10.221; F10.229; F10.230; F10.231; F10.232; F10.239; F10.24; F10.250; F10.251; F10.259; F10.26; F10.27; F10.280; F10.281; F10.282; F10.288; F10.29; K85.2; O99.310; O99.311; O99.312; O99.313; O99.314; O99.315; Z71.41							
This report contains confidential patient information and must be handled in accordance with established policies.								
NOTE: Data for "Diagnosed at this Facility" is only available for patients confirmed after local installation of patch ROR*1.5*14 (approximately Spring 2011)								
#	Patient Name	SSN	Reasons	Selection Date	Confirmation Date	Pending Comments	Diagnosed at this Facility	
1	BAGGINS, FRODO	1111	ICD-10 code in outpatient file	10/01/2013				
2	KAPIL, DHONI	3456	ICD-9 code in problem list	03/16/2012				
3	KAPIL, KOHLI	8787	ICD-10 code in problem list	03/16/2012				
4	KAPIL, PATHAN	9896	ICD-9 code in outpatient file	03/15/2012				
5	KAPIL, TENDULKAR	9894	ICD-10 code in inpatient file	03/20/2012				

2.1. Dual Code Display

The CCR package has the ability to display either ICD-9-CM and ICD-10-CM diagnoses in the **Reason for Selection** column within the **VistA Clinical Case Registry Patient Data Editor Selection Rules**. This is determined based on the following:

1. The date the patient is added to the registry
2. The registry extract identifying a patient with the code set active for that date.

Based on those criteria, the CCR package then provides the ability to report either “ICD-10 code” or “ICD-9 code” descriptions, as appropriate, for the Reason for Selection of the patient to the registry.

List of Registry Patients Reasons for Selection ICD-10 Reasons

Clinical Case Registries - [List of Registry Patients]		
File Window Help		
<div> <div> List of Registry Patients </div> <div> <p> Registry: VA HIV Patients: Confirmed Other Diagnoses: All </p> <p> Report Created: 10/11/2012@14:46 Task Number: 208655 Last Registry Update: 10/11/2012 Last Data Extraction: 10/11/2012 </p> <p> This report contains confidential patient information and must be handled in accordance with established policies. </p> </div> </div>		
#	Patient Name	Reasons
1	CCRPATIENT,PTFONE	ICD-9 code in outpatient file
2	CCRPATIENT,PTFONE	HIV Ab test positive
3	CCRPATIENT,PTFONE	ICD-9 code in inpatient file
4	CCRPATIENT,CHRISPLPROC	ICD-10 code in problem list ICD-10 code in outpatient file
5	CCRPATIENT,CHRISPOVPROC	ICD-10 code in outpatient file
6	CCRPATIENT,CHRISPTFPROC	ICD-10 code in inpatient file
7	CCRPATIENT,CHRISPTFPROCTWO	ICD-10 code in inpatient file
8	CCRPATIENT,DAAEXCL	ICD-10 code in outpatient file
9	CCRPATIENT,DAAINCL	ICD-10 code in outpatient file
10	CCRPATIENT,PTFONE	ICD-10 code in inpatient file

3. Diagnoses and Procedures Reports

3.1. Diagnosis Reports

The CCR Diagnoses and Procedures Reports now use the generic ICD diagnosis code and procedure code designation “ICD” in the report header, the section headers, and the column headers.

CCR Diagnosis and Procedures Report Headers

Diagnoses

Registry: VA HIV
Date Range: 01/01/2012 - 12/31/2012
Clinics: ALL
Divisions: ALL
Patients: Added on any date
Options:
ICD: ALL

Report Created: 10/11/2012@14:47
Task Number: 208656
Last Registry Update: 10/11/2012
Last Data Extraction: 10/11/2012

This report contains confidential patient information and must be handled in accordance with established policies.

Number of Patients	Number of Codes	Number of Different Codes
18	80	25

ICD Codes

#	Code	Diagnosis	Number of Patients	Number of Codes
1	(ICD10) A38.0	Scarlet fever with otitis media	1	2
2	(ICD10) A57.	Chancroid	1	1
3	(ICD10) B17.10	Acute hepatitis C without hepatic coma	8	11
4	(ICD10) B17.11	Acute hepatitis C with hepatic coma	2	3
5	(ICD10) B19.20	Unspecified viral hepatitis C without hepatic coma	2	2
6	(ICD10) B19.21	Unspecified viral hepatitis C with hepatic coma	1	1
7	(ICD10) B20.	Human immunodeficiency virus (HIV) disease	9	15

For the Diagnoses Report, the CCR package now prints the column and sections headers with the generic code set indicator “ICD”.

Diagnosis Report Column and Section Headers

Clinical Case Registries - [Diagnoses]

#	ICD10	Description	Count	Count
21	(ICD10) O98.713	Human immunodef virus disease comp preg, third trimester	1	2
22	(ICD10) O98.719	Human immunodef virus disease comp pregnancy, unsp trimester	2	2
23	(ICD10) V72.0XXD	Driver of bus injured in ctn w 2/3-wld mv nostraf, subs	1	2
24	(ICD10) Z21.	Asymptomatic human immunodeficiency virus infection status	3	6
25	(ICD10) Z22.52	Carrier of viral hepatitis C	1	2

Patients

#	Patient Name	SSN	Date of Death	ICD			
				Code	Diagnosis	Date	Source
1	CCRPATIENT,CHRISPLPROC	3728		(ICD10) B17.10	Acute hepatitis C without hepatic coma	09/04/2012	PB
				(ICD10) B20.	Human immunodeficiency virus [HIV] disease	09/04/2012	PB
2	CCRPATIENT,CHRISPOVPROC	2435		(ICD10) B17.10	Acute hepatitis C without hepatic coma	09/04/2012	O
				(ICD10) B20.	Human immunodeficiency virus [HIV] disease	09/04/2012	O
3	CCRPATIENT,CHRISPTFPROCTWO	9283		(ICD10) B17.10	Acute hepatitis C without hepatic coma	09/05/2012	I
				(ICD10) B20.	Human immunodeficiency virus [HIV] disease	09/05/2012	I
4	CCRPATIENT,DAAEXCL	4033		(ICD10) B17.10	Acute hepatitis C without hepatic coma	09/06/2012	O
				(ICD10) B20.	Human immunodeficiency virus [HIV] disease	09/06/2012	O

Done

10.4.230.253 @ 93%

MANVUS, CHRISTOPHER

3.2. Procedure Reports

For the Procedures Report, the CCR package now displays “Inpatient (ICD)” instead of “Inpatient (ICD-9)” in the Procedures section of the Procedures Report setup screen.

Procedures Report, Procedures Section

Human Immunodeficiency Virus Registry Report			
Procedures			
Date Range: Type Year [] Fiscal []			
Scheduled to Run on Day 10/11/2012 at 14:43:19 Repeat []			
Comment []			
Include patients confirmed in the registry: Before the date range [] During the date range [] After the date range []			
Procedures: <input checked="" type="checkbox"/> Inpatient (ICD) <input checked="" type="checkbox"/> Outpatient (CPT)			
Patients: <input checked="" type="checkbox"/> Selected procedures were performed <input type="checkbox"/> No selected procedures were performed			
<input type="checkbox"/> Only patients who have received any care during the date range			
Report Type: <input checked="" type="checkbox"/> Complete <input type="checkbox"/> Summary			
ICD: <input checked="" type="checkbox"/> Include All <input type="checkbox"/> Selected only			
Code Set: [ICD-9] Search by: [Description] Search []			
Group Name: [Procedures] Code Set: [ICD-9]			
CPT: <input checked="" type="checkbox"/> Include All <input type="checkbox"/> Selected only			
Search by: [Description] Search []			
Utilization Date Range: Type Year [] Fiscal []			
Diagnoses: <input checked="" type="checkbox"/> Include All <input type="checkbox"/> Selected only			
Search []			
[Show Report List] [Load Parameters] [Save Parameters] [Default Parameters] [Run] [Cancel]			

4. ICD Diagnosis or Procedure Code Search

The CCR package allows the user to select ICD diagnosis or procedure codes during the Diagnoses and Procedure reports setup process.

You can select either ICD-9-CM or ICD-10-CM diagnosis codes in the Diagnoses Report setup, or ICD-9-CM or ICD-10-PCS procedure codes in the Procedures Report setup within the drop-down menu.

- You can save the ICD-10 diagnoses codes in Your Templates along with ICD-9 diagnoses codes.
- The Common Templates now include ICD-10 codes.
 - Pre-install routine saves the current Common Templates in ^TMP("ROR",\$J) global before updating them with ICD-9 and ICD-10 codes.
 - Any changes done to Common Templates will be lost after the installation of this patch.

Note: ICD-10 codes can be searched for prior to as well as on or after the ICD-10 Activation Date.

ICD Code Set Drop-Down Menu

The screenshot displays the 'Hepatitis C Registry Report' interface. The 'Diagnoses' section is active, showing a 'Date Range' with 'Type' set to 'Year' and 'Fiscal' unchecked. The 'Scheduled to Run on' section shows 'Day' as 6/12/2012, 'at' 13:05:12, and 'Repeat' as a dropdown. Below this, 'Include patients confirmed in the registry' has three checked options: 'Before the date range', 'During the date range', and 'After the date range'. The 'Report Type' section has 'Complete' selected. The 'ICD' section shows 'Include All' selected, with 'Code Set' set to 'ICD-9' and 'Search by' set to 'Code'. A search box contains '921.0'. A table lists ICD codes with columns for Name, Code, and Description. The first row is 'BLACK EYE NOS' with code '921.0' and description 'BLACK EYE, NOT OTHERWISE SPECIFIED'. To the right, a 'Group Name' section shows a table with columns for Name, Code, and Code Set. Below this, a 'Divisions' section has 'Include All' selected. At the bottom, a 'Clinics' section is visible.

5. ICD Diagnosis Code Extract

The CCR package now differentiates between ICD-9-CM and ICD-10-CM diagnosis codes in the Data Extraction Process.

The nightly extract continues to extract ICD-9 codes (because of backpulls for new patients where all historical data for the past 20 years is extracted and overlap time) and are able to extract ICD-10 codes from whatever fields have new ICD-10 codes.

The Dates of Interest are specific to the dates of registry-specific diagnosis or lab test results found in the searched files, and are the dates upon which the code set for the extract is based.

5.1. Historical Encounters

The CCR package is able to extract patients from historical encounters that contain HEPC or HIV ICD diagnosis codes by changing the Date of Interest from the historical encounter visit date to the date the historical encounter was created.

To allow a patient to be added to the pending list of the registry if the following conditions for the historical encounter visit date are met:

- The visit date is *on or after* the ICD-10 Activation date.
- The visit date is created *on or after* the ICD-10 Activation date.
- The visit date contains HEPC or HIV ICD10 diagnosis codes.

In CPRS, Date/Time of Visit is prior to current date:

Location for Current Activities

Select the appointment or visit that should be associated with the note or orders .

OK Cancel

Encounter Location
CHY EMERGENCY ROOM Sep 25,2012@14:57

Clinic Appointments Hospital Admissions New Visit

Visit Location
CHY EMERGENCY ROOM
CHY ENDO PROC FOR OR PACKAGE
CHY ENDO PROCEDURE
CHY ENT GIBBENS
CHY ENT GIBBENS WALK IN
CHY ENT ROMANO
CHY EYE RETINA

Date/Time of Visit
Sep 25,2012@14:57 ...

☒ Historical Visit: a visit that occurred at some time in the past or at some other location (possibly non-VA) but is not used for workload credit.

6. ICD Diagnosis and Procedure Code Transmission

The CCR package is able to differentiate between ICD-9-CM and ICD-10-CM diagnosis codes in the transmission process from VistA sites to the National Database and also support the new ICD-10-CM Diagnosis Code set in the HL7 messaging process.

The Dates of Interest are specific to the dates of registry-specific diagnosis or lab test results found in the searched files. If the date of interest is *on or after* the ICD-10 Activation Date the CCR package has the ability to do the following:

- Transmit ICD-10-CM diagnosis codes up to eight characters (including the decimal point that follows the third character).
- Transmit an ICD-10-CM diagnosis code set indicator/flag.
- Transmit “Automatically Added – ICD10” or “Automatically Added – ICD10 and Lab” table code descriptions, but this is only true if the Reason for adding the patient to the registry is because the extract code found a registry-specific ICD-10 diagnosis code.

The same is true for the new ICD-10-PCS procedure code set in the HL7 messaging process. If the date of interest is *on or after* the ICD-10 Activation Date, the CCR package has the ability to do the following:

- Transmit ICD-10-PCS procedure codes up to eight characters (including the decimal point that follows the third character).
- Transmit an ICD-10-PCS procedure code set indicator/flag.

7. Technical Information

7.1. Routines

Some CCR routines were modified to replace direct global reads and old APIs with new Standards and Terminology Services (STS) APIs and Lexicon APIs wherever possible. The following new routines are added:

Routine / File Name	Function
RORP019	Post-Install routine to update records in ROR REGISTRY PARAMETERS (File #798.1) and update and add new records in ROR SELECTION RULE (File #798.2)
ROR Selection Rule (File #798.2)	CODING SYSTEM (#7)
	VA HIV PROBLEM (ICD10)
	VA HIV PTF (ICD10)
	VA HIV VPOV (ICD10)
	VA HEPC PROBLEM (ICD10)
	VA HEPC PTF (ICD10)
	VA HEPC VPOV (ICD10)
ROR XML ITEM (File #799.1)	ICD
	ICD10
	ICDFILT
	ICDLST

8. GUI Installation Instructions

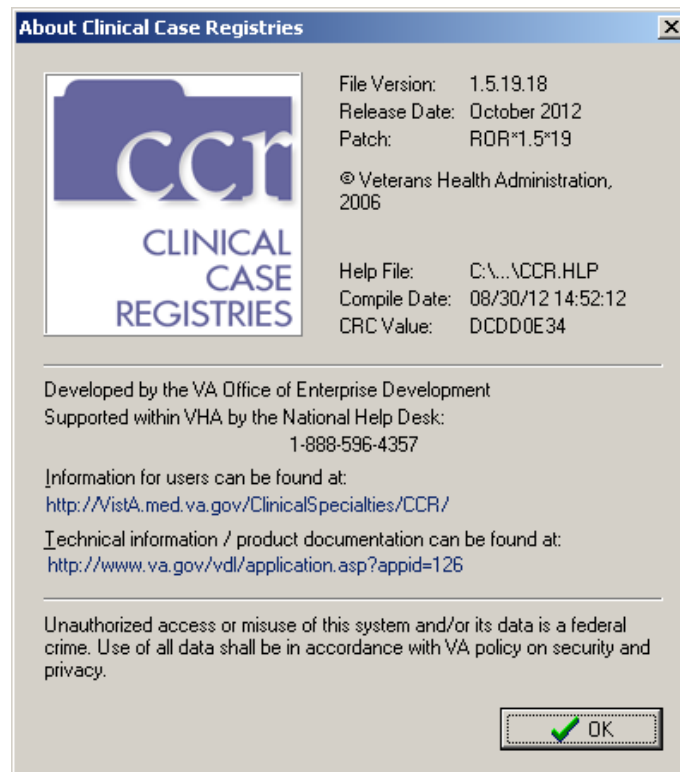
8.1. Pre-Installation Instructions

Patch ROR*1.5*19 identification is as follows:

- File Name: ROR1_5P19GUI.ZIP
- GUI Version: ROR1_5P19
- Contents: Zipped GUI
- Transfer Mode: Binary
- CRC Number: DCDD0E34

Patch ROR*1.5*19 includes a revised Graphical User Interface (GUI) application distributed to the appropriate workstations. After the patch is installed correctly, and the GUI is updated, the version of the GUI will be 1.5.19.

1. Unzip the **ROR1_5P19GUI.ZIP** into a temporary folder.
2. Open the temporary folder and double-click the file **CCRSetup.exe** to begin the install.
3. Wait until the setup Wizard prepares the installation procedure. A Welcome message displays.
4. Click **Next** to continue the installation.
5. Select the directory in which to install the CCR GUI. We recommend that you accept the default directory **C:\Program Files\Vista\Clinical Case Registries**.
Note: To select a different location, click **Change** and select the directory.
6. Click **Next** to proceed with installation.
7. Review the installation settings and click **Install** to proceed. The setup Wizard finishes the installation and a confirmation screen displays.
8. Click **Finish**.



8.2. UnInstall Instructions

To uninstall the GUI, use the “**Uninstall Clinical Case Registries**” option of the “**Clinical Case Registries**” section of the “**Programs**” menu.

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