



### RESOURCE AND PATIENT MANAGEMENT SYSTEM

# **RPMS Electronic Health Record**

# (EHR)

# Patch 8 Guide

Version 1.1 Patch 8 June 2011

Office of Information Technology (OIT) Division of Information Resource Management Albuquerque, New Mexico

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# 1.0 Introduction

This document provides an overview of RPMS-EHR 1.1 Patch 8 and assumes that the site has already completed the setup for RPMS-EHR 1.1 and has loaded patches up through Patch 7.

1. Contents of Distribution

ehr\_0110.08.exe - Self-extracting zip file ehr\_0110.08n - Installation notes (this file) ehr\_0110.08k - KIDS build ehr\_0110.08o.pdf – Patch Guide c0c\_0120.k c0c\_0120.n ciao0110.013002k - KIDS build (required only if using non-Vista Imaging "Image" component) ciao0110.013002n - Patch description

2. This patch has several dependencies which need to be loaded in a specific order. Dependencies/System Requirements include:

VA Kernel v8.0 or later VA FileMan v22.0 or later Cache v5.0 or later EHR\*1.1\*7 Microsoft .NET Framework v2.0 BJPC\*2.0\*5 APSP v7.0 Patch 1010 GMRA V4 patch 1001 VistA Imaging v3.0 and ciao0110.013001k (required only if installing ciao0110.013002k)

**PLEASE** thoroughly review this manual, patch notes, and requirements.

**PLEASE** also review the documentation for concurrent releases:

- EHRv1.1 p1 Manuals
- TIUv1.0 p1008 (Text Integration Utility)
- BHSv1.0p5 (Health Summary Components)
- GMRAv4.0p1001 (Adverse Reaction Tracking)

\_\_\_\_\_

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- C32 Installation and Configuration Manuals
- e-Prescribing Manuals

This delivers significant changes to the RPMS Adverse Reaction Tracking package and requires manual clean up of free text allergies. Please refer to the updated Application User Guide.

Sites MUST perform the Free Text Allergy cleanup documented in the GMRA 4.0p1001 notes and Adverse Reaction Tracking User Manual as a first priority.

\*\*\* Allergy dialog in Orders component is now disabled \*\*\* If you have not done so, you MUST perform the conversion to allergy entry throughout the Adverse Reaction Cover Sheet component that was delivered in EHRv1.1p1 immediately.

# 2.0 Enhancements, Fixes, and New Features

The following provides general information about the fixes and enhancements for Patch 8. Please see the following sections for detailed information, set up, and reference to supporting documentation.

### 2.1 Adverse Reaction Notifications (Fix)

Adverse reaction notifications now drop off when the allergy is verified, inactivated or marked entered in error.

# 2.2 Adverse Reaction Tracking (Enhancement)

The user is no longer able to enter a free text allergy (changed with GMRA 4.0 p1001). Changes to the adverse reaction entry dialog changes include:

- Nature of reaction pre-populated and not editable
- Removed mechanism field
- Added Event Code field (mandatory, mapped to mechanism)
- Added Source of information (mandatory)
- Added Date/Time to document onset of signs/symptoms (optional)
- Added Source for signs/symptoms (optional)

### 2.2.1 New Adverse Reaction

Use the "New Adverse Reaction" option on the right-click menu to enter a new adverse reaction for the current patient.

After selecting this option, the application displays the Look up Causative Agent dialog.

characters)	Search

Figure 2-1: Initial Look up Causative Agent dialog

The following provides information about No Known Allergies and Known Allergies.

#### 2.2.1.1 No Known Allergies

The "No Known Allergies" checkbox does not appear on this dialog if the current patient has active allergies.

If the "No Known Allergies" check box does display and you want to record that the patient has no known allergies, check the checkbox.

#### 2.2.1.2 Known Allergies

Use the following fields to enter a known allergy.

#### **Enter causative agent for Adverse Reaction**

Enter at least three characters in this field as the search criteria.

Click Search. One of two things will occur: (1) the application will not find the causative agent or (2) the application will find the causative agent.

#### No Causative Agent Found

If no causative agent is found, the application will display the Causative Agent Not On File information message.

Causativ	e Agent Not On File - No Matches for BLACKNUTS	x
?	The agent you typed was not found in the database. Consider the common causes of search failure: Misspellings Typing more than one agent in a single entry Typing "No known allergies" Select "NO" to attempt the search again. Carefully check your sp	selling.
	try an alternate spelling, a trade name, a generic name or just er the first few characters (minimum of 3). Enter only one allergy at Use the "No Known Allergies" check box to mark a patient as NKA Select "YES" to send a bulletin to the allergy coordinator to reque assistance. Only do this if you've tried alternate methods of find causative agent and have been unsuccessful.	itering a time.
	Select "CANCEL" to abort this entry process.	

Figure 2-2: Causative Agent Not On File information message

- Click Yes to send a bulletin to the allergy coordinator to request assistance. Use this option only if your have tried alternate methods of finding the causative agent and have been unsuccessful.
- Click No to attempt the search again. Check your spelling, try an alternate spelling, etc.
- Click Cancel to exit the entry process.

#### **Causative Agent Found**

If the causative agent is found, the application will display a list of possible matches in the lower group box of the Look up Causative Agent dialog.



Figure 2-3: Sample records retrieved in lower group box

Select a matching entry in the lower group box and then click OK (otherwise, click Cancel). After clicking OK, the application will display the Create Adverse Reaction dialog.

### 2.2.1.3 Create Adverse Reaction Dialog

Use the Create Adverse Reaction dialog to select those options needed in the record by selecting from the various group boxes and/or fields.

Create Adverse Reaction				_ 0
Reaction Causative agent:			C Observed	
PENCICLOVIR			Observer.	
Nature of Reaction			Teter,Shirley	
Drug	-		Reaction Date/Time	Contraction of the second
vent Code			1000001000071100	
		•	Seventy	
ource of Information		_		*
	-		1.0	
Signs/Symptoms				
Available		Selected		
	_			
AGITATION	• \$			
AGRANULOCYTOSIS		15		
ALOPECIA				
ANAPHYLAXIS ANEMIA	\$			
ANOREXIA				
ANXIETY	42		-	1000
APNEA		Date/Time:		
APPETITE, INCREASED	-			
ARRHYTHMIA	<u> </u>	Source:	1	+
omments				
- 1				1
Current			OK	Cancel

Figure 2-4: Sample Create Adverse Reaction dialog

Below are the various buttons, group boxes, and fields on the dialog.

#### **Current button**

To view the patient's current allergies, click the Current button(on the Create Adviser Reaction dialog) to access the Current Allergies pop-up.



Figure 2-5: Sample Current Allergies for patient pop-up

#### **Causative agent**

This field displays the causative agent for the adverse reaction. Change this field by clicking the ellipsis button to go to the Look up Causative Agent dialog.

#### **Observed checkbox**

Check this checkbox to cause the fields in the Observed group box to become active. Use these fields to enter the observed reactions.

**Observer**: this is the name of the person who was the observer when the reaction occurred (the default is the current logon user). Change the Observer field by selecting from the drop-down list.

**Reaction Date/Time**: this is the date and time when the reaction was observed. This can be a historical date.

**Severity**: this is the severity of the reaction, which can be Mild, Moderate, or Severe.

#### **Nature of Reaction**

The application populates this field (cannot be changed), based on the causative agent selected.

#### **Event Code**

This required field has the following options: Allergy to Substance, Drug Allergy, Drug Intolerance, Food Allergy, Food Intolerance, Propensity to Adverse Reactions, Propensity to Adverse Reactions to Substance, Propensity to Adverse Reactions to Drug, Propensity to Adverse Reactions to Food.

#### Source of Information

This required field has the following options: Patient, Spouse, Family, Friend, Other Source, Chart Review, Medical Provider, External Source.

#### Signs/Symptoms

Use the Signs/Symptoms group box to select one or more signs/symptoms and move them to the Selected field. At least one sign/symptom (in the Selected field) is required.

- To move a sign/symptom from the Available field to the Selected field, highlight it and then click the right-pointing arrow.
- To move a sign/symptom from the Selected field to the Available field, highlight it and then click the left-pointing arrow.
- To move all of the sign/symptoms from the Selected field to the Available field, click the left-pointing double arrow (no selection is necessary).

**Note:** Search for a sign/symptom in the Available field by typing a few characters in the free text field. The list will scroll to the first match.

#### Date/Time

The default is NOW. Populate this field with the date/time of the reaction.

#### Source

Populate this optional field with the source of the signs/symptoms

### Comments

Use the Comments field to enter any comments about the adverse reaction (free-text field).

After the Create Adverse Reaction dialog is complete, click OK to save the data (otherwise, click Cancel).

After clicking OK, the new adverse reaction record will display in the Allergies component, showing the Agent (Causative Agent) and Reaction (Nature of Reaction). The status of the record will be Unsigned.

Also, the record will appear on the Patient Postings pop-up. The Status will be UNSIGNED.

**Note:** The new adverse reaction must be signed in order to be available for display throughout the application and participate in order checking. See "Signing Adverse Reaction" for more information.

### 2.2.2 Edit Adverse Reaction

Edit any adverse reaction record in the Adverse Reaction grid by right-clicking on the record and then selecting the "Edit Adverse Reaction" option. This process accesses the Edit Adverse Reaction dialog. This dialog has the same fields are the Create Adverse Reaction dialog. See "Create Adverse Reaction Dialog" for more information about the fields.

When the dialog is complete, click OK (otherwise, click Cancel). After clicking OK, the data will be changed on the Adverse Reactions grid.

### 2.2.3 Deleting Adverse Reaction

Once an adverse reaction has been signed, it cannot be deleted through RPMS EHR.

Providers can delete their own unsigned adverse reactions that were entered in error. To delete a selected unsigned record, right-click on the record and select the "Delete Adverse Reaction" option. The application displays the Confirm information message.

Confirm	×
2	Are you sure you want to delete the RAGWEED adverse reaction?
	Yes No

Figure 2-6: Sample Confirm information message

Click Yes (otherwise, click No). After clicking yes, the selected allergy record will be removed from the Adverse Reactions grid.

### 2.2.4 Signing Adverse Reaction

Sign an unsigned adverse reaction record by right-clicking on it and then selecting the "Sign Adverse Reaction" option.

If the signer has permission to ENTER and VERIFY adverse reactions, then the Adverse Reactions grid will show the status as Verified.

If the signer Has permission to ENTER (only) adverse reactions, then the Adverse Reactions will show the status as Unverified.

If you do not use this option and you change patients, the application will display the

gnature will be applie	d to checked	items	
Adverse Reaction			
Adverse Reaction	n to RED MEA	T	

Figure 2-7: Sample Review/Sign Changes

Click OK to have your signature applied to the Adverse Reaction item (otherwise, click Cancel).

### 2.2.5 Chart Review

If a patient and visit have been selected and the Chart Review component has been loaded, the Chart Review option on the right-click menu will be available.

Use the Chart Review option to do two things: (1) document that the Allergies component was reviewed or (2) verify that there are no active allergies at the time of the visit. This is part of the Meaningful Use initiative.

#### Using the Reviewed option

This option is only active if there are records in the Adverse Reactions grid.

Reviewed	
No Active	Problems

Figure 2-8: Reviewed option for Chart Review

Highlight the "Reviewed" option. This documents that the Allergies has been reviewed for the patient.

#### Using the No Active Allergies option

This option is only active if there are no records in the Allergies component.

Review	ved	
No Act	ive Allergies	

Figure 2-9: No Active Problems option for Chart Review

Highlight the "No Active Problems" option. This verifies that there are no active problems for the patient.

Document No Active Allergies if the component displays 'No Known Allergies' or 'No Adverse Reactions." If 'No Allergy Assessment' is displayed and the patient has no allergies, then document 'No Known Allergies.

### 2.2.6 Entered in Error

If a particular allergy record was entered in error, highlight it, and then select the "Entered in Error" option on the right-click menu. Use this for signed and/or verified entries where the entry was truly an error and entered on the wrong patient.

The application will confirm this action.



Figure 2-10: Sample Confirm information message for entered in error option

Click Yes to mark the record as Entered in Error (otherwise, click No). After clicking Yes, the record will be marked as Entered in Error. If you are viewing the "Active" adverse reaction records, then the "Entered in Error" record will be removed.

### 2.2.7 Inactivate Adverse Reaction

To inactivate a particular allergy record, highlight it, and then select the "Inactivate Adverse Reaction" option on the right-click menu.

The application will confirm this action.

Confirm	X
2	Are you sure you want to inactivate the PEACHES adverse reaction?
	<u>Yes</u> <u>N</u> o



Click Yes to inactivate the record (otherwise, click No.) After clicking Yes, the application will display the Reason Prompt.



Figure 2-12: Reason Prompt

Click either the of the radio button to provide a reason for the inactivation. Then click OK (otherwise, click Cancel). After clicking Yes, the application stamp dates the record in the AnAct Date field with the current date and time.

### 2.2.8 Reactivate Adverse Reaction

To reactivate a particular allergy record, highlight it, and then select the "Reactivate Adverse Reaction" option.

**Note:** You might need to select the All status in order to find the record.

The application will confirm this action.

Confirm	X
2	Are you sure you want to reactivate the PEACHES adverse reaction?
	<u>Yes</u> <u>N</u> o

Figure 2-13: Sample Confirm information message for reactivate action

Click Yes to reactivate (otherwise, click No). After clicking Yes, the application removes the date-time stamp from the AnAct Date field and the record looks like a new record added to the Adverse Reactions grid.

### 2.2.9 Inability to Assess

Use the Inability to Assess to mark the patient as being "not assessable" for adverse reactions for the particular visit.

Select the "Inability to Assess" option on the right-click menu. The application will display the Reason Prompt dialog.

Reason Prompt	×
Please select a reason:	
O UNCONSCIOUS	CAREGIVER DOES NOT KNOW
C LANGUAGE BARRIER	PATIENT DOES NOT KNOW
C ALTERED MENTAL STATUS	C OTHER
	0K. Cancel

Figure 2-14: Reason Prompt for Inability to Access option

Click one of the reasons and then click OK (otherwise, click Cancel). After clicking OK, the application marks the Adverse Reactions grid with special text about the reason for the inability to access the patient.

		Adverse Reaction			
Unassessable PATIENT DOES NOT KNOW and no Known Allergies					
				_	
Status	C Active				
<ul> <li>All</li> </ul>	C Active				

Figure 2-15: Sample text marking the Adverse Reactions grid about the reason for the inability to assess the patient

In the above screen capture, the user select the PATIENT DOES NOT KNOW reason on the Reason Prompt.

# 2.3 Adverse Reaction Verifier Dialog (Enhancement)

- Added button to view class and ingredients
- Added event code (mandatory)
- Added source of information (mandatory)
- Added Date/Time to document onset of signs/symptoms (optional)
- Added source for signs/symptoms (optional)
- Verifier is stored but originator is now retained as the user who entered adverse reaction

The Verify Adverse Reactions option allows a designated verifier to verify the completeness of data entered by the clinical users into the Adverse Reaction Tracking System. The verifier is usually a pharmacist, as that person has knowledge of the technical data required to allow order checks to function properly. We recommend that, at minimum, all observed and medication adverse reactions are manually verified; it is strongly encouraged that **all** reactions are manually verified.

Only those with the appropriate security key can verify. If you have verification permissions and you enter an adverse reaction, signing it also verifies it. Otherwise, signing it just releases it for verification.

Users holding the appropriate key and membership in the appropriate mailman group will receive notifications in the EHR of reactions requiring verification. Double clicking on the notification will change patients and bring up the verification dialogue.

Verify Adverse Reaction		→
Reaction       Causative agent:       AMOXICILLIN       Nature of Reaction       Drug       Event Code       DRUG ALLERGY       Source of Information       PATIENT	✓ AM111	Observed Observer:  Reaction Date/Time  Severity
Signs/Symptoms Available AGITATION AGRANULOCYTOSIS ALOPECIA ANAPHYLAXIS ANEMIA ANOREXIA ANOREXIA ANOREXIA ANOREXIA ANOREXIA APPETITE, INCREASED ARRHYTHMIA	Selected RASH,PAPU	ULAR May 04, 2011@19:20
Current		Verify OK Cancel

Figure 2-16: Sample Verify Adverse Reaction dialog

Clicking on the VA Class code button near the causative agent will bring up details on the VA Class codes and ingredients associated with the reaction.



Figure 2-17: Sample Drug Class and Ingredient Details information message

Clicking on the "Current" button will bring up a list of the patient's currently documented active reactions.

😌 Current Allergies for Demo 💷 🗖 🔀
BEE STINGS [Severity: UNKNOWN] 🔥 Signs/symptoms: HIVES
AMOXICILLIN [Severity: UNKNOWN] Signs/symptoms: RASH,PAPULAR
ASPIRIN [Severity: UNKNOWN] Signs/symptoms: ANAPHYLAXIS ALOPECIA ANOREXIA
Font 9 😜 Print Close

Figure 2-18: Sample Current Allergies pop-up

If all information is present to allow order checks to function, you can click the "Verify" button and enter your electronic signature to change the status to "Verified". **IMPORTANT**: Sites might have additional clinical verification requirements beyond this technical verification process. See the GMRA User Manual for details on documenting this type of information in RPMS Adverse Reaction Tracking.

### 2.3.1 Signing Adverse Reaction Record

The new record requires a signature:

Select the integrated signature tool \_\_\_\_\_ button to access the Review/Sign Change dialog.

Review/Sign Changes for Demo,Dorothy Rose
Signature will be applied to checked items
Adverse Reaction
Adverse Reaction to PEACHES
Orders - Other Unsigned
ASPIRIN (NB) TAB,EC 325MG TAKE ONE (1) TABLET BY MOUTH EV
ACYCLOVIR INJ ONE-HALF (1/2) 500MG/VIAL IM BEFORE LUNCH *1
I
Electronic Signature Code:
(DECOMPANY)
Sign Cancel

Figure 2-19: Sample Review/Sign Changes dialog

The application will display the letter A (for allergies) on the Patient Postings button.

Postings

Figure 2-20: Patient Posting button with letter A

- If the signer has permission to verify key, then signing the adverse reaction will automatically verify.
- If the signer does not hold the verify key, the adverse reaction will be displayed throughout EHR as unverified.

The new adverse reaction must be signed to be available for display throughout the application.

### 2.3.2 Other Features of Adverse Reactions

The following briefly describes other features of Adverse Reactions.

- The providers can delete their own unsigned adverse reactions that have been entered in error.
- Existing reactions can be marked as "Entered in Error" an option on the right-click menu. Use this for signed and/or verified entries where the entry was truly an error and entered on the wrong patient.
- Use the Inactivate Adverse Reaction to inactive an existing reaction.
- Use the Reactive Adverse Reaction to reactivate a selected adverse reaction.

- Use the Inability to Assess to mark the patient as being "not accessible" for adverse reactions. You will select a reason for this condition.
- The document review of existing reactions or no active reactions option allows for the document of a review of reported adverse reactions or "no active allergies" has be completed. This is to assist providers in meeting Meaningful Use criteria as well as to assist in documentation needed for many accrediting organizations.

# 2.4 CIA Logging (Fix)

CIANB ACTIVITY LOGGING now honors division level parameter.

### 2.5 CCD/C32 Viewer (New Feature)

The C32/Continuity of Care Documents (CCD) Clinical Summary (BJMD) software (Namespace: BJMD) is a component of the Indian Health Service (IHS) Resource and Patient Management System (RPMS). It provides facilities for generating industry standard CCD in Healthcare Information Technology Standards Panel (HITSP) C32 format (version 2.1).

CCD/C32 documents are transmitted to IHS C32 repositories or to authorized third parties using Web Services (WS). C32/CCD Clinical Summary documents will be referred to as "C32 documents" and the C32/CCD Clinical Summary software will be referred to as the "C32 software" in this document.

### C32

#### Figure 2-21: C32 button

The CCD/C32 software includes the following functionality:

- The ability to see transmitted patient health summaries from an external source through a viewer component in EHR.
- The ability to create a C32 extract from EHR based on patient and encounter context selected in EHR header bar.

Once all dependencies and updates to various Ensemble and system are completed (review BJMD CCD/C32 manuals) configuration of the CCD/C32 can be completed through the EHR GUI.

As with other functionality, use Design Mode and right click on Properties. The user can name the button through the Caption field and change the color through the Color field.

Properties for C32 Viewer Launch Button				
Property	Value			
ТОР	2			
LEFT	1164			
HEIGHT	39			
WIDTH	110			
ALIGN	Right			
ANCHORS	Left; Right; Bottom			
SiteUrl	http://161.223.91.248:57772/csp/C32WOCRT			
CAPTION	C32			
BACKGROUNDCOLOR				
ОК	Cancel Apply			

Figure 2-22: Sample Properties for C32 Viewer Launch Button

Use the C32 Viewer Launch button to access the Continuity of Care Document about the current patient. This button is restricted to users holding the following keys: CCDPRINT, CCDSAVE, CCDVIEWER.

Note: The patient cannot be a "Demo" patient.

Show HTHL C Show H	M. Request Status: Complete		
	Continuity of Care Document	- CCD for KENT DEMO at DEMO IHS CLINIC	
		Created On: May 20, 2011	
rtient:		MRN: 8995_P211.: 50333	
rthdate:	 December 28, 1959	Sex: Male	
ardian:		Next of Kin:	
Conditions or Pro     Alergies and Adv     Encountering     Viola Same			
<ul> <li>Alicipits and Adv</li> </ul>	n Criteria		
Alexants and Arbs     Encounters     Vitals Sums     Innovations     Innovations     Innovations     Innovation     Innovation     Medications     Results     Report Generation  multions or Prob	n Criteria	Status 3	CD-9
Alexants and Adm Encounters Visals Sami Insurance Parcers Proceedings Medicateous Recort Constation militions or Prob militions or Prob	n.Cotona Nome		<b>CD-9</b> 771.8
Alexains and Adv     Encounters     Encounters     Introminations     Intromications     Intromic Process     Proceedures     Medicateous     Results     Results     Results     Results	n Orbena Nems Name	Active	

Figure 2-23: Sample Continuity of Care Document

The Continuity of Care Document is an electronic document exchange standard for sharing patient summary information. Summaries include the most commonly needed pertinent information about current and past health status in a form that can be shared by all computer applications.

The Table of Contents provides links to the information within the document. For example, click the "Conditions or Problems" link to access information about the patient's conditions or problems. In the example, the information is listed in a table.

### 2.5.1 Output Options

The report output is controlled by the radio buttons on the upper, left side of the report.

● Show HTML ● Show XML

Figure 2-24: Controls for the report output

The default is "Show HTML" but it can be changed by clicking the other radio button.

HTML will show human readable information.

XML will show machine readable information.

### 2.5.2 Save

Use the Save button to save the report. The application displays the Save C32 file dialog.

ve C32 File					?
Save jn:	My Docume	ents	•	OPP	••
	My Pictures				
	Visual Studio	2008			
My Recent ) ocuments					
Desktop					
Desklop					
Documents					
y Computer					
-					
	1				10. T. T. 10.
ly Network	File name:				<u>S</u> ave
Places	Save as type:	PDF File			Cancel
27	20	PDF File			
		Web Page Xml File			

Figure 2-25: Save C32 file dialog

Save in: populate with the location where the file should be saved.

File name: populate with the name of the file.

Save as type: select the format for the saved file.

- PDF (this is the default) the saved document will have the following extension: XXX.PDF
- Web Page the saved document will have the following extension: XXX.HTML
- XML File the saved document will have the following extension: XXX.XML.

After the dialog is complete, click Save (otherwise, click Cancel).

If the PDF format is used, the application will display the PDF Save Dialog.

🛃 PDF Save Dia	log	
Password:	•••	
Encryption: RC4	<ul> <li>40 bit - Acrobat</li> </ul>	2.0+
🗌 Can Assemble	🔲 Can Change	🗌 Can Copy
🔲 Can Edit	Can Extract	Can Fill Forms
🔲 Can Print	🔲 Can Print Hi	
Cancel		ОК

Figure 2-26: Sample PDF Save Dialog

The PDF Save Dialog allows the following:

- Password protect the PDF file
- Encrypt the PDF file
- Allow edits to the file

Password: use this field to password protect the PDF file.

**Encryption**: use this field to select the encryption format.

Check boxes: check any check box to specify how the PDF file can be changed/used.

When the dialog is complete, click OK (otherwise, click Cancel).

### 2.5.3 Print

Use the Print button to output the contents of the report. The application displays the Print dialog.

Select Printer		
Add Printer HP Color LaserJet 4700 PCL 6 (from NPAL' Lexmark Optra E on trnsvr01 (from NPALT	승규는 사람은 감독을 감독하는 것이라.	
Status: Ready Location: Comment:	Frint to file	Preferences Find Printer
Page Range  All  C Selection  C Current Page  Pages:  1 Enter either a single page number or a single page range. For example, 5-12	Number of gopies	_

Figure 2-27: Sample Print dialog

Select Printer group box: highlight the print to output the contents of the report.

Page Range group box: the controls are the same as those in Windows.

Number of copies: specify the number of copies of the report.

Use the other features, as it suits the situation (like Print to file).

After the dialog is complete, click Print (otherwise, click Cancel).

After clicking Print, the report will output to the specified printer.

# 2.6 Chart Review Component (New Feature)

The Chart Review function allows the user to document that the problem list, adverse reaction list, or medication list was reviewed OR to verify that there are no active problems, no active medications, or no active allergies at the time of the visit.

Documentation requires a visit is selected as this review is a visit-related event.

Users can document from the new EHR component ("Chart Review") that might be placed on the toolbar or other location.



Figure 2-28: Sample toolbar in application

The label on the "button" area below the component (for example Nds Rvwd below Problem List) can be configured. This also applies to the hover help that displays when you run your mouse over the button area.

These features are on the Properties for Chart Review (done in Design Mode in the EHR GUI).

Properties for Chart Review			
Property	Value		
ТОР	0		
LEFT	576		
HEIGHT	52		
WIDTH	243		
ALIGN	Left		
ANCHORS	Top; Loft; Bottom		
REVIEWEDCAPTION	Review		
REVIEWEDHINT	You can put in local guidance for hover help		
	Cancel Apply		

Figure 2-29: Sample Properties for Chart Review

The property REVIEWEDCAPTION determines the label on the "button" area.

The property REVIEWEDHINT determines the hover help wording.

Below show the label and hover help in the application.

Medications	
Nds Rivwd	F
	s Reviewed

Figure 2-30: Sample label and hover help for Medications

### 2.6.1 Chart Review Business Rules

The Chart Review business rules consist of:

- The Chart Review component is "per user per visit so the buttons are reset for each user on a given visit.
- Documentation of "no active medications" and "no active Problems" is used in Meaningful Use reporting.
- Documentation of "reviewed" is currently at the discretion of the site; however, the following is a suggested use of the "Reviewed" and "No Active Allergies" functionality:
  - Documentation of "reviewed" on the adverse reaction component can be used for staff to document that they reviewed the allergies/adverse reactions – a common requirement of accrediting bodies.
  - Enter of No Known Allergies into the adverse reaction component should still be used. Once "No Known Allergies" is documented in the component, subsequent verifications can be documented by selecting "no active allergies" using the Chart Review button or right-click menu option.

Users can document from the right-click menu of the Problem List, Medication List, or Adverse Reaction components.

### 2.6.2 Documenting Process

The process of documenting Chart Review is the same for Problem List, Adverse Reactions, and Medications.

#### Set up for using the Chart Review

In the EHR, select a patient and visit.

#### Action to Take

Left-click on "NDS RVWD" button on the Problem List, Adverse Reaction, or Medication to document.

In this example, we will use the Medications (the others will perform in the same manner).

#### **Using No Active Medications**

This option is active only if there are no records in the Medication List component.

Reviewed	
No Active Medications	

Figure 2-31: No Active Medications option

Highlight the "No Active Medications" option and the Chart Review for Medications will display [RN]



Figure 2-32: Medications showing [RN] label

#### Using the Reviewed option

This option is only active if there are records in the Medication List component.

Reviewed	
No Active Medications	

Figure 2-33: Sample menu options for Medications

Highlight the "Reviewed" option and the Chart Review for Medications will display [R].

Medications [R]

Figure 2-34: Medications showing [R] label

**Note**: Later if a problem, for example, is added, the button below Problems will have [U] in it. When you change patients, the application will automatically store "updated" and "reviewed" without requiring a signature.

#### **Completing the Chart Review process**

After leaving the patient (or by clicking the Integrated Signature Tool button), the application displays the Review/Sign Changes dialog that requires an electronic signature.

Review/Sign Changes for Acorn,Jo	e Daniel
Signature will be applied to checked iten	ns
Chart Review	
<ul> <li>No Active Medications</li> <li>Medications - Reviewed</li> <li>No Active Adverse Reactions</li> <li>Adverse Reactions - Reviewed</li> </ul>	
Electronic Signature Code:	Don't Sign Cancel

Figure 2-35: Sample Review/Sign Changes

Each item that requires a signature will have a check in the checkbox in front of it. Uncheck any items not to be signed by clicking the checkbox to the left of the item (used when you did not perform the action). Optionally, click on a group heading to alternately check and uncheck all of its member items.

Enter a valid electronic signature code and click Sign (otherwise, click Cancel). After clicking Sign, the checked items will now be signed.

The status changes after the signature. For example, [R] changes to R.

logy Prep EHR Help New Tab1	
Apr-2011 07:22 * Problem List Advs React Medications Ambulatory	B Postings F
Asthma Action Plan Orders Prob/POV Services Wellness Notes Consu	ilts Reports
ist No Active Problem List Found	Vitals Vital
	BMI

Figure 2-36: Sample of status change after signature

### 2.6.3 Adverse Reactions - Right-Click Option

New review options are available when the user right-clicks in the Adverse Reaction window (Allergy component).

Right-click in the Adverse Reaction window to display the list of options.

	Adverse React	ions		
Agent	Edit Adverse Reaction	tion	 Status	Π
WINE	Delete Adverse Reaction	ING	Nonv	
	New Adverse Reaction			Γ
	Sign Adverse Reaction			
	Entered in Error			
	Inactivate Adverse Reaction			
	Reactivate Adverse Reaction			
_	Inability to Assess			
-Status C All	Chart Review	•		

Figure 2-37: Options on right-click menu for Adverse Reactions

Below is an overview of the options on the right-click menu:

- Entered in Error: The provider of the record can mark the record as "Entered in Error" and to have the record removed from the Adverse Reactions window.
- **Inactivate Adverse Reaction**: The user can apply the "Inactivate Adverse Reaction" option to an existing record.
- **Reactivate Adverse Reaction**: The user can apply the "Reactivate Adverse Reaction" option to an existing record.
- **Inability to Assess**: The user can select the "Inability to Assess" option and use any of the six options:
  - Unconscious
  - Language Barrier
  - Altered Mental Status
  - Caregiver does not know
  - Patient does not know
  - Other

\*\*\* Allergy dialog in order is now disabled \*\*\*

Please refer to the GMRA User Manual for further details and information.

The Chart Review component is "per user per visit," so the buttons are "reset" for each user on a given visit.

• For example: Nurse documents that she reviewed problem list. The provider then determines that the existing problem on the list is resolved and inactivates the problem. She can then document "no active problems." Both occurrences store with date/time stamp and the user who entered the data.

Documentation of "reviewed" is currently at the discretion of the site.

Documentation of "reviewed" on the adverse reaction window can be used for staff to document that they reviewed the allergies/adverse reactions – a common requirement of accrediting bodies.

Entry of No Known Allergies into the adverse reaction window should still be used. Once "No Known Allergies" is documented in the Adverse Reaction window, subsequent verifications can be documented by selecting "no active allergies" using the Chart Review button or right-click menu.

# 2.7 Info Button Displays

With the addition of Patch 8 the user can launch patient education material from the Web when in a visit to highlight assigned medication, lab, Visit Diagnosis, Problem, or Historical Diagnosis. This also brings up a patient education dialog for quick documentation.

Highlight a diagnosis and click the info button will bring up specific Medline Plus information.

Patient education window will be offered to document education if desired.

The patient education window will only appear if the education component has been viewed already during an EHR session. For users who want this feature activated, default their initial EHR GUI template to a tab with Patient Education.

### 2.7.1 Info Button – Problem List

Highlight a problem on the Problem List.



Figure 2-38: Problem List component

Click the info button to access the Medline Plus Connect Web page. In addition, the Add Patient Education Event displays, allowing you to add a patient education event for the particular problem.

The patient education window will only appear if the education component has been viewed already during an EHR session. For users who want this feature activated, default their initial EHR GUI template to a tab with Patient Education.

### 2.7.2 Info Button – Visit Diagnosis

Highlight a record on the Visit Diagnosis.

Provider Narrative	ICD	ICD Name	Priority /	Cause	Injury Date	Injury Cause
hypertension	401.1	BENIGN HYPERTENSION	Primary			
TYPE 2 DIABETES MELLITUS	250.00	DIABETES II/UNSPEC NOT UNCONTR	Secondary			

Figure 2-39: Sample Visit Diagnosis component

Click the info button. to access the Medline Plus Connect Web page. In addition, the Add Patient Education Event displays, allowing you to add a patient education event for the visit diagnosis.

The patient education window will only appear if the education component has been viewed already during an EHR session. For users who want this feature activated, default their initial EHR GUI template to a tab with Patient Education.

### 2.7.3 Info Button – Historical Diagnosis

Highlight a record on the Historical Diagnosis component.

🛟 Hist	orical Diagnosis	i	Ad	d to PL	v
Visit Date	POV Narrative	ICD	ICD Name	Facility	
03/23/2007	PROPHYLACT IMMUNOTHERAPY	V07.2	Prophylact Immunotherapy	Demo Hospital	
05/22/2006	HYPERTENSION	401.9	Hypertension Nos	Demo Hospital	
05/22/2006	TYPE 2 DIABETES MELLITUS	250.00	Diabetes li/unspec Not Uncontr	Demo Hospital	
12/16/2004	hypertension	401.1	Benign Hypertension	Demo Hospital	
09/25/2000	TYPE 2 DIABETES MELLITUS	250.00	Diabetes li/unspec Not Uncontr	Demo Hospital	
09/25/2000	HYPERTENSION	401.9	Hypertension Nos	Demo Hospital	
06/20/2000	Laboratory Procedures	V72.6	Laboratory Examination	Demo Hospital	
04/17/2000	TYPE 2 DIABETES MELLITUS	250.00	Diabetes li/unspec Not Uncontr	Demo Hospital	
04 11 7 10000	IN OPPOTENCION	101.0	11 · · · 11	n 11 51	

Figure 2-40: Sample Historical Diagnosis component

Click the info button to access the Medline Plus Connect Web page. In addition, the Add Patient Education Event displays, allowing you to add a patient education event for the historical diagnosis.

The patient education window will only appear if the education component has been viewed already during an EHR session. For users who want this feature activated, default their initial EHR GUI template to a tab with Patient Education.

### 2.7.4 Info Button - Lab Component

Highlight a lab record.

Laboratory	Results - Most I	Recent			
Oldest K	Previous	Next	Newest	<b>i</b>	
Test					Result
Test WBC RBC					12.5TST
RBC					4.30

Figure 2-41: Info button on Laboratory Results

Click the **1** info button to access the Lab Tests Online Web page.

Peer-reviewed Non-con	Inmercial Patient-centered
HOME BR	ON 🛌 CZ 💻 DE 🛄 ES 🚺 FR 🔚 GR 🚞 HU
SEAR	ICH Search Tests Conditions/Dis
Understanding Your Tests	Search Results
Inside the Lab	
In the News	SEARCH RESULTS 1 - 10 of 66 total results for "wbc"
Article Index	Sort By Date   Hide Summaries
About the Site Send Us Your Comments	WBC Differential Count: The Test

Figure 2-42: Sample Lab Tests Online information

Patient education window will be offered to document education if desired.

🖑 Add Patient Educ	ation Event	×
Education Topic	401.9-Literature	
	(Hypertension Nos)	Add
Type of Training	Individual C Group	Cancel
$Comprehension \ Le\underline{v}el$	GOOD	
Length	(min)	Historical
Comment		
Provided By	TETER, SHIRLEY	
Readiness to Learn	×	Patient's Learning Health Factors
- Status/Outcome -		
C Goal Set	C Goal Met C Goal Not Met	
<u> </u>		

Figure 2-43: Sample Add Patient Education Event window

The patient education window will only appear if the education component has been viewed already during an EHR session. For users who want this feature activated, default their initial EHR GUI template to a tab with Patient Education.

### 2.8 Medication Management (Enhancement)

Transferring medications from inpatient to outpatient, outpatient to inpatient, outside to inpatient or outpatient now work properly.

Copy & renew now honor multiple drug formula eligibility.

Pane size for the medication management component can now be customized using the BEHORX SPLITTER SIZE parameter. This is located in both the XPAR – General Parameters menu and the RPMS-EHR Configuration Master Menu (by selecting MED -> SPL (Med Tab Splitter size menu)).

# 2.9 Notifications (Enhancement)

The user will have the ability to turn on/off the "Hint" information that is displayed on the Notification component.

Sites may now set a parameter to default the "Hint" hover help on the Notifications component using the BEHOXQ SHOW HINT parameter. This is located in both the XPAR – General Parameters menu and the RPMS-EHR Configuration Master Menu (by selecting NOT -> PAR -> HNT (Set Show Hint menu option)).

The user can turn the Show Hint off or on during an EHR session using the right-click menu on the Notifications component.

NOTIFICA	TIONS COVER SHEET	$\langle \nabla  $					
Notifical	ions for All Patients						
1	Patient						
	Process All Process Selected Process Info Forward		A Pati	ent			1
	Schedule		Patient: I		(10156		í
	✓ Show Hint	∣→	Subject: Adv Sender: BET/	erse reaction sign Δ BΔB		uired for PEANUTS	
	Refresh F5			5-Apr-2011 10:03 ium able	l		

Figure 2-44: Show Hint option on right-click menu

# 2.10 Orders (Fix)

**Note**: Allergy dialog in order is now disabled.

If you have not done so, you MUST perform the conversion to allergy entry throughout the Adverse Reaction Cover Sheet component that was delivered in EHRv1.1p1 immediately.

# 2.11 Patient Detail Report (Enhancement)

The system now displays the following:

- The date of death, cause of death, preferred language, and patient receipt of electronic data in the patient detail report.
- The system displays social security number in XXX-XX-1234 format.

# 2.12 Personal History (Fix)

The application now properly deletes entries with Problem ID of 9000 or greater (the entries from "Personal History File").

# 2.13 Problem List Cover Sheet (Enhancement)

The ability to review the problem list and mark the list as reviewed or no active medications has been added to the right click menu.

This features requires the Chart Review component present on the EHR GUI.

# 2.14 Problem List (Fix)

The ability to store an uncoded problem (with the diagnosis of .9999) has been restored for sites with Code Set Versioning.

Searches for active ICD 9 codes that were previously inactive now returns properly on a search for sites with Code Set Versioning.

# 2.15 Triage Summary Component (Fix)

Now filters out entered in error vital signs.

# 2.16 Vital Measurement (Enhancement)

Local configuration of Vital Entry New Date time is completed through the parameter BEHOVM NEW DATE DEFAULT. Set this parameter in located in both the XPAR General Parameters menu or the RPMS-EHR Configuration Master Menu (by selecting -> VIT -> SND (Select New Date option)).

Vital Measurement Entry has a new measurement called "Last Known Well" that specifically used in Meaningful Use Clinical Quality Stroke Measures. The ability to document "Last Known Well" condition has been implemented.

Note: The Last Known Well measurement is used to document onset of stroke symptoms only.

Vital Measurement	nt E	intry	→ [	
Default Units	•	04-May-2011 11:03	Range	Units
Temperature				F
Pulse			60 - 100	/min
Respirations				/min
Blood Pressure			90 - 150	mmHg
Height				cm
Weight				kg
<ul> <li>Pain</li> </ul>				
Head Circumference				cm
02 Saturation				%
Peak Flow				
Last Known Well		WELL		
		New Date/Time	IK	Cancel

Figure 2-45: Sample Vital Measurement Entry form showing Last Known Well measurement

The value is always WELL. Document the date/time as follows:

- If witnessed onset, document date/time of onset of stroke symptoms.
- If date/time of onset not witnessed, document date/time the patient was without stroke symptoms.

# 2.17 Visit Diagnosis (Fix)

Searches for active ICD 9 codes that were previously inactive now returns properly on a search for sites with Code Set Versioning.

### 2.18 Windows 7 Compatibility (Fix)

Help now opens properly on Windows 7 system.

# 3.0 Parameters

This section presents the new parameters for this patch.

# 3.1 BEHOXQ SHOW HINT

This option sets the hover hint on the Notifications to show or not show.

This parameter can be set to NO to hide the hover hint or YES to display.

This option is located in both the XPAR General parameters menu and the RPMS-EHR Configuration Master Menu (by selecting -> NOT -> PAR -> HNT (Set Show Hint Dialog option)).

🖳 Ca	iche	TRM:5856 (I	ENSEME	BLE)		×
File I	Edit	Help				
DEMO	HOS	SPITAL			RPMS-EHR Management Version 1.1	^
					Set Show Hint Dialog	
\$ Show	not	ification	hint	dialog	may be set for the following:	
	100	) User		USR	[choose from NEW PERSON]	
		) Division		DIV	[choose from INSTITUTION]	
	800	) System		SYS	[DEMO-HO.BEM.IHS.GOV]	
Sele	ct 1		NAME	RI(	W PERSON CHARDS,SUSAN SR ion hint dialog for User: RICHARDS,SUSAN	
						-

Figure 3-1: Set Show Hint Dialog window

# 3.2 BEHORX DOSAGE FORM

This option sets the dosage form used in the outside meds for Unknown medication documentation to set the action to "validate." We recommend setting this to MISCELLANEOUS now.

This option is located in both the XPAR General parameters menu and the RPMS-EHR Configuration Master Menu (by selecting -> MED -> OMD (Outside Med Dosage Form)).



Figure 3-2: Outside Med Dosage Form window

# 3.3 BEHORX SPLITTER SIZE

This parameter sets the proportions of the panes on the medication management component.

The input format is 20,25,60,75 that represents:

<inpatient top>;<inpatient bottom>;<outpatient top>;<outpatient bottom>

The numbers represent the size percentage of the two splitters.

The default values are:

Inpatient: 20,25 Outpatient 60,75

Non-Hospital sites:

Set for system:

25;50;75;99 (the '99' effectively hides the inpatient pane)

The percentages speaks to where the pane starts – so in the Non-hospital site example above is 25;50;75;99

**Inpatients**: the outside meds pane starts 25% down from top and inpatient meds in the middle. At a site with no hospital you will never see this.

**Outpatients**: the outside meds pane starts 75% down from top and the inpatient is not visible but you can see the splitter control to move into view. (good for a site that is NOT a hospital and would NEVER look at inpatient).

The option is located in both the XPAR General parameters menu and the RPMS-EHR Configuration Master Menu (by selecting -> MED -> SPL (Med Tab Splitter Size)).



Figure 3-3: Med Tab Splitter Size window

### **Splitter Pane example:**

Help Glear Options								
cy Patient Chart Communication Internet Links Clinical Pharmacology			-					
NNicoled 100332 19Jun-1956 (54) F RICHARDS.SUSAN		dications ds Rvwd	Postngs A	Pluam Ed	POC Lab Entry	M		51
er Care Summay Cancer Follow Up Asthma Summary Asthma Action								
ACY Notifications Cover Sheet Triage Well Child Labs Medic	ations Diders Prob/POV Services Weiness	Notes Consults	Reports	Suicide F	leporting / /	lew Tab1		
New Action				-				
Bony Christony 100 mm Pret "0"	(i) Inpatient Medications •							
During st	ications .	Status	inued	Lott Filed	Detto	Retilit	Bell	Puvider
cton (*	Dutside Mesdoutieren		*				Slate-	Stat D
tion .	Dubade Meskowew		*)				Statur	
dan	Datale Medicalizer						Statu:	
clim (*	Duhide Medicalizes		*				Stake	
Think of this as								Start
and the second se	Durisde Medications		*				Status Status	

Figure 3-4: Splitter Pane example on Medications Management component

In the following examples:

-- Setting BEHORX SPLITTER SIZE for System: DEMO-HO.BEM.IHS.GOV --

Value: 25;50;75;99//

- The first 2 numbers represents the display when you view a patient who is an INPATIENT
- The last 2 numbers represents a patient who is not admitted, so is outpatient



ctive Only Chronic Only 18 ction Chronic	days Print	New Check	i Inpatient Medicatio	Statul	lunard La	Il Filed Expan	s Refili Re	I Provider
							remening	
10					-			
Action			Outside Medications				StMur	Stat D
Ation			Keyland Mar Garden					1.000
Action			Inpatient Medications		¥.		Status	Stop D
Action		(x	Inpatient Medications				Status	Stop D
Action			Inputient Medications		<u>v</u>		Status	Stop D
Action			Ingulari Medications		¥2		Statue	Stop I

Figure 3-5: Patient is Inpatient Status in the EHR GUI

#### Below: Patient is OUTPATIENT Status (not Inpatient status)

e View Action			Medi	ications									
🖹 🗸 🗐 🥔 🖸 🕂 de Charles Constrained C													
Action Chronic		Out	atient Medications	s			Status	Issued	Last Filled	Expires	Refills Remaining	Rx#	Provider
ACETAMINOPHEN 325MG TAB QIV: 12 Sig: TAKE ONE TABLET BY MOUTH EVERY 4 TO 6 HOURS IF NEEDED FOR PAIN OR FEVER							Pending						
âctino					Arctications						1		Start Da
Action					fedications			•••••••			Ş	Status	Start Da
Action								······································			Ş	Status	Start Da
Action											Ş	Status	Start Dat
Action								• • • • • • • • • • • • • • • • • • •			c	Status	Start Dat

Figure 3-6: Sample Patient is Outpatient status (not Inpatient status) in EHR GUI

# 3.4 BEHOVM NEW DATE DEFAULT

This option sets the default radio button for Select New Date/Time on the Vital Entry component. You can default this to "Now" or "Current Visit" setting.

This option is located in both the XPAR General Parameters menu and the RPMS-EHR Configuration Master Menu (by selecting -> VIT -> SND (Select New Date Default option)).

😐 c	ache	TRM:5856 (ENS	EMBLE)		×
File	Edit	Help			
DEMO	) HO	SPITAL		RPMS-EHR Management Version 1.	1 🔨
			92	elect new date default	
Sele	ect	new date defa	ault may b	e set for the following:	
	10	0 User	USR	[choose from NEW PERSON]	
	40	O Class	CLS	[choose from USR CLASS]	
	50	O Service	SRV	[choose from SERVICE/SECTION]	
	60	O Location	LOC	[choose from HOSPITAL LOCATION]	
	70	O Division	DIV	[choose from INSTITUTION]	
	80	O System	SYS	[DEMO-HO.BEM.IHS.GOV]	
		election: 100 NEW PERSON N <i>B</i>		NEW PERSON CCHARDS, SUSAN SR	
 Defa		Setting Se radio group		date default for User: RICHARDS,SUSAN	
0-Ci	ırre	nt Visit;2-No	)w.		
Defa	ault	radio group	button:	l	

Figure 3-7: Select new date default window

# 3.5 CIANB ACTIVITY LOGGING

No change from EHRv1.1p6 except that the parameter honors Division setting.

# **Contact Information**

If you have any questions or comments regarding this distribution, please contact the OIT Help Desk (IHS).

- Phone: (505) 248-4371 or (888) 830-7280 (toll free)
- **Fax:** (505) 248-4363
- Web: http://www.ihs.gov/GeneralWeb/HelpCenter/Helpdesk/index.cfm
- Email: <u>support@ihs.gov</u>