



### RESOURCE AND PATIENT MANAGEMENT SYSTEM

# **Electronic Health Record**

(EHR)

## **Addendum to User Manual**

Version 1.1 Patch 28 July 2020

Office of Information Technology Division of Information Technology

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## Preface

In 2015, the Office of the National Coordinator (ONC) for Health Information Technologies published the 2015 Edition set of rules related to the adoption of standards, implementation, and certification criteria for Electronic Health Record (EHR) technology.

The Indian Health Service (IHS) must meet these ONC 2015 certification requirements, which include new regulations around electronic prescribing (eRx) functions. The enhancements are scheduled to be released over several patches. The EHR patch 28 along with the IHS Pharmacy Modifications (namespace APSP) patch 1025 will include changes related to dosing and quantities as well as improvements to the Clinical Information Reconciliation (CIR) Tool.

For more information about the ONC 2015 Edition certification requirements relating to electronic prescribing, see the Electronic Prescribing page at ONC's HealthIT website here: <u>https://www.healthit.gov/test-method/electronic-prescribing</u>.

For more information about the ONC 2015 Edition certification requirements relating to Clinical Information Reconciliation, see the Clinical Information Reconciliation page at ONC's HealthIT website here: <u>https://www.healthit.gov/test-method/clinical-information-reconciliation-and-incorporation</u>.

## 1.0 Introduction

The purpose of this document is to provide information on the changes to the EHR and medication ordering processes and to provide information on the CIR Tool.

Changes for medication ordering consist of standardization of decimal numbers with regard to leading and trailing zeros, and also to allowable dosing units for oral liquid medications. The changes will affect Outpatient, Inpatient, and Non-VA (also known as Outside) medication orders. For the purposes of this manual, it is assumed that all numbers used in the ordering process will be positive numbers.

The CIR Tool has been reworked to more closely align with the site workflows and needs for the Certified EHR rules and the various reporting requirements for quality payment programs.

This manual is intended for providers, pharmacists, and clinical informaticists or clinical application coordinators. As such, not all sections will be applicable to all audiences.

This patch is EHR\*1.1\*28 and has APSP\*7.0\*1023 as a prerequisite as described in the release notes and install guide.

## 2.0 Leading and Trailing Zeros

For many years, users have been encouraged to format decimal numbers to include a leading zero for numbers less than 1 (e.g., "0.5" not ".5") and avoid trailing zeros (e.g., "3" not "3.0") when these numbers are used for dosing or quantity. Even with the use of electronic mediums, it can be difficult to see the decimal point without this standardization, which can lead to errors.

These standards are now required in the ONC 2015 Edition certification requirements, and by Surescripts for prescriptions transmitted over their network. The IHS Resource and Patient Management System (RPMS) EHR will now enforce this standard in medication orders for outpatient, inpatient, and non-VA (outside) order dialogs. The following sections discuss each ordering method and fields affected by this change.

### 2.1 Outpatient Medications

Outpatient medication ordering can be done as normal; however, the **Dosage** and quantity (**Qty**) fields will not allow numbers less than 1 without a leading zero, nor allow trailing zeros after a decimal. In the case of doses, the order will not be able to be saved, and an error message will display. For quantities, the system will automatically correct the format.

#### 2.1.1 Dosage

The **Dosage** field will accept a value chosen from a list and will also accept text typed in by the provider or proxy entering the order. In either case, the user must include a leading zero for numbers less than 1 and no trailing zeros.

If there are doses that do not comply when the user clicks **Accept Order**, an error message similar to the ones shown in Figure 2-1 and Figure 2-2 will display. The behavior is the same for doses on the **Complex** tab.

Medication Order		
AMOXICLLIN 125MG/5ML PWDR,RENST-ORAL		
	Pt	Wt on 01/06/2010
Dosage Complex		
Dosage	Route	Schedule
.5 ml	ORAL	Q8H
1 TEASPOONFUL 125MG/5ML	ORAL	Q2H
2 3, Unable to Save Order		×
2 This order cannot be saved for the follow	ving reason(s):	
A fractional number (.5) must have a nu	mber to the left of the	decimal.
21		
ОК		
Pa		
Instructions:		



Medication Order					
AMOXICLLIN 125MG/5ML PWDR,RENST-ORAL					
	Pt Wt o	on 01/06/2			
Dosage Complex					
Dosage Rout	te	Schedule			
1.0 ml 084	AL .	Q8H			
1 TEASPOONFUL 125MG/5ML       OF         2 TEASPOONFUL S 125MG/5MI       3/         3/       Unable to Save Order         1/       1/         2.5       This order cannot be saved for the following rest         5M       A fractional number (1.0) may not have a trailin         OK       OK	AL X ason(s): ng zero.	Q2H Q2W Q5MIN Q6H Q6H QAM QID QPM TID			

Figure 2-2: Unable to Save Order message for trailing zero in Dosage field for an outpatient medication

#### 2.1.2 Quantity

Like the **Dosage** field, the quantity (**Qty**) field must not contain a trailing zero or be missing a leading zero for numbers less than 1. If the quantity entered does not meet these requirements, the numbers will be updated to meet the guidelines when the user moves to another field. This is not possible for the **Dosage** field, since that field may contain text as well as numbers.

Patient Instructions: AS DIRECTED FOR BLOOD THINNER
Days Supply       Qty (TAB)       Refills       Clinical Indication       Chronic Med         1       Image: Signal Stress S
Clinic O Mail  Window O Outside Pharmacy - eRx O Outside Pharmacy - Print

Figure 2-3: Medication Order dialog with typed-in Qty number with no leading zero

Patient Instructions: AS DIRECTED FOR BLOOD THINNER
Days Supply       Qty (TAB)       Refills       Clinical Indication       Chronic Med         1
Clinic O Mail  Window O Outside Pharmacy - eRx O Outside Pharmacy - Print

Figure 2-4: Medication Order dialog with corrected Qty value

## 2.2 Unit Dose Medications

Unit dose medications, whether ordered for patients who are admitted to an inpatient unit or for clinic administration for an outpatient, will only have a **Dosage** field that will be validated for leading and trailing zeros.

#### 2.2.1 Dosage

The **Dosage** field will accept a value chosen from a list and will also accept text typed in by the provider or proxy entering the order. In either case, the user must include a leading zero for numbers less than 1, and no trailing zeros. If there are doses that do not comply when the user clicks **Accept Order**, an error message similar to the ones shown in Figure 2-5 and Figure 2-6 will display.

Medication Or	der				
AMOXICILLIN CAP,0	ORAL				
		Pt Wt	on 01/06/2016 :		
Dosage Complex	*				
Dosage		Route	Schedule (Day-		
.5		ORAL	TID		
250MG 500MG	0.0156 0.0312	ORAL	Q2H Q2W Q4H Q5MIN		
Unable to Save	Order		X		
This A fra	order cannot be saved for the followin	ig reason(s): per to the left of the dev	cimal.		
ОК					
Give Additional Dose Now					

Figure 2-5: Unable to Save Order message for no leading zero in Dosage field for a unit dose medication

Medication Order						
AMOXICILLI	N CAP,ORAL					
			Pt Wt on 01/06/2018			
Dosage	Complex					
Dosage		Route	Schedule (Day			
1.0		ORAL	TID			
250MG	0.0156	ORAL	Q2H			
500MG	0.0312		Q4H			
Unable to	o Save Order	×	Q5MIN Q6H			
	This order cannot be saved for the followin	g reason(s):	Q8H QAM			
	A fractional number (1.0) may not have a tr	ailing zero.	QPM TID			
	ОК					
Give Additional Dose Now						

Figure 2-6: Unable to Save Order message for trailing zero in Dosage field for a unit dose medication

#### 2.3 Intravenous Medications

Intravenous (IV) medication orders may be either continuous or intermittent, and may consist of a solution only, or a solution with one or more additives. There are several fields that undergo validation in these orders, with some validation being existing functionality and not new to this patch.

One numerical field that is *not* validated in the EHR at this time is the volume of the solution, because these are set in the drug file and are not editable inside the EHR **Order** dialog.

#### 2.3.1 Volume/Strength

The **Volume/Strength** field is validated for additives only. Numbers that do not conform to the leading and trailing zeros standards will not save. If such numbers are in the **Volume/Strength** field of the additive or additives when the user clicks **Accept Order**, the user will see error messages similar to the ones shown in Figure 2-7 and Figure 2-8.

on Order			×
is Additives	Solution/Additive*	Volume/Str	ength*
	SODIUM CHLORIDE 0.9% INJ,SOLN	1000 ~	ML
N INJ	MULTIVITAMINS INJ,SOLN	.5	ML
CONE INJ,SOLN YCIN INJ,SOLN Unat	le to Save Order		×
AMINS INJ,SOLN M <ceftria N <ceftria< td=""><td>This order cannot be saved for the following reason(s):</td><td></td><td>~</td></ceftria<></ceftria 	This order cannot be saved for the following reason(s):		~
	A fractional number (.5) must have a number to the left of the	he decima	,
panded Med Route List)	ОК		
	tinuous oli DOM 125	1	-

Figure 2-7: Unable to Save Order message for no leading zero in Volume/Strength field for an IV medication

der			×
Additives	Solution/Additive*	Volume/SI	trength*
	SODIUM CHLORIDE 0.9% INJ,SOLN	1000 $\sim$	/ ML
^	MULTIVITAMINS INJ,SOLN	10.0	ML
NJ,SULN NJ,SULN IG/MLINJ	Unable to Save Order	×	
S INJ,SOLN CEFTRIAX CEFTRIAX	C This order cannot be saved for the following reason	n(s):	^
~	A fractional number (10.0) may not have a trailing : OK	zero.	~
d Med Route List) Type	× (		

Figure 2-8: Unable to Save Order message for trailing zero in Volume/Strength field for an IV medication

#### 2.3.2 Infusion Rate

The **Infusion Rate** field for applies to continuous type IV medications only. Numbers that do not conform to the standards for leading and trailing zeros will not be able to be saved. If such numbers exist in this field when the user clicks **Accept Order**, the user will see error messages similar to the ones in Figure 2-9 and Figure 2-10.



Figure 2-9: Unable to Save Order message for leading zero in Infusion Rate field for an IV medication



Figure 2-10: Unable to Save Order message for trailing zero in Infusion Rate field for an IV medication

#### 2.3.3 Infuse Over Time

The **Infuse Over Time** field for applies to intermittent type IV medications only. This field must be a whole number so is not validated for leading and trailing zeros. If decimal numbers are in this field when the user clicks **Accept Order**, the user will see an error message similar to the one shown in Figure 2-11.



Figure 2-11:Unable to Save Order message for leading zero in Infuse Over Time field for an IV medication

#### 2.3.4 Duration or Total Volume

The **Duration or Total Volume** field must be a whole number, so it is not validated for leading and trailing zeros. If a fractional number is in this field when the user clicks **Accept Order**, the user will see an error message similar to the one in Figure 2-12. This is existing functionality but included here for completeness.

xpanded Me	d Route List)	Type* (IV )	Гуре Help)	Schedule *	(Day-of-Week)	
INOUS	•	Intermitten	: ~	Q8H	<b>-</b>	PF
		Duration or .5	Total Volum hours	e (Optional) 💌		
<sub>.c</sub> Unable to	Save Order				×	
	This order o	annot be s	aved for the	e following	reason(s):	
20 -	Invalid Dura	ition, pleas	e enter a wi	nole numbe	er for a duration.	-
.) C			ОК			



#### 2.4 Non-VA (Outside) Medications

Non-VA medications, also known as outside medications, are technically not ordered but rather documented. However, the **Dosage** field will still have validation for the leading and trailing zero standards.

#### 2.4.1 Dosage

The **Dosage** field will accept a value chosen from a list and will also accept text typed in by the provider or proxy entering the order. In either case, the user must include a leading zero for numbers less than 1, and no trailing zeros. If there are doses that do not comply when the user clicks **Accept Order**, an error message similar to the ones shown in Figure 2-13 and Figure 2-14 will display.

Ocument Herbal/OTC/Home Medications							
	ACETAMINOPHEN 325MG TAB						
Dosage		Route S					
.5		ORAL PO					
325MG 650MG	0.004 0.008	ORAL PO ORAL					
Unable to	Save Order	×					
	This order cannot be saved for the following re A fractional number (.5) must have a number t OK	ason(s): o the left of the decimal.					
-							

Figure 2-13: Unable to Save Order message for no leading zero for Dosage field for a non-VA medication

Ocument Herbal/OTC/Home Medications						
A	CETAMINO	PHEN 325MG TAB				
	Deepee		Deute			
ſ	500.0		ORAL PO			
	325MG 650MG	0.004 0.008	ORAL PO ORAL			
	Unable to	Save Order	×			
	This order cannot be saved for the following reason(s): A fractional number (500.0) may not have a trailing zero.					
С		ОК				

Figure 2-14: Unable to Save Order message for trailing zero for Dosage field for a non-VA medication

## 3.0 Oral Liquid Dosage Units

A new regulation based in part on the Institute for Safe Medication Practices (ISMP) guidelines applies only to oral liquid medications for outpatient medication orders.

These medications must be dosed in milliliters (mL) and milliliters only. The use of terms such as teaspoons, tablespoons, cubic centimeters, etc. are no longer allowed, even when used along with mL. This means that a dose of "5 mL" is acceptable, but a dose of "1 teaspoonful (5 mL)" is not.

## 3.1 Identifying Oral Liquids

The software will identify oral liquids based on the dosage form associated with the drug in the drug file. Specific dosage forms are marked as being an oral liquid and will trigger the validation. Because of limitations in the **Dosage Form** file, there may be a few items that are not validated by the software; however, these should be rarely used items in most cases.

In general, if a medication is to be used by the patient in an oral liquid form, even if it is dispensed in another form, then the validation will apply.

### 3.2 Outpatient Medications

Oral liquid medications will be ordered as normal. Doses may be selected from a list or entered as free text. While the associated APSP patch will prevent incorrect doses from being created, there may be existing doses in the system that are not compliant with the new rule, especially when the patch is first installed.

When a dose that does not meet the new rule is present when the user clicks Accept Order, an error message similar to the one in Figure 3-1 will display. This validation will occur whether the user is on the Dosage tab or the Complex tab in the Order dialog.

Medication Order						
AMOXICLLIN 125MG/5ML PWDR,RENST-OF	RAL			Cł		
	+ Row -	- Row	on 0170672016 23.	94 ID (		
Dosage Complex						
Dosage	Route	Schedule	Duration	thei		
1 TEASPOONFUL 125MG/5ML	ORAL	TID	10 DAYS			
		^				
This order cannot be saved	for the following i	reason(s):				
Dosage units for Oral Liquid	ds must be standar	rd metric units.				
ОК						
Pati Instructions:						

Figure 3-1: Unable to Save Order message for a non-metric dosage on an oral liquid outpatient medication

### 3.3 Unit Dose, IV, and Non-VA medications

The metric dose unit validation will not apply to these medications, and doses may be in units other than milliliters. However, users are strongly encouraged to avoid cubic centimeters or household measurement units such as teaspoonfuls. Doses that express both strength and volume are acceptable here (e.g., "250 mg (5 mL)").

## 4.0 Quick Orders

Creation of quick orders (QO) will be subject to the same validation as ordering, including both the leading and trailing zeros validation for all medication order types and the milliliters in oral liquid dosing for outpatient medications. However, this will apply to new quick orders only, and existing quick orders will need to be edited manually. Currently, QO may be created either in RPMS (more common) or in the EHR Quick Order Wizard (less common).

#### 4.1 RPMS

For most sites, QO are created and edited in RPMS. The validation that is found in the EHR for ordering will also occur when creating and editing QO in RPMS.

#### 4.1.1 Outpatient Medications

Figure 4-1 shows only the relevant portions of the QO creation process. Error messages are in bold font in this output for visibility, but display in normal font within RPMS.

```
PSOZ TEST QUICK ORDER
Select OUICK ORDER NAME:
NAME: PSOZ TEST QUICK ORDER Replace
DISPLAY TEXT: This is a test quick order please do not use
          Replace
VERIFY ORDER: YES//
DESCRIPTION:
 No existing text
 Edit? NO//
ENTRY ACTION:
Medication: AMOX,125 AMOXICLLIN 125MG/5ML PWDR,RENST-ORAL
                                                                AMOXICLLIN
125MG/5ML PWDR, RENST-ORAL AMOXICLLIN 125MG/5ML PWDR, RENST-
ORAL
Complex dose? NO// YES
Choose from (or enter another):
    1 1 TEASPOONFUL 125MG/5ML
2 2 TEASPOONFULS 125MG/5ML
Dose: 1
        1 TEASPOONFUL 125MG/5ML
  ...OK? YES//
Dosage units for Oral Liquids must be standard metric units.
Dosage will not be saved/changed
Dose: .5 ML
Enter the amount of this drug that the patient is to receive as a dose,
NOT as the number of units per dose.
A fractional number .5 must have a number to the left of the decimal.
Dosage will not be saved/changed
Dose: 5.0 ML
A fractional number 5.0 may not have a trailing zero
Dosage will not be saved/changed
Dose: ^
```

Figure 4-1: Quick Order example and error messages (in bold font)

#### 4.1.2 Unit Dose Medications

Figure 4-2 shows only the relevant portions of the QO creation process. Error messages are in bold font in this output for visibility, but display in normal font within RPMS.

```
Select QUICK ORDER NAME:
                          PSJZ TEST UD QO
NAME: PSJZ TEST UD QO//
DISPLAY TEXT: Test quick order please do not use Replace
VERIFY ORDER: YES//
DESCRIPTION:
 No existing text
 Edit? NO//
ENTRY ACTION:
Medication: METRON
    1 METRONIDAZOLE GEL, TOP
    2
        METRONIDAZOLE SUSP, ORAL
CHOOSE 1-2: 2
Complex dose? NO//
Choose from (or enter another):
    1
       5ML METRONIDAZOLE 50MG/ML SUSPENSION
    2 55ML METRONIDAZOLE 50MG/ML SUSPENSION
    3 70ML METRONIDAZOLE 50MG/ML SUSPENSION
    4 35ml METRONIDAZOLE 50MG/ML SUSPENSION
    5 88ml METRONIDAZOLE 50MG/ML SUSPENSION
    6 95ml METRONIDAZOLE 50MG/ML SUSPENSION
Dose: .5
Enter the amount of this drug that the patient is to receive as a dose,
NOT as the number of units per dose.
A fractional number .5 must have a number to the left of the decimal.
Dosage will not be saved/changed
Dose: 5.0 ML
A fractional number 5.0 may not have a trailing zero
Dosage will not be saved/changed
Dose:
```

Figure 4-2: Unit Dose example with errors (in bold font)

#### 4.1.3 IV Medications

The following shows only the relevant portions of the QO creation process. Error messages are in bold font in this output for visibility, but display in normal font within RPMS.

Figure 4-3 show an example of continuous infusion.

```
Select QUICK ORDER NAME: PSIVZ TEST IV QO
NAME: PSIVZ TEST IV QO//
DISPLAY TEXT: Test quick order please do not use Replace
VERIFY ORDER: YES//
DESCRIPTION:
No existing text
Edit? NO//
ENTRY ACTION:
```

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```
Type: Continuous//
Solution: SODIUM CHLORIDE 0.9% INJ, SOLN //
Volume (in ml): 1000// 10.0
Choose from:
   50
  100
 1000
Volume (in ml): 1000//
Additive:
Route: INTRAVENOUS//
Infusion Rate (ml/hr): 125 ml/hr// 10.0
Enter the infusion rate, as the number of ml/hr or Text@Number of Labels
per day. .
Infusion Rate (ml/hr): 125 ml/hr// .5
Infusion Rate required a leading numeric value.
Enter the infusion rate, as the number of ml/hr or Text@Number of Labels
per day. .
Infusion Rate (ml/hr): 125 ml/hr//
```

Figure 4-3: Continuous infusion and errors (in bold font) example

Figure 4-4 shows an example of intermittent infusion.

```
Select QUICK ORDER NAME: PSIVZ TEST IV QO
NAME: PSIVZ TEST IV QO//
DISPLAY TEXT: Test quick order please do not use Replace
VERIFY ORDER: YES//
DESCRIPTION:
 No existing text
 Edit? NO//
ENTRY ACTION:
Type: Continuous// Intermittent
Solution: SODIUM CHLORIDE 0.9% INJ, SOLN //
Volume (in ml): 1000// 50
Additive: AMPICILLIN INJ
(Units for this additive are GM)
Strength: .5
A fractional number .5 must have a number to the left of the decimal.
Enter the strength of this additive, as a number.
Strength: 1.0
A fractional number 1.0 may not have a trailing zero
Enter the strength of this additive, as a number.
Strength: 1
Another Additive:
Route: INTRAVENOUS//
Infuse over time (min): .5
Infuse Over Time must be a whole number.
Enter the number of minutes over which to infuse this medication.
Infuse over time (min): 10.0
Infuse Over Time must be a whole number.
```

Enter the number of minutes over which to infuse this medication. Infuse over time (min):

Figure 4-4: Intermittent infusion and errors (in bold font) example

#### 4.1.4 Outside Medications

Figure 4-5 shows only the relevant portions of the QO creation process. Error messages are in bold font in this output for visibility, but display in normal font within RPMS.

```
Select QUICK ORDER NAME: PSOXZ TEST QO OUTSIDE
NAME: PSOXZ TEST QO OUTSIDE Replace
DISPLAY TEXT: This is a test QO please do not use
          Replace
VERIFY ORDER: YES//
DESCRIPTION:
 No existing text
 Edit? NO//
ENTRY ACTION:
Outside Medication:AMOX
    1 AMOXICILLIN 200MG/5ML PWDR, RENST-ORAL
    2 AMOXICILLIN 250MG/5ML PWDR, RENST-ORAL
    3 AMOXICILLIN CAP, ORAL
    4 AMOXICILLIN PWDR, RENST-ORAL
    5 AMOXICILLIN TAB
Press <RETURN> to see more, '^' to exit this list, OR
CHOOSE 1-5: 3 AMOXICILLIN CAP, ORAL
Complex dose? NO//
Choose from (or enter another):
    1 250MG $0.0156
2 500MG $0.0128
    1
    3 1000MG
                  $0.0256
    4 2000MG $0.0230
Dose: .5
Enter the amount of this drug that the patient is to receive as a dose,
NOT as the number of units per dose.
A fractional number .5 must have a number to the left of the decimal.
Dosage will not be saved/changed
Dose: 5.0
Enter the amount of this drug that the patient is to receive as a dose,
NOT as the number of units per dose.
A fractional number 5.0 may not have a trailing zero
Dosage will not be saved/changed
Dose: 1 250MG
                   $0.0156
```

Figure 4-5: Outside Medications and errors (in bold) example

### 4.2 Quick Order Wizard

While this component may not be widely used, it is still available and currently functional. The same validation described for EHR ordering will occur for creating and editing QO when using the Quick Order Wizard. Note that Non-VA medication QO cannot be created or edited in the EHR.

Med	ds Quick Order		
	INOPHEN 160MG/5ML PREPACK SUSP		
		Pt \	√t on 04/1
Dosage	Complex		
Dosage		Route	Schedul
.5 ml		ORAL	Q6H
Unabl	e to Save Quick Order Definition		×
	This quick order definition cannot be saved	for the following reaso	on(s): (
	A fractional number (.5) must have a number	er to the left of the dec	imal.
	ОК		

Figure 4-6: Unable to Save message for leading zero on Outpatient QO

Meds C	uick Order		
	PHEN 160MG/5ML PREPACK SUSP		
		Pt \	//t on 04/
Dosage	Complex		
Dosage		Route	Schedu
5.0 mL		ORAL	Q6H
Unable to	Save Quick Order Definition		×
8	This quick order definition cannot be saved	for the following reas	on(s):
	A fractional number (5.0) may not have a tra	iling zero.	
	ОК		1

Figure 4-7: Unable to Save message for trailing zero on Outpatient QO

Meds Quick Order			×
AMOXICLLIN 125MG/5ML PWDR,RENST-ORAL			Change
Display Bestrictions	Pt Wt	on 01/06/201	6 23.94 lb (10.86 kg)
Dosage Complex			
Dosage	Route	Schedule	
1 TEASPOONFUL 125MG/5ML	ORAL	TID	🗌 PRN
1 TEASPOONFUL 125MG/5ML	ORAL	Q2H	~
2 TEASPOONFULS 125MG/5ML		Q2W	
3/4 TEASPOONFUL 125MG/5ML 1/4 TEASPOONEUL 125MG/5ML		Q4H O5MIN	
1/2 Unable to Save Quick Order Definition		×	
5ML 2ML This quick order definition cannot be s	aved for the following rea	ason(s):	
Dosage units for Oral Liquids must be	standard metric units.		¥
Patie Instru >> Qu			

Figure 4-8: Unable to Save message for metric dose for Outpatient QO

V Med Quick Order			
Solutions Additives	Solution/Additive*	Volume/Stre	ngth*
	SODIUM CHLORIDE 0.9% IV 1000ML INJ	1000	ML
IPROFLOXACIN 400MG/200ML IV	MULTIVITAMINS INJ	1.0	ML
EXTRUSE 5% 1000ML INJ,SULN EXTROSE 5% 100ML INJ,SOLN	FOLIC ACID INJ,SOLN	.1	MG
EXTROSE 5% 500ML INJ, SOLN EXTROSE 5% ADVANTAGE 50ML EXTROSE 5% IN 0.45% SOD CHL	Comments Ret	move	
EXTROSE 5% IN 0.9% SOD CHL 11 EXTROSE 5% IN LACTATED RING EXTROSE 5% WITH 0.225% SOD ACTATED RINGER'S INJ.SOLN ID0CAINE 2GM/500ML D5W RG (4	~		
pute* (Expanded Med Route List) T	ype* (IV Type Help) Schedule * Infusion I	Rate (ml/hr)*	
ITRAVENOUS 💌	Continuous V PRN 10.0		
iority*	Jnable to Save Quick Order Definition		X
DUTINE	This quick order definition cannot be saved for the foll A fractional number (1.0) may not have a trailing zero. A fractional number (.1) must have a number to the left	owing reaso ft of the deci	n(s): imal.
Indicates a Required Field	Infusion Rate may not have a trailing zero.		
ULTIVITAMINS INJ 1.0 ML, FOLI DDIUM CHLORIDE 0.9% IV 1000M	ОК		

Figure 4-9: Unable to Save message for various leading and trailing zeros for Continuous Infusion QO

IV Med Quick Order				
Solutions Additives		Solution/Additive*	Volume/Str	rengtł
		SODIUM CHLORIDE 0.9% IV 50ML INJ	50	ML
TEPLASE 50MG INJ,LYPHL	^	CEFTRIAXONE 1GM INJ,SOLN	1.0	GM
INOPHYLLINE 250MG/10M		CEFAZOLIN 200MG/ML INJ,SOLN	.5	MG
FAZOLIN 200MG/ML INJ,SC FAZOLIN 200MG/ML INJ,SC FEPIME INJ,PWDR FOTAXIME 40MG/ML INJ,SOLN PROFLOXACIN 400MG/200M PROFLOXACIN 400MG/40MI 4FORAN <cefo XTROSE 5% ADVANTAGE 5 ite* (Expanded Med Route L RAVENOUS</cefo 	DLN OLN I IIIII IIIIII	Comments Remove (IV Type Help) Schedule * (Day-of-Week) Infuse Over T nittent V QDAY PRN .5	3 Time (Option Hour	nal)
rity*	Unable t	o Save Quick Order Definition	×	
UTINE  Give Additional Dose Now hin. Time: 1000 ected First Dose: TOMORRO dicates a Required Field TRIAXONE 1GM INJ,SOLN DIUM CHLORIDE 0.9% IV 50		This quick order definition cannot be saved for the following r A fractional number (1.0) may not have a trailing zero. A fractional number (.5) must have a number to the left of the Infuse Over Time can only be a whole number OK	eason(s): decimal.	

## Figure 4-10: Unable to Save message for various leading and trailing zeros for Intermittent Infusion QO

Meds C	uick Order		
ALBUTERO	LSYRUP		
		F	't Wt on 07/28/2016 196. Pt Ht on 07/28/2016 69
Dosage	Complex		
Dosage		Route	Schedule (Day-Of-W
.5ml		ORAL	
2MG/5ML 4MG/10ML	0.0568 0.1136	ORAL	Q6H Q8H
Unable to	Save Quick Order Definition		×
	This quick order definition cannot be saved	for the following re	ason(s): <sub>AY</sub>
	A fractional dosage (.5) must have a number	to the left of the d	lecimal. ER
	ОК		
Give Add	itional Dose Now		Prioritu
Admin. Time	: Not Defined		A ROUTI



## 5.0 CIR Tool

The CIR Tool is intended to allow providers and other clinical staff to reconcile information from other facilities or from the patient or caregiver to ensure all relevant information is available for the care of the patient. Information may be obtained from sources such as documents sent to your facility in the Consolidated Clinical Document Architecture (CCDA) format, or from a patient or caregiver interview, a medication list the patient or caregiver has, actual medication bottles, or any other source that can provide information regarding problems, adverse reactions, or medications.

In most cases, CCDAs received from external partners should be imported into the patient's IHS medical record. Follow the processes, procedures, and policies for document import. This section assumes the site has set up and configured the Veterans Health Information System and Technology Architecture (VistA) Imaging Capture tool (known as VIC) and knows how to use the tool.

If the VIC setup and configuration is unknown, check with your site Information System Security Officer (ISSO), Health Information Management (HIM) personnel, Clinical Informaticist, or Clinical Application Coordinator (CAC) for more information. All images shown within this section are for illustration purposes and contain demo data only.

Note:	Before proceeding make sure you have completed all the			
	required training and that you understand your site's			
	processes, procedures, or policies. If you do not know your			
	site's processes, procedures, or policies regarding clinical			
	information reconciliation, check with your ISSO, HIM			
personnel, Clinical Informaticist, or CAC before				
	continuing. For more detailed information about the CIR			
	tool, see the EHR User Manual or work with your site HIM			
	personnel, Clinical Informaticist, or CAC. Questions or			
	issues with the CIR tool should be directed to the CIR			
	team.			

## 5.1 Launch the CIR Tool

The CIR Tool icon is a circle of four arrows with the text **CIR** or a number. When a patient has not been selected, the icon will be green with the letters CIR in the center; see Figure 5-1.



Figure 5-1: The CIR Tool icon with no patient selected

Once a patient has been selected, the icon will be green if the patient has no CCDA documents to reconcile. The number on the icon will represent the number of CCDA documents received, as shown in Figure 5-2.



Figure 5-2: The CIR Tool icon for a patient with no CCDA documents to reconcile and no CCDA documents received

If the patient has CCDA documents that must be reconciled, the icon will be red and display the number of CCDA documents not reconciled. See Figure 5-3.



Figure 5-3: The CIR Tool icon appearance with 3 CCDA documents to reconcile.

Hover the mouse pointer over the CIR Tool icon to display the number of CCDA documents that have already been reconciled as well as the total number of documents. See Figure 5-4.



Figure 5-4: Hover text over the CIR Tool icon showing the number of reconciled and the total number of CCDA documents.

Launch the CIR Tool by clicking on the icon. The tool will launch in a pop-up window over the main EHR window.

The CIR Tool will show the **CCDA Source** at the top. Tabs for **Problems**, **Adverse Reactions**, and **Medications** display in the middle. **Reconciled** items (**Problems**, **Adverse Reactions**, or **Medications** depending on the tab selected) display at the bottom. Sources will be blank if the patient has no CCDA documents. The tabs default to **Problems**. **Reconciled Problems** will be collapsed by default.

The overall window and the various panes may be resized by dragging the edges or splitter bars to the desired size. Column widths may also be resized, and clicking on a column header will sort by that column. Clicking again will reverse the sort order.

CIR Tool - Demo,Pat	tient									_		×
CCDA Source	v								A	ccept All	Car	ncel All
<ul> <li>Generated by CCDA</li> </ul>												
Select Source			Responsible Party	En	counter Date	Created	Class	Reconciled				
USA MEDICAL GR	OUP		Test Doctor, M.D.	12/	/26/2016 to 12/19/2017	3/26/2020	CCDA					^
Indian Health Ser	vice BCCD - LAWTON II	NDIAN HOSPITAL (8046)		05/	/05/2017	1/24/2018	CCDA	A(4/23/2020)				
Indian Health Ser	vice BCCD - LAWTON II	NDIAN HOSPITAL (8046)		05/	/05/2017	1/24/2018	CCDA					
Indian Health Ser	vice BCCD - 2013 DEMO	D HOSPITAL (CMBA) (8992)		09/	/19/2017	12/11/2017	CCDA	A(4/23/2020); P	(4/23/2020)	; M(4/23/2	020)	
Indian Health Ser	vice BCCD - 2013 DEMO	D HOSPITAL (CMBA) (8992)		09/	/19/2017	12/5/2017	CCDA	A(4/23/2020); P	(4/23/2020)	; M(4/23/2	020)	
Indian Health Ser	vice BCCD - 2013 DEMO	D HOSPITAL (CMBA) (8992)		09/	/19/2017	12/5/2017	CCDA	A(4/23/2020); P	(4/23/2020)	; M(4/23/2	020)	
Indian Health Ser	vice BCCD - 2013 DEMO	D HOSPITAL (CMBA) (8992)		09/	/19/2017	12/4/2017	CCDA	A(4/23/2020); P	(4/23/2020)	M(4/23/2	020)	
Indian Health Ser	vice BCCD - 2013 DEMO	DHOSPITAL (8992)		10/	/02/2012 to 10/03/2012	12/5/2017	CCDA	A(4/23/2020) · P	(4/23/2020)	M(4/23/2	020)	~
Problems Adverse Rea	ctions Medications											
	RP	MS					Cli	nical Document				
Problem	Status	Onset Las	st Date		Problem	Status	(	Onset	Source	Las	st Date	
+ Diabetes mellitus test text	CHRONIC	10/	/22/2015	^								
Asthmaltesting issue	CHRONIC	5/4	1/2020									
+ with no buttons displaying												
+ Pregnancy eruption	CHRONIC	9/2	20/2018									
Antenatal care testing	CHRONIC	9/2	20/2018									
+ carriage return in visit instrucitons												
+ Diabetes mellitus type 2 without retinopathy	CHRONIC	11/	/1/2017									
+ Essential hypertension	CHRONIC	8/1	1/2018									
+ Multiple chronic diseases	CHRONIC	11/	/24/2017									
+ Hepatocellular jaundice	CHRONIC	9/2	20/2018									
Chronic thoracic back	CHRONIC	2/1	£/2019	v								_

Figure 5-5: CIR Tool default view on launch for patient with CCDA documents

All CCDA documents will display for the patient, with the unreconciled items at the top of the list. Reconciled items will have data in the **Reconciled** column. The letters **A**, **P**, and **M** represent **Adverse Reactions**, **Problems**, and **Medications** respectively. The date in parentheses is the date that item was last reconciled.

You may view the CCDA in full, or one of its sections, by right-clicking on the line item and selecting the appropriate option from the context menu that displays. The list of sections will vary based on the document selected.

<ul> <li>Generated by CCDA</li> </ul>					
Select	Sou	irce			
✓	USA	MEDICAL GROUP			
	Indi	FULL CCDA	0		
	Indi	Social History	0		
	Indi	Payers	4		
	Indi	History of Encounters	4		
	Indi	Functional Status	4		
	Indi	Family History	4		
Indi		Vital Signs	2		
Problems		Allergies And Adverse Reactions			
		Treatment plan			
Pro	blen oete:	Medications			

Figure 5-6: The context menu options for viewing a CCDA document

### 5.2 Select a Visit

The user must select a visit to reconcile a document or documents. If you have not already set a visit context in the EHR, the **Visit** button will be available in the CIR Tool. Click **Visit** to open the **Encounter Settings for Current Activities** window. Set the visit details as defined by your site.



Figure 5-7: The Visit button in the CIR Tool

Encounter Settings for Current Activities						
<select a="" below.="" location=""></select>						
Encounter Location Appointments / Visits Hospital Admissions New Visit						
Visit Location	Date of Visit					
2013 DEMO HOSP PHARMACY BLUE CLINIC CHART REVIEW 2013 DH CLINIC DEMO-2 CT SCAN DEMO CLINIC DEMO PA	Tuesday , May       5, 2020 ~         Time of Visit         11:24 AM         Type of Visit         Ambulatory         Create a Visit Now					
MD	~					
	OK Cancel					

Figure 5-8: The Encounter Settings for Current Activities window

#### 5.3 Select a Source

Select a source by either clicking on one or more CCDA documents, or by selecting one of the sources in the menu labeled **CCDA Source**. The items in this list are controlled by the parameter BEHOCIR SOURCES, but default to **Patient History**, **Caregiver**, and **Patient Medication List**. Other items may display if there are CCDA documents present.

After selecting a source, the user may begin to reconcile the problems, adverse reactions, and/or medications. If a CCDA document is selected, the problems, adverse reactions, and medications from that document populate the appropriate tab in the middle section. For the purposes of this manual, it will be assumed from here on that the user has selected a CCDA document.

The **Reconciled Problems** at the bottom will open and populate with the problems from the local RPMS database by default.

CIR Tool - Demo,Pat	tient										_		Х
CCDA Source	v									Acc	ept All	Cance	el All
Generated by CCDA													
Select Source			Responsible Party	Enc	oun	ter Date	Created	Class	Reconciled				
USA MEDICAL GR	OUP		Test Doctor, M.D.	12/2	26/2	016 to 12/19/2017	3/26/2020	CCDA					^
Indian Health Sen	vice BCCD - LAWTON II	NDIAN HOSPITAL (8046)		05/0	05/2	017	1/24/2018	CCDA					
Indian Health Sen	vice BCCD - LAWTON II	NDIAN HOSPITAL (8046)		05/0	)5/2	017	1/24/2018	CCDA					
Indian Health Sen	vice BCCD - 2013 DEMO	D HOSPITAL (CMBA) (8992	2)	09/1	19/2	017	12/11/2017	CCDA	A(1/5/2018);	P(1/5/2018) ; M(1	/5/2018)		
Indian Health Sen	vice BCCD - 2013 DEMO	D HOSPITAL (CMBA) (8992	2)	09/1	19/2	017	12/5/2017	CCDA	A(1/2/2018);	P(1/2/2018) ; M(1	/2/2018)		
Indian Health Sen	vice BCCD - 2013 DEMO	D HOSPITAL (CMBA) (8992	2)	09/1	19/2	017	12/5/2017	CCDA	A(1/2/2018);	P(1/2/2018); M(1	/2/2018)		
Indian Health Sen	vice BCCD - 2013 DEM	D HOSPITAL (CMBA) (8992	2)	09/1	19/2	017	12/4/2017	CCDA	A(1/5/2018);	P(1/5/2018); M(1	/5/2018)		
Indian Health Sen	vice BCCD - 2013 DEMO	D HOSPITAL (8992)		10/0	12/2	012 to 10/03/2012	12/5/2017	CCDA	A(1/5/2018) ·	P(1/5/2018) • M(1	/5/2018)	_	~
Problems Adverse Rea	ctions Medications												
	RP	MS						Cli	nical Documen	t			
Problem	Status	Onset L	ast Date			Problem	Status	0	nset	Source	Last D	ate	
Antenatal care testing	CHRONIC	9,	/20/2018	$\sim$		Nutritional	Active	13	2/22/2017	Indian Health			^
+ carriage return in visit					+	assessment				LAWTON INDIA	N		
Diabetes mellitus type	CHRONIC	1	1/1/2017							HOSPITAL (804)	5)		
+ 2 without retinopathy						Nasal congestion	Active	13	2/18/2017	Indian Health			
+ Essential hypertension	CHRONIC	8,	/11/2018		+					LAWTON INDIA	N		
+ Multiple chronic	CHRONIC	1	1/24/2017							HOSPITAL (804)	5)		_
diseases	CHRONIC	0	(20/2018			Dispensing	Active	13	2/01/2017	Indian Health			
	CHROINIC	5	20/2016	Ŷ		Imedication				Service BCCD -			Ŷ
Reconciled Problems	;				_			_					
									Add Pro	blem Accept P	roblems	Can	cel
Problem		Status		0	nset	t			Action				
Diabetes mellitus test text		Chronic							RPMS: Revie	ewed, No Action			$\sim$
Asthmaltesting Kathleens	issue with no buttons	Chronic							RPMS: Revie	ewed, No Action			
Pregnancy eruption		Chronic		-					RPMS: Revie	ewed. No Action			_
Antenatal careltesting car	riage return in visit	Chronic							RPMS: Revie	ewed No Action			

Figure 5-9: CIR Tool with CCDA document selected showing Problems reconciliation

#### 5.4 Reconcile Problems

The middle section of the CIR Tool is where the information from the local RPMS database and the incoming information may be compared. In the left pane is the information from the local RPMS database. In the right pane is the information from the CCDA document.

Each pane may be sorted by any of the column headers. Click on the plus sign next to any given problem in either pane to see the details of the problem. Right-click a problem to see the context menu actions available. Context menu actions are described in the following sections.

1	Problems	Adve	rse Reactions	Medications									
Γ			RPI	MS				Clinical Document					
	Proble	m auenu	Status	Onset	Last Date			Problem	Stat	Onset	Source	Las	
	ed		5112 C1 11 C			^	-	Diabetes mellitus type	Acti	09/19/2	(CMBA) (8992) Indian Health		
	2 witho	es s type ut athy	CHRONIC		11/1/2017			2 without retinopathy   Diabetes II	ve	017	Service BCCD - 2013 DEMO HOSPITAL (CMBA) (8992)		
Problem ID: TST-13 Problem: Diabetes mellitus type 2 w Mapped ICD: E11.9 Status: CHRONIC Description: Diabetes mellitus type 2 w Last Edit: 11/1/2017 Concept Code: 1481000119100 Desc Code: 3013049012						Problem ID: F Problem: I Status: // Symptom: I Onset: ( Active Period: ( Concept Code: I Source: I	2B12 Diab Acti Diab D9/1 D9/1 L481 SNOM Endi	228N etes me etes me 9/2017 9/2017 000119 ED CT an Hea	ellitus type ellitus type LOO lth Service	2 2 2 2 BCC			
	Diabete	es	CHRONIC		10/22/2015	$\sim$							

Figure 5-10: A portion of the CIR Tool with problem details

#### 5.4.1 RPMS problems

For RPMS problems, context menu actions include **Change**; **Reviewed**, **No Action**; **View Details**; and **Entered In Error**.

Prob	olems	Adverse Reaction	ons Medicatio	ons				
				RPMS				
	Proble	m	Status			Onset	Last [	Date
+	Non-co therapy	mpliance of drug	EPISODIC				11/24	/2017
+	Pregna	ncy eruption	CHRONIC				9/20/	2018
+	Sepsis		EPISODIC				8/11/	2018
+	Taking i medica disease	multiple tions for chronic	EPISODIC				11/24	1/2017
+	Type 1	diabetes mellitus	CHRONIC				8/11/	2018
+	Type 2	diabetes mellitus	CHRONIC				8/11/2018	
+	Type I o unconti	liabetes mellitus rolled	EPISODIC				8/11/	2018
+	Type II unconti	diabetes mellitus rolled	EPISODIC		Ch	ange	8/11/	2018
$\odot$	<ul> <li>Reconciled Problems</li> </ul>			Re	viewed, No Action			
					Vi	ew Details		
Pro	blem				En	tered In Error		

Figure 5-11: Context menu actions for RPMS problems

#### 5.4.1.1 Change

Select **Change** to display the **Reconcile RPMS Problem** window (Figure 5-12). Here, users may edit the problem as needed.

Reconcile RPMS Problem								
Problem ID T	ST-40 Priority 999	Pregnancy Related	Use as POV	Save Cancel				
* SNOMED CT	Type II diabetes mellitus uncontro	blled		Get SCT Pick list				
* Status	O Chronic O Sub-acute 🔍	Episodic O Social/Environmer	ntal O Inactive O	Personal ł				
* Required Field	ł							
Provider Text								
	Type II diabetes mellitus uncont	rolled E11.65						
	Severity:	Clinical Course						
Qualifiers	Severity	Clinical Course						
	ÿ							
Date of Onset								
Comments				Add Delete				
# Narrativ	e		Date	Author				

Figure 5-12: Reconcile RPMS Problems window

#### 5.4.1.2 Reviewed, No Action

Select **Reviewed**, **No Action** to mark the item in the **Reconcile Problems** list. For ease of documentation, this action is the default for all RPMS problems. The user only needs to select this if some other action was selected first and the user wishes to go back to the **Reviewed**, **No Action** option.

(	Reconciled Problems								
	Add			Problem Accept Problems	Cancel				
I	Problem	Status	Onset	Action					
	Acute-on-chronic renal failure	Episodic		RPMS: Reviewed, N	lo Action 🛆				
	Acuto on chronic	Enicodic		DDMS: Doviewed N	la Action				

Figure 5-13: The Reconciled Problems section with action RPMS: Reviewed, No Action

#### 5.4.1.3 View Details

Select **View Details** to display a new window where the problem details are listed. If there is a corresponding problem (matched by SNOMED CT Concept ID and/or by name) in the **Clinical Document** pane, the details for that problem will also display. The user may right-click on the problem to see all the same context menu actions as on the main window except **View Details**.

Oetails				_	- 🗆	×	
Patient: Der	mo,Patient   HR#: 111						
	RPMS	Clinical Document					
Problem	Details		Problem	Details			
Asthmajtest	Problem ID: Problem: Mapped ICD: Status: Description: Last Edit: Concept Code: Desc Code:	TST-4 Asthma testi J45.909 CHRONIC Asthma 12/22/2014 195967001 301485011	Asthma	Problem ID: Problem: Status: Symptom: Onset: Active Period: Concept Code: Code System: Source:	PB122 Asthm Activ Asthm 09/19 09/19 19596 SNOME India	233N na na 0/2017 0/2017 77001 2D CT nn Healt	
				C	К	Cancel	

Figure 5-14: Details window with RPMS problem and corresponding Clinical Document problem

Oetails								
Patient: Demo,Patient   HR#: 111								
		RPMS						
Problem	Details							
Essential hypertension Change Reviewed, N Entered In E	o Action rror Desc Code:	TST-14 Essential I10. CHRONIC Essential 8/11/2018 59621000 99042012	hypertension hypertension					

Figure 5-15: Context menu actions for RPMS problem details

#### 5.4.1.4 Entered In Error

Select **Entered In Error** to open the **Delete RPMS Problem** window (Figure 5-16). The user may select the appropriate reason or type in another, then click **OK**. Note that problems may not be deleted if used for any visit as Purpose of Visit (POV), or they contain Visit Instructions, Care Planning, or goals.

🥣 Delete RPMS Problem	×					
Reason for deleting the problem?						
Type II diabetes mellitus uncontrolled						
O Duplicate						
<ul> <li>Entered in Error</li> </ul>	ОК					
O Other	Cancel					

Figure 5-16: Delete RPMS Problem window

#### 5.4.2 Clinical Document Problems

For Clinical Document problems, actions include Add; Do Not Add, Redundant; Do Not Add, Not Clinically Significant; and View Details.

		Clinical Docum	ent				
Г	Problem Status	Onset	Source	Last Date			
	+		LAWTON INDIAN HOSPITAL (8046)				
	+ Telephone Active	09/16/2015	Indian Health Service BCCD - LAWTON INDIAN HOSPITAL (8046)				
	+ Tobacco Active dependence, continuous	03/23/2017	Indian Health Service BCCD - LAWTON INDIAN HOSPITAL (8046)				
	Type II diabetes Active mellitus	04/02/2012	Indian Health Service BCCD -				
	uncontrolled	Add Do Not Add, Redur Do Not Add, Not G	Add Do Not Add, Redundant				
		View Details	View Details				

Figure 5-17: The CIR Tool with context menu actions for Clinical Document problems

#### 5.4.2.1 Add

Select **Add** to open the **Add CCDA Problem** window (Figure 5-18). The user may fill in the appropriate fields and click **Add**.

Add CCDA Problem								
Problem ID -	Priority	<b>•</b>	Pregnar	icy Related 🔽 Us	e for Inpatie	nt	Save	Cancel
* SNOMED CT	Tobacco depe	endence, continu	ous				Get SCT	Pick list
* Status	• Chronic	<ul> <li>Sub-acute</li> </ul>	O Episodic	<ul> <li>Social/Environ</li> </ul>	imental 🔿	Inactive 🔾	Personal I	
* Required Field	ł							
Provider Text								
	Tobacco dependence, continuous F17.290							
	Severity:			Clinical Course				
Qualifiers	Severity			Clinical Course				
		~						
Date of Onset	03/23/2017							
Comments							Add	Delete
# Narrati	ve		*			Date	Author	
This pr	oblem was reco	onciled from CCD	h Health Servi	05/04/2020				

Figure 5-18: Add CCDA Problem window

If a problem with the same SNOMED CT concept ID is already present in RPMS, the error message shown in Figure 5-19 displays.



Figure 5-19: Duplicate SNOMED Concept Error window

#### 5.4.2.2 Do Not Add, Redundant

Selecting the **Do Not Add, Redundant** option marks the problem in the Reconciled Problems at the bottom. Because "redundant" implies there is an existing RPMS entry, the item will most often have an RPMS action and a clinical document (CCDA) action listed.

Reconciled Pro	Reconciled Problems									
		Add Probl	em Accept Problems	Cancel						
Problem	Status	Onset	Action							
Type 2 diabetes mellitus	Chronic		RPMS: Reviewed, 1 CCDA: Do Not Ado Redundant	No Action   ^						
Deservations		10/02/2012	DDMC, Deviewed A	In Antina I						

Figure 5-20: Reconciled Problems section with problem with CCDA action Do Not Add, Redundant

#### 5.4.2.3 Do Not Add, Not Clinically Significant

Selecting the **Do Not Add, Not Clinically Significant** option marks the problem in the **Reconciled Problems** section at the bottom.

(	Reconciled Problems									
				Add Problem	Accept Problems	Cancel				
Γ	Problem	Status	Onset		Action					
	Dependance on		10/02/2012		RPMS: Reviewed, N	No Action				
	walking stick				CCDA: Do not add,	not				
					clinically significan	t				

Figure 5-21: Reconciled Problems section with problem and the CCDA action Do not add, not clinically significant

#### 5.4.2.4 View Details

Selecting the **View Details** option opens a new window where the problem details are listed (Figure 5-22). If there is a corresponding problem (matched by SNOMED CT Concept ID and/or by name) in the RPMS pane, the details for that problem will also display. The user may right-click on the problem to see all the same actions as on the main window except **View Details**.

Oetails					_		×	
Patient: Demo,Patient   HR#: 111								
RPMS			Clinical Document					
Problem	Details		Problem Details					
Asthmaltesting	Problem ID: Problem: Mapped ICD: Status: Description: Last Edit: Concept Code: Desc Code:	TST-4 Asthma te J45.909 CHRONIC Asthma 12/22/201 195967001 301485011	Asthma	Problem ID: Problem: Status: Symptom: Onset: Active Period Concept Code: Code System: Source:	PB3 Astl Act: Astl 09/2 195/2 SNO Ind	94839 hma ive hma 28/20 28/20 96700 4ED C ian H	937N 914 914 91 T Health	
				ОК	С	ancel		

Figure 5-22: Details window for Clinical Document and corresponding RPMS problems

Clinical Document						
Problem Details						
Asthma	Problem ID: PB39483937N Problem: Asthma Status: Active Symptom: Asthma Onset: 09/28/2014 Active Period: 09/28/2014 Concept Code: 195967001 Code System: SNOMED CT Source: Indian Health Service BCCD - L Add					
	Do Not Add, Redundant					
	Do Not Add, Not Clinically Significant					

Figure 5-23: Context menu options for Clinical Document problem

#### 5.4.3 Review the Reconciled Items

Once all the problems have been reconciled, you may review the items and the actions taken in the **Reconciled Problems** section at the bottom of the main **CIR Tool** window. Each item from RPMS and each item from the clinical document that had an action taken on it will be listed, along with the status and onset date.
(	Reconciled Problems									
					Add Problem	Accept Problems	Cancel			
ſ	Problem	Status	Onset	A	ction					
	Diabetes mellitus type 2 without retinopathy	Chronic		R A	PMS: Reviewed, dd, Redundant	No Action   CCDA: D	o Not	^		
	Adult health examination	Episodic		R	PMS: Reviewed, ot clinically signi	No Action   CCDA: D ficant	o not add,			
	Dependence on walking stick	Chronic	10/02/2012	R	PMS: Reviewed,	No Action   CCDA: A	dd			
	Diabetic hyperosmolar non-ketotic state	Episodic		R	PMS: Reviewed,	No Action				

Figure 5-24: The Reconciled Problems section with actions taken on each item

# 5.4.3.1 Add Problem

If needed, you may add a completely new problem from this section by clicking the **Add Problem** button to open the **Add Problem** window (Figure 5-25). You may search for a SNOMED CT code and complete the remaining information as usual.

Add Problem				x
Problem ID TS	-56 Pregn	ancy Related 📃 Use as PO	ov	Save Cancel
* SNOMED CT			(	Get SCT Pick list
* Required Field				
Provider Text				

Figure 5-25: The CIR Tool Add Problem window

#### 5.4.3.2 Accept Problems

Until the reconciled items are accepted, no changes are made to the record. To accept all the reconciled problem information and not the adverse reaction and medication information, click **Accept Problems**. This is generally only used if you are only reconciling problems.

If you reconciled other items, click the **Accept All** button (see Section 5.7). After selecting the Accept Problem button, the Review/Sign Changes window displays (Figure 5-26). The reconciled items will display along with any other items needing signature.

Review/Sign Changes for Demo,Patient						
Signature will be applied to checked items All Orders Except Controlled Substance Orders						
Chart Review	~					
Adverse Reactions - Reviewed						
CIR Reconciled Problems						
Diabetes mellitus: RPMS: Reviewed, No Action						
Asthma: RPMS: Reviewed, No Action						
Pregnancy eruption: RPMS: Reviewed, No Action						
Antenatal care: RPMS: Reviewed, No Action						
Diabetes mellitus type 2 without retinopathy: RPMS: Reviewed, No						
	~					
	*					
Electronic Signature Code:	*					
Electronic Signature Code:	*					
Electronic Signature Code:	*					
Electronic Signature Code:	*					

Figure 5-26: Review/Sign Changes for Reconciled Problems

The CIR Tool information for Problems will reset, and the CCDA document will reflect the reconciliation type and date.

# 5.4.3.3 Cancel

If you do not wish to complete the reconciliation, of if you wish to undo your changes, click the **Cancel** button. This will remove all of the previously selected actions for the Adverse Reactions.

# 5.5 Reconcile Adverse Reactions

Click on the **Adverse Reactions** tab to view the adverse reactions recorded in the RPMS Adverse Reactions package (and not reactions documented in the problem list) in the left pane, and any adverse reactions documented in the selected clinical document or documents in the right pane.

Each pane may be sorted by any of the column headers. Click on the plus sign next to any given reaction in either pane to view the details of the reaction. Right-click a reaction to see the context menu actions available. Context menu actions are described in the following sections.

Ρ	roblems Adve	rse Reactions	Medication	ns								
			RPMS				Clinical Document					
Г	Causative Ag	Event	Symptoms	Status	Last Date		Causative	/Event	Symptom	Status	Source	Last Date
	+ ASPIRIN RELATED MEDICATION S	DRUG ALLERGY 416098002	ANXIETY	ACTIVE		^	CODEINE	Drug allergy (disorder)	NAUSEA	ACTIVE	Indian Health Service BCCD -	12/31/201 3
	- CODEINE	DRUG ALLERGY 416098002	NAUSEA, ANXIETY	ACTIVE							2013 DEMO HOSPITAL (8992)	
	Causative / Event: Signs/Sympt Drug Class Ingredients Originated Verified: Observed/H Source: Last Modifi	Agent: toms: es: Date: jote: istorical:	CODEINE DRUG ALL NAUSEA, OPIOID A CODEINE: F Jan 02, No Historic EXTERNAL JAN 02,	ANXIETY NALGESICS RXNorm: 2 2018@06:3 al SOURCE 2018@06:3	98002 2670 ; UNI 3:44 3:44 by RI	a x	Causative Reaction: Trug Code Drug Code Code: Code Syst Ode Syst Ode Syst	Agent: System: em: em Name: Time:	C Name: R 4 2 5 1 1 1	CODEINE HAUSEA (CTIVE 670 txNorm 16098002 1.16.840. NOMED CT .2/31/201 Indian He	1.113883 .3 ealth Ser	.6.96 vice BCC[

Figure 5-27: A portion of the CIR Tool is shown with adverse reaction details showing

# 5.5.1 RPMS Adverse Reactions

For RPMS Adverse Reactions, right-click actions include **Change**; **RPMS**: **Reviewed**, **No Action**; **Entered in Error**; **Inactivate**; and **View Details**.

Last Dat
98002
2670 ; 3:44

Figure 5-28: A portion of the CIR Tool with right click actions for RPMS adverse reactions

#### 5.5.1.1 Change

Selecting the **Change** option opens the **Edit Adverse Reaction** window (Figure 5-29). In this window, you may change the event code, source of information, add signs/symptoms, add a source of a sign/symptom, and add comments. You may not change the causative agent, remove the originally documented signs/symptoms, or adjust the date/time of the original signs/symptoms.

🥥 Edit Adverse Reacti	on			_		×
Causative Agent:	CODEINE					
<ul> <li>53 matches found VA Allergies File</li> <li>National Drug F CODEINE</li> <li>CODEINE/TE</li> <li>CODEINE/PE</li> <li>CODEINE/PE</li> <li>CODEINE/PE</li> </ul>	e (0) iile - Generic Dru ERPIN HYDRATE HENYLEPHRINE/R ROMETHAZINE	ng Name (28) PROMETHAZ				~
Nature of Reaction:				Drug		~
Event Code:				DRUG ALLERGY		~
Source of Information:				EXTERNAL SOURCE		~
Signs/Symptoms Available ANXIETY ITCHING,WATERING I HYPOTENSION DROWSINESS NAUSEA,VOMITING DIARRHEA HIVES	EYES	Source:	Selected NAUSEA D ANXIETY J	Pec 31, 2013@05:23 E an 2, 2018@06:32:53	XTERNAL	SOUF
Imprecise Date		Date/Time:	04/22/2020	0 07:47		
Comments:						
				ОК	Ca	ncel

Figure 5-29: The Edit Adverse Reaction window of the CIR Tool

### 5.5.1.2 RPMS: Reviewed, No Action

Selecting the **RPMS: Reviewed**, **No Action** option marks the item in the **Reconciled Adverse Reactions** section at the bottom (Figure 5-30). For ease of documentation, this action is the default for all RPMS reactions, so the user only needs to select this if some other action was selected first and the user wishes to go back to the **RPMS: Reviewed**, **No Action** option.

(	Reconciled Adverse Reactions										
		Add Alle	ergy Accept Adverse R	eactions Cancel							
ľ	Causative Agent	Event	Symptoms	Action							
I	ASPIRIN RELATED	DRUG ALLERGY	ANXIETY	RPMS: Reviewed, No							
	MEDICATIONS	416098002		Action							
	CODEINE	DRUG ALLERGY	NAUSEA, ANXIETY	RPMS: Reviewed, No							
		416098002		Action							

Figure 5-30: Reconciled Adverse Reactions in the CIR Tool with Codeine marked RPMS: Reviewed, No Action

# 5.5.1.3 Entered in Error

Selecting the **Entered in Error** option displays the **Entered in Error** window (Figure 5-31), which will logically delete the entry. The entry will still exist in the system but will be marked as entered in error, will not display in the patient chart, and will not be used in order checks.

Entered in Error	×
If CODEINE was Entered in Error, please provide a comment	OK Cancel



#### 5.5.1.4 Inactivate

Selecting the Inactivate option opens the following secondary options: **No Longer Allergic** and **Reaction is Tolerable**. Selecting one of these options will mark the reaction as inactive with the selected reason. These reactions will be available to view in the record but will not be used in order checks.

Problems Adverse Rea	o	blems	Adver	se React	tions	Medications		
						RPMS		
		Causat	ive Ag	Event		Symptoms	Status	Last Date
-	ŀ	CODEII	NE	DRUG ALLERG` 4160980		Change RPMS: Revie	active	ion
+ PEANUT FOOD BUTTER; ALLERG' UNII: 4142850						Entered in Error Reactivate		
No Longer Allergic Reaction is Tolerable					Inactivate •			
					View Details			
	Pr	Prol	Problems Causat CODEII + CODEII + PEANU BUTTEI UNII: .onger Aller tion is Toler	Problems Adver	Problems Adverse React	Problems       Adverse Reactions         Causative Ag Event       Image: Constant of the second	Problems     Adverse Reactions     Medication       RPMS       Causative Ag Event     Symptoms       CODEINE     DRUG     NAUCCA       +     CODEINE     DRUG       +     PEANUT     FOOD       BUTTER;     ALLERG     Entered in E       UNII:     4142850     Reactivate       .onger Allergic     Inactivate     View Details	Problems       Adverse Reactions       Medications         RPMS         Causative Ag Event       Symptoms       Status         CODEINE       DRUG       ACTIVE         +       CODEINE       DRUG       ACTIVE         +       CODEINE       DRUG       ACTIVE         +       PEANUT       FOOD       Change         BUTTER;       ALLERG'       Entered in Error         UNII:       4142850       Reactivate         .onger Allergic       Inactivate       View Details

Figure 5-32: A portion of the CIR Tool window with the context menu for adverse reactions showing Inactivate option and secondary menu

#### 5.5.1.5 View Details

Selecting the **View Details** option will display the same details as when using the plus sign, but in a new window. Additionally, if there is a matching reaction in the clinical document section, that reaction will also display with its details.

Jetail	s			_		×
Patient: De	emo,Patient  HR#: 111					
	RPMS			<b>Clinical Document</b>		
Causative	Details		Causative	Details		
CODEINE	Causative Agent: Event: Signs/Symptoms: Drug Classes: Ingredients: Originated: Originated Date: Verified: Observed/Historical: Source: Last Modified:	CODEINE DRUG ALLERGY 416C NAUSEA, ANXIETY OPIOID ANALGESICS CODEINE; RXNorm: Jan 02, 2018@06:3 No Historical EXTERNAL SOURCE JAN 02, 2018@06:3	CODEINE	Causative Agent: Reaction: Status: Drug Code: Drug Code System Name: Code: Code System: Code System: Effective Time: Source:	CODEINE NAUSEA ACTIVE 2670 RxNorm 4160980 2.16.84 SNOMED 12/31/2 Indian	002 0.1 CT 2013 Hea
	1					

Figure 5-33: A portion of the Details window for Adverse Reactions in CIR Tool

Right-clicking on the reaction from the details window will give the same actions as are available on the main window, except for **View Details**.

Gen	erated by CCD	Details	5									
lect	Source	Patient: De	Patient: Demo,Patient   HR#: 111									
/	Indian Health S		RPMS									
	Indian Health S	Causative	Causative Details									
bler Cau	ns Adverse Re	CODEINE	Causa Event Signs Drug Ingre	ative :: s/Sym Clas edien	Agent: ptoms: ses: ts:	CODEINE DRUG ALLI NAUSEA, OPIOID AI CODEINE;	ERGY 4160 ANXIETY VALGESICS RxNorm:					
COI PEA	DEINE DRUG ALLE 4160 NUT FOOI		Orig Orig Veri Obse Sour Last		Change RPMS: Reviewed Entered in Error	d, No Action	:3					
	No Longer	Allergic			Inactivate		•					
	Reaction is	Tolerable										



# 5.5.2 Clinical Document Adverse Reactions

For Clinical Document adverse reactions, context menu options include Add; CCDA: Do not add, redundant; CCDA: Do not add, not clinically significant; and View Details. See Figure 5-35.

			Clinical D	ocument					
Cau	sative /	Event	Symptom	Status	Source	Last	Dat		
COE	DEINE	Drug allergy (disorder)	NAUSEA	ACTIVE	Indian Health Service BCCD -	12/31 3	1/20		
	Add CCDA CCDA View	A: Do not a A: Do not a Details	dd, redund dd, not clin	ant ically sigr	ificant				
Status: ACTIVE									

Figure 5-35: Context menu actions on adverse reaction Details window in CIR Tool

#### 5.5.2.1 Add

Selecting Add displays the Add Adverse Reaction window (Figure 5-36). The information available from the clinical document will be prepopulated in the appropriate fields, with the source being documented as "external source." You may adjust the causative agent, and add or edit the Event Code, Source of Information, Signs/Symptoms, Source, and Date/Time fields. Comments may be added if needed.

Add Adverse React	ion			_		$\times$
Causative Agent:	PENICILLIN G E	ENZ 600000	SYRINGE		S	earch
<ul> <li>48 matches found VA Allergies File</li> <li>National Drug F PENICILLIN PENICILLIN/</li> <li>National Drug f PENICILLIN</li> </ul>	e (0) iile - Generic Dru PROBENECID ile - Trade Name G POTASSIUM G POTASSIUM IN	g Name (2) (41)				~
Nature of Reaction:				Drug		~
Event Code:				DRUG ALLERGY		Ŷ
Source of Information:				EXTERNAL SOURCE		Ŷ
Available ANXIETY ITCHING,WATERING HYPOTENSION DROWSINESS NAUSEA,VOMITING DIARRHEA HIVES	EYES	₽	Selected HIVES Dec	31, 2013 EXTERNAL S	OURCE	
		Source:	EXTERNAL	SOURCE		~
Imprecise Date		Date/Time:	12/31/201	3 00:00		
Comments:						
from Demo Hospital da	ata					
				ОК	Car	ncel

Figure 5-36: The Add Adverse Reaction window of the CIR Tool

# 5.5.2.2 CCDA: Do Not Add, Redundant

Selecting the **Do not add, redundant** option marks the reaction in the **Reconciled Adverse Reactions** at the bottom (Figure 5-37). Because "redundant" implies there is an existing RPMS entry, the item will most often have an RPMS action and a clinical document action listed.

Reconciled Adverse Reactions							
		Add Allergy	Accept Adver	se Reactions	Cancel		
Causative Agent	Event	Symp	toms	Action			
ASPIRIN RELATED MEDICATIONS	DRUG ALLERGY 416098002	ANXI	ETY	RPMS: Rev Action	iewed, No		
CODEINE	DRUG ALLERGY 416098002	NAUS	EA, ANXIETY	RPMS: Rev Action   CC Add, Redu	iewed, No DA: Do Not ndant		
				Auu, Keuu	iudiit		

Figure 5-37: Reconciled Adverse Reactions section showing adverse reaction with action CCDA: Do not add, redundant

# 5.5.2.3 CCDA: Do Not Add, Not Clinically Significant

Selecting the **Do not add, not clinically significant** option marks the reaction in the Reconciled Adverse Reactions at the bottom. See Figure 5-38.

(	Reconciled Adverse Reactions								
			Add Allergy	Accept Adverse F	Reactions	Cancel			
	Causative Agent	Event	Sy	mptoms	Action				
	RASPBERRIES	Food alle (disorder)	rgy FA )	CE FLUSHED	RPMS: Revi Action   CCI	ewed, No DA: Do			
					not add, no clinically sig	nt gnificant	•		

Figure 5-38: Reconciled Adverse Reactions section showing reaction with CCDA: Do not add, not clinically significant

# 5.5.2.4 View Details

Selecting the View Details option will display the same details as when using the plus sign, but in a new window (Figure 5-39). Additionally, if there is a matching reaction in the RPMS section, that reaction will also display with its details.

Detai	ls				_		×
Patient: D	emo,Patient   HR#: 111						
	RPMS			Clinical Do	ocument		
Causativ	Details		Causative	Details			
CODEINE	Causative Agent: Event: Signs/Symptoms: Drug Classes: Ingredients: Originated: Originated Date: Verified: Observed/Historical: Source: Last Modified:	CODEINE DRUG ALLER( NAUSEA, AN) OPIOID ANAI CODEINE; R: Jan 02, 20: No Historical EXTERNAL 5( JAN 02, 20:	CODEINE	Causative Age Reaction: Status: Drug Code: Drug Code Sys Code: Code System: Code System I Effective Tin Source:	ent: stem Name Name: me:	C( N A 2 : R: 4 : 2 : 1 : 1	ODEINE AUSEA CTIVE 670 xNorm 1609800 .16.840 NOMED C 2/31/20 ndian H
					OK	(	Cancel

Figure 5-39: Details window for the CIR Tool Clinical Document adverse reaction and corresponding RPMS adverse reaction

Right-clicking on the reaction from the details window will give the same actions as are available on the main window, except for **View Details**.

		Clinical Document								
	Causative									
Y .II .GI .Nc .S/	CODEINE	Causative Agent Reaction: Status: Drug Code: Drug Code Syste Code: Code System: Code System Nam	t: CODEINE NAUSEA ACTIVE 2670 em Name: RxNorm 41609800 2.16.840 me: SNOMED C							
u	Add			3 a						
8.	CCDA	CCDA: Do not add, redundant								
CCDA: Do not add, not clinically significant										
			OK	Cancel						

Figure 5-40: The context menu actions for the Clinical Document adverse reaction detail window

# 5.5.3 Review the Reconciled Items

Once all the adverse reactions are reconciled, you may review the items and the actions taken in the **Reconciled Adverse Reactions** section at the bottom of the main **CIR Tool** window. Each item from RPMS and each item from the clinical document that had an action taken on it will be listed, along with the Event type and Symptoms.

(	Reconciled Adverse Reactions	5			
			Add Allergy A	Accept Adverse Reactions	Cancel
Iſ	Causative Agent	Event	Symptoms	Action	
	PENICILLIN G BENZ 600000 SYRINGE	DRUG ALLERGY(0)	HIVES	RPMS: Reviewed, No Action	CCDA: Add
	ASPIRIN RELATED MEDICATIONS	DRUG ALLERGY 416098002	ANXIETY	RPMS: Reviewed, No Action	1
	PEANUT BUTTER; UNII: QE1QX6B99R	FOOD ALLERGY 414285001	ANXIETY	RPMS: Reviewed, No Action	1
	CODEINE	DRUG ALLERGY 416098002	NAUSEA, ANXIETY	RPMS: Reviewed, No Action Not Add, Redundant	CCDA: Do

Figure 5-41: The Reconciled Adverse Reactions section of the CIR Tool with various actions

# 5.5.3.1 Add Allergy

If needed, you may add a completely new allergy from this section by clicking the **Add Allergy** button. Clicking this button opens the **Add Adverse Reaction** window (Figure 5-42). You may search for a Causative Agent and complete the remaining information as usual.

Add Adverse Reaction		_	
Causative Agent:			Search
Nature of Reaction:			v
Event Code:			v
Source of Information:			v
Available	Selected		
Source:			~
Imprecise Date Date/Time:	04/23/2020 18:01		
Comments:			
		ОК	Cancel

Figure 5-42: The CIR Tool Add Adverse Reaction window

#### 5.5.3.2 Accept Adverse Reactions

Until the reconciled items are accepted, no changes are made to the record. To accept all the reconciled adverse reaction information and not the problem and medication information, click **Accept Adverse Reactions**. This is generally only used if you are only reconciling adverse reactions. If you reconciled other items, click the **Accept All** button (see Section 5.7). After clicking the **Accept** button, the order check system will be invoked and will check the current medication list. See Figure 5-43.

Adverse Reaction Order Checking - So.	–		×		
Duplicate order: ASPIRIN 325MG TAB 325M TABLET BY MOUTH ONCE A DAY [PENDING	MG TAKE ONE G]	(1)	^		
Previous adverse reaction to: ASPIRIN (LOC (5/1/17@08:17) (ASPIRIN 325MG TAB 325) TABLET BY MOUTH ONCE A DAY [PENDING	CAL) Reac: AN MG TAKE ON G])	XIETY E (1)			
SIGNIFICANT drug-drug interaction: ACETA	MINOPHEN 8	& ASPIRIN	V		
(1) MG BY MOUTH ONCE FOR PAIN ++ [P	ENDING])	KE ONE			
Duplicate order: ASPIRIN 325MG TAB 325M TABLET BY MOUTH ONCE A DAY [PENDING	MG TAKE ONE G]	(1)			
Previous adverse reaction to: ASPIRIN (LOC (5/1/17@08:17) (ASPIRIN 325MG TAB 3251 TABLET BY MOUTH ONCE A DAY [PENDING	CAL) Reac: AN MG TAKE ON G])	XIETY E (1)			
SIGNIFICANT drug-drug interaction: ACETAMINOPHEN & ASPIRIN (HYDROCODONE/APAP 5/325MG U.D. PREPACK TAB TAKE ONE (1) MG BY MOUTH ONCE FOR PAIN ++ [PENDING])					
Duplicate order: ACARBOSE TAB 50MG TAI MOUTH THREE TIMES A DAY WITH FIRST B DIABETES [ACTIVE]	KE TWO (2) T/ ITE OF EACH	ABLETS BY MEAL FO	/ R		
	OK	Canc	el		

Figure 5-43: The Adverse Reaction Order Checking window

Click **OK**. The **Review/Sign Changes** window displays (Figure 5-44). The reconciled items will display along with any other items needing signature.

Review/Sign Changes for Demo,Patient							
Signature will be applied to checked items All Orders Except Controlled Substance Orders							
<ul> <li>CIR Adverse Reaction Reconciliation</li> <li>ASPIRIN RELATED MEDICATIONS: RPMS: Reviewed, No Action</li> <li>CODEINE: RPMS: Reviewed, No Action</li> <li>PEANUT BUTTER; UNII: QE1QX6B99R: RPMS: Reviewed, No A</li> <li>PENICILLIN G BENZ 600000 SYRINGE: RPMS: Reviewed, No A</li> <li>ProblemList Care Plan Instruction</li> <li>Add Care Plan</li> </ul>	2						
✓ Add Care Plan       ProblemList Goal Note       ✓							
Electronic Signature Code:  I I If processing Surescripts, signature will be applied after action selected.  Don't Sign Cancel							

Figure 5-44: The Review/Sign Changes window with the CIR Adverse Reaction Reconciliation items

The CIR Tool information for Adverse Reactions will reset and the CCDA document will reflect the reconciliation type and date.

# 5.5.3.3 Cancel

If you do not wish to complete the reconciliation, of if you wish to undo your changes, click the **Cancel** button. This will remove all of the previously selected actions for the Adverse Reactions.

# 5.6 Reconcile Medications

Clicking the **Medications** tab will display the medications recorded in the RPMS Pharmacy package in the left pane, and any medications present in the selected clinical document or documents in the right pane.

Users can sort each pane by any of the column headers. Click the plus sign next to any given medication in either pane to view the medication details. Right-click a medication to see the context menu actions available. The context menu options are described in the following sections.

P	roblen	ns Adverse Rea	actions Med	lications								
	RPMS								Clir	nical Docum	ent	
Т	Тур	Medication	Description	Status	Last Date			Medicatio	Descriptio	Status	Source	Last Date
	- OP	ASPIRIN 325MG TABLET	TAKE ONE TABLET BY MOUTH ONCE A	PENDING	10/23/2017	~	[	ASPIRIN 300 MG TABLET	300 MG TABLET, ORAL	ACTIVE	TEST DOCTOR, M.D.	6/10/2014
	MOUTH ONCE A DAY         Schedule:       QDAY         Sig:       TAKE ONE TABLET BY MOL         Other Instructions:       TAKE ONE TABLET ORAL F         Quantity:       30         Refills Remaining:       0         Start Date:       10/23/17         Status:       PENDING         Reconciled On:       JAN 05, 2018@10:16:57							Sig: Status: Code: Source: Route: Code Syst Last Fil Start Dat Stop Date	tem Name: led: te: e:	300 MG ACTIVE 1191 TEST D ORAL RXNORM 6/10/20 6/10/20	TABLET, DCTOR, M. 014 014 014	D.
Г		ASPIRIN 325MG	TAKE ONE	PENDING	10/23/2017			LIDEX	0.05% GEL,	ACTIVE	TEST	12/19/2017

Figure 5-45: A portion of the CIR Tool is shown with medication details showing

# 5.6.1 RPMS Medications

For RPMS medications, context menu actions include Change; Discontinue; Reviewed, No Action; Renew; and View Details.

Problems Adverse Read			ctions	Med	lications			
	Тур	М	edicat	ion	Descri	ption	Status	Last Date
					FIRST 0	DITE		
	OP ASPIRIN 325MG				TAKE C	DNE F RV	PENDING	10/23/2017
+				Change	2			
		Discontir						
	OP	A:		Review	ved, No Action			10/23/2017
+		ΤA		Renew				
View Details								
		[ '			DAY			
		AT	ODV/A	TATIAL	TAKE	NNE	DENIDING	2/12/2019

Figure 5-46: A portion of the CIR Tool with context menu actions for RPMS medications

# 5.6.1.1 Change

Selecting the **Change** option displays the **Edit Medication** window (Figure 5-47). In this window, you may change all fields except the medication.

Edit Medication		_		
ASPIRIN 325MG TAB			Change	
		Pt Wt on 4/14/2	015 150 lb (68 kg	g)
Dosage Campley				
Dosage	Route	Schedule		
325MG	ORAL	QDAY	PRI	N
325MG	ORAL PO	3XW	^	
650MG	ORAL	5XD		11
		AC		
		AC&HS		
		NUTR (201)	*	
Patient Instructions				
Days Supply Qty (TAB) Refills Clinica	al Indication	Chronic Med	Priority	
30 * 30 * 11 * Diabe	etes mellitus test text   E11.	9 ∨ ✓ Dispense as Written	ROUTINE ~	,
Pick Up			Discharge	
○ Clinic ○ Mail ● Window ○ Outside Pharmac	:y - eRx 🔘 Outside Pharma	icy - Print	Medicatio	n
Notes to Pharmacist:				
ASPIRIN 325MG TABLET			ADR's	
TAKE 1 (ONE) TABLET BY MOUTH ONCE A DAY		WEEL DOWN	Accept Order	
Quantity: 30 Days Supply: 30 Ketills: 11 Chronic Med Diabetes mellitus test text	ication: NO Dispense as Wr	tten: YES Indication:	Accept order	
			Cancel	

Figure 5-47: The CIR Tool Edit Medication window example with prepopulated information

#### 5.6.1.2 Discontinue

Selecting **Discontinue** opens the **Discontinue** / **Cancel Orders** window. This window displays the selected order information at the top and potential reasons at the bottom. You may select an appropriate reason and the click **OK** to discontinue the order.

Discontinue / Cancel Orders	-			×
The following order(s) will be disconti	nued:			
Order				
ASPIRIN 325MG TABLET				
Quantity: 30 Days: 0 Refills: 0 Chronic Me Indication: E11.9~Diabetes mellitus   test	d: NO Dispe text	ense a	as Wri	itten: NO
Select a reason:				
Discontinued by Requesting Physician				
Duplicate Order				
Entered in error				
Incorrect/Obsolete test requested				
Obsolete Order	OK		Ca	ancel
Treatment Complete				incer

Figure 5-48: The CIR Tool Discontinue/Cancel Orders window with order details and reason

#### 5.6.1.3 Reviewed, No Action

Selecting the **Reviewed**, **No Action** option marks the item in the **Reconciled** section at the bottom. For ease of documentation, this action is the default for all RPMS medications, so the user only needs to select this if some other action was selected first and the user wishes to go back to the **Reviewed**, **No Action** option.

(	Reconciled Medications							
	Add Outside Medie	cation Add OP N	<b>Nedication</b>	Aco	ept Meds	Cancel		
Γ	Medication	Description	Statu	s i	Action			
	ASPIRIN 325MG TABLET	TAKE ONE TABLET	BY PEND	ING	RPMS: Revie	wed, No	$\sim$	
		MOUTH ONCE A D	DAY		Action			

Figure 5-49: Reconciled Medications in the CIR Tool with Aspirin marked RPMS: Reviewed, No Action

#### 5.6.1.4 Renew

**Note:** The **Renew** function within the CIR Tool is currently experiencing a problem with accepting the order. This will be fixed in the next patch. For now, users should renew medication orders outside of the CIR Tool. The instructions below are presented for future reference. Selecting the **Renew** option opens the **Order Details** window where the user can review the order and select a value for the **Clinical Indication** field.



Figure 5-50: The Order Details with the Clinical Indication menu

Once the user selects a value for the **Clinical Indication** field, the **Renew Order** window displays. You may adjust the number of refills and pick up location within limits but may not edit any other field using the renew function.

-		_	$\Box$ ×
ACARBOSE TAB			Change
		Pt Wt on 4/14/201	5 150 lb (68 kg)
Dosage Complex			
Dosage	Route	Schedule	
100MG	ORAL	TID	PRN
100MG	ORAL	3XW	~
50MG		5XD	
50MG		AC	
100MG		AC&HS	
		NCH2 (SCI)	~
Patient Instructions WITH FIRST BITE Days Supply Qty (TAB) Refills	Clinical Indica	tion Chronic Med P	riority
		Written	~
Pick Up		Written	Discharge
Pick Up O Clinic O Mail 🖲 Window O Ou	tside Pharmacy - eRx	Written	Discharge Medication
Pick Up O Clinic O Mail O Window O Ou Notes to Pharmacist:	tside Pharmacy - eRx	Written	Discharge Medication
Pick Up O Clinic O Mail O Window O Ou Notes to Pharmacist:	tside Pharmacy - eRx	Written	Discharge Medication

Figure 5-51: The CIR Tool Renew Order window with the Refills and Pick Up active

#### 5.6.1.5 View Details

Selecting **View Details** will display the same details as when using the plus sign, but in a new window. Additionally, if there is a matching medication in the clinical document section, that medication will also display with its details.

Oetails						
Patient: Demo,Patient   HR#: 111						
		RPMS				
Medication	Details		Medica			
ACARBOSE TAB	Prescription #: Prescriber: Sig: Days Supply: Quantity: Last Filled: Refills Remaining: Filled: Pharmacist: Start Date: Start Date: Status: RXNorm Code:	1500133 DEMO,DOCTOR D DO TAKE TWO (2) TABLETS BY MOUTH THREE 30 4/23/20 11 4/23/20 (Window) released 4/23/20 4/23/20 4/24/21 ACTIVE 199149				

Figure 5-52: A portion of the Details window for medications in CIR Tool

Right-clicking on the medication from the details window will give the same actions as are available on the main window, except for **View Details**.

Oetails							
Patient: Demo,Patient   HR#: 111							
		RPMS					
Medication	Details						
ACARBOSE TAB	Prescription #: Prescriber: Sig: Days Supply: Quantity: Last Filled: Refills Remainin Filled: Pharmacist: Start Date: Start Date: Status: RXNorm Code:	1500133 DEMO, DOCTOR D DO TAKE TWO (2) TABLETS BY MOUTH 30 180 4/23/20 ng: 11 4/23/20 (Window) released 4/2 Change Discontinue Reviewed, No Action Renew					

Figure 5-53: Context menu actions on medication Details window in CIR Tool

# 5.6.2 Clinical Document Medications

For Clinical Document medications, context menu actions include Add Outside; Add OP; Do Not Add, Discontinued; Do Not Add, Redundant; and View Details.

	CI	inical Docum	ent
edication	Description	Status	Source
IOXAPINE 25 5 TABLET	25 MG TABLET, ORAL	ACTIVE	TEST DOCTOR M.D.
PIRIN 300 MG	300 MG TABLET,	ACTIVE	TEST DOCTOR M.D.
Add Outs Add OP	side		TEST DOCTOR M.D.
Do Not A Do Not A View Det		TEST DOCTOR M.D.	
	edication 1OXAPINE 25 5 TABLET PIRIN 300 MG Add Outs Add OP Do Not A Do Not A View Det	edication         Description           IOXAPINE 25         25 MG TABLET, ORAL           5 TABLET         ORAL           PIRIN 300 MG         300 MG TABLET,           Add Outside         Add OP           Do Not Add, Discontinued         Do Not Add, Redundant           View Details         View Details	Instruction     Description     Status       10XAPINE 25     25 MG TABLET, ORAL     ACTIVE       91RIN 300 MG     300 MG TABLET, Add Outside     ACTIVE       Add Outside     Add OP       Do Not Add, Discontinued     Do Not Add, Redundant       View Details     View Details

Figure 5-54: Context menu actions for Clinical Document medications

# 5.6.2.1 Add Outside

Selecting Add Outside opens the Add Non-VA Medication window. This will document the medication in the medication management component of the EHR but will not create an order to be filled by a pharmacy. Only the medication is required here, but you should add as much detail as is available.

If the **Accept Order** button is not active, you may need to change the medication. The initial search will use the exact term used in the clinical document, but this is often too precise for the RPMS look-up function. Searching for a more general term is usually more successful. For example, if the clinical document lists a medication as Aspirin 300 mg tablet, and only the 325 mg tablet is available in the local system, you may need to just search for "Aspirin" to find the correct item.

Add Non-VA Medication			_		×
ASPIRIN 300 MG TABLET				Cha	inge
			Pt Wt on 4/14/2	015 150 lb	(68 kg)
Dosage	Route		Schedule		_
					PRN
			3XW		$\sim$
			5XD		
			AC		
			AC&HS		
			NCH2 (22)		~
Comments:					
Statement/Explanation		Hom	ne Medication Lis	st Source	
Outside medication not recommended by	v provider.	0 F	Patient		^
Outside medication recommended by pro	ovider.	04	A list the patient	may have	
Patient buvs OTC/Herbal product without	medical advice.	0	Medications then	nselves	
Medication prescribed by another provide	er.	0	riend		
		OF	amily member		
		0	Medical record		
		0	Patient's pharma	cy	
		0	Patients primary	care physic	ian 🗸
Medication Reason:					
Location of Medication					
O Home O Hospital O Other					
Start Date: Last Dose Take	en:				
ASPIRIN 300 MG TABLET				Accept (	Order
				Cano	el

Figure 5-55: The CIR Tool Add Non-VA Medication window

### 5.6.2.2 Add OP

Selecting **Add OP** opens the **Add Outpatient Medication** window. The order must be completed in the same way an order would be completed outside the CIR Tool.

Add Outpatient Medication		_	
ACETAMINOPHEN 325MG TAB (TYLENOL)			Change
		Pt Wt on 4/14/20	)15 150 lb (68 kg)
Dosage Complex			
Dosage	Route	Schedule	
325MG	ORAL PO	3XW	
325MG	ORAL PO	3XW	^
325MG	ORAL	5XD	
650MG		AC	
650MG		AC&HS	
		VUR5 (221)	×
Patient Instructions FOR PAIN Days Supply Qty (TAB) Refills 30  Pick Up Clinic Mail  Window Outside Ph Notes to Pharmacist:	Clinical Indication C D D N narmacy - eRx O Outsic	hronic Med ispense as /ritten Je Pharmacy - Print	Priority ROUTINE ~ Discharge Medication
ACETAMINOPHEN 325MG TAB (TYLENOL) TAKE 1 (ONE) TABLET BY MOUTH 3 TIMES A W Quantity: 0 Days Supply: 30 Refills: 0 Chronic M	/EEK FOR PAIN Medication: NO Dispense	e as Written: NO	ADR's Accept Order Cancel

Figure 5-56: The CIR Tool Add Outpatient Medication window

If the medication cannot be appropriately matched to an existing entry in the local system, the **Select Medication** warning will display, followed by the **Search Medications** window.

Select Medication	×
The medication 'ASPIRIN 300 MG TABLET' could not be located by its RxNorm code.	
Please select the correct medication manually	
OK	1
	4

Figure 5-57: The CIR Tool Select Medication window

Search Medications	_		×
ASPIRIN 300 MG TABLET			
		0	k

Figure 5-58: The CIR Tool Search Medications window

# 5.6.2.3 Do Not Add, Discontinued

Selecting the **Do Not Add, Discontinued** option marks the medication in the **Reconciled Medications** section at the bottom.

(	Reconciled Medications								
	Add Outside Medic	ation	Add OP N	ledicatio	n	Accept Meds	Cancel		
Γ	Medication	Descri	ption	Status	Ac	tion:			
	LIDEX 0.05% GEL	0.05% TOPICA	GEL, AL	ACTIVE	CC Dis	DA: Do Not Add, scontinued		^	
_					_				

Figure 5-59: Reconciled Medications section with CCDA: Do Not Add, Discontinued

#### 5.6.2.4 Do Not Add, Redundant

Selecting the **Do Not Add, Redundant** option marks the medication in the **Reconciled Medications** section at the bottom.

(	Reconciled Medications							
	Add Outside Medio	ation Add OP M	ledicatio	n Accept Meds	Cancel			
IГ	Medication	Description	Status	Action				

Figure 5-60: Reconciled Medications section showing action CCDA: Do Not Add, Redundant

#### 5.6.2.5 View Details

Selecting the **View Details** option will display the same details as when using the plus sign, but in a new window. Additionally, if there is a matching medication in the RPMS section, that medication will also display with its details.

Details			_		×
Patient: Demo,Patient   I	HR#: 111				
RPMS		Clinical Docume	nt		
Medication Details	Medication LIDEX 0.05% GEL	Details Medication: Sig: Status: Code: Source: Route: Code System Name: Last Filled: Start Date: Stop Date:	LIDEX 0. 0.05% GE ACTIVE 1160817 TEST DOC TOPICAL RXNORM 12/19/20 12/19/20 12/19/20	05% GE L, TOP TOR, M 17 17 17	L ICAL .D.

Figure 5-61: A portion of the Details window for medications in CIR Tool

Right-clicking on the medication from the details window will give the same actions as are available on the main window, except for **View Details**.

	c	linical Docum	ent	
Medication	Details			
LIDEX 0.05% GEL	Medicat Sig: Status: Co So Ro Co La St St	tion: Add Outside Add OP Do Not Add, Do Not Add,	LIDEX 0.059 0.05% GEL, ACTIVE Discontinued Redundant	6 GEL TOPICAL D.

Figure 5-62: Context menu options on Medication Details window in CIR Tool

# 5.6.3 CIR Tool Dose Validation

The CIR Tool medication ordering functions will have the same validation as occurs in the normal ordering process. This validation will apply to the same type of medication ordering, including outpatient, unit dose, intravenous, and non-VA medications.

The CIR Tool ordering may be done as normal. The CIR Tool allows a user to add a medication to the Outpatient (OP) medications or the non-VA (Outside) medications only. These order dialogs will have the same validation in the same fields as described above for normal ordering.

#### 5.6.3.1 Add Outside

The **Add Outside** option will have validation on the dosage field for leading and trailing zeros. There is no validation for metric dosing units for oral liquid medications.

✓	Indian Health Service BCCD - INDIAN HOSPITAL (8	046)	05/05/
	Add Non-VA Medication		_
<u> </u>	ACETAMINOPHEN 325MG TAB (TYLENOL)		
			Pt Wt on 4/14/2
Problen	Dosage	Route	Schedule
	.5	ORAL	3XW
Тур	325MG	ORAL PO	3XW
	nable to Save Order This order cannot be saved for the fo	llowing reason(s):	×
Medi	A fractional number .5 must have a r	number to the left	of the decimal. s
		ונ זוובטוכמו מטעוכב.	

Figure 5-63: Unable to Save Order message for leading zero in Dosage field for CIR Add Outside option

Indian Health Service BCCD	-INDIAN HOSPITAL	
Add Non-VA Medication		
ACETAMINOPHEN 325MG TAB (TYLENOL)		
		Pt W
Dosage	Route	Sche
1.0	ORAL	3XV
325MG	ORAL PO	3X\
Unable to Save Order		imes ki
		c
This order connet he saved for the	following reason(s)	c
	rollowing reason(s):	C C
A fractional number 1.0 may not ha	ave a trailing zero.	
		1
		_ er
	ОК	t
Patient buys OTC/Herbal broduct without	medical advice.	wiedi

Figure 5-64: Unable to Save Order message for trailing zero in Dosage field for CIR Add Outside option

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#### 5.6.3.2 Add OP

The **Add OP** option will have validation on the **Dosage** field and the quantity (**Qty**) field for leading and trailing zeros. In addition, when the medication is an oral liquid, there will be validation on the **Dosage** field for metric units.







Figure 5-66: Unable to Save Order message for trailing zero in Dosage field for CIR Add OP option





Days Supply     Qty (TAB)     Refills     Clinical Indication       30     10.0     0     Low back pain   M54.	5 ~
Pi Unable to Save Order	×
No This order cannot be saved for the following reason(s):	
A fractional number (10.0) may not have a trailing zero	
T/ Q	EI V

Figure 5-68: Unable to Save Order message for trailing zero in Qty field for CIR Add OP option

51	icor indge	AthenaHealth_Summary of Care R	ecor	d_R2.1	athenahealth		
F	r r	CCDA demo grandma			Indian Health	Service	RC
	I Add Outpat	ient Medication					
0	PEDIPROFEN						
llN ig:	Dosage Com	plex					
C	Dosage			Route			
Ig:	1 TEASPOONFU	JL		ORAL			
	1 TEASPOONF	UL	$\sim$	ORAL	L		
	Unable to Sa	ve Order 'his order cannot be saved for the fo	llowi	ng reas	son(s):	×	
		Josage units for Oral Liquids must be	e star	ndard r	netric units		ed
IP M(	Pick Up				ОК		s

Figure 5-69: Unable to Save Order warning for oral liquid metric dose for CIR Add OP option

# 5.6.4 Review the Reconciled Items

Once all the medications are reconciled, you may review the items and actions taken in the **Reconciled Medications** section at the bottom of the main **CIR Tool** window. Each item from RPMS and each item from the clinical document that had an action taken on it will be listed, along with the **Description** and **Status**. See Figure 5-70.

Reconciled Medicatio	ns			
	Add Outside Medication	Add OP Medica	ation Accept Meds	Cancel
Medication	Description	Status	Action	
INSULIN GLARGINE SOLOSTAR PEN INJ	INJECT 40 UNITS UNDER THE SKIN DAILY FOR DIABETES	PENDING	CCDA: Add OP	
INSULIN ASPART INJ	INJECT UNDER THE SKIN 3 TIMES A WEEK	PENDING	CCDA: Add Outside	
ASPIRIN 81 MG ENTERIC COATED TABLET	TAKE ONE (1) TABLET BY MOUTH OF A DAY	NCE ACTIVE	CCDA: Do Not Add, Discontinued	
ATORVASTATIN 40 MG ORAL TABLET	TAKE ONE (1) TABLET BY MOUTH OI A DAY FOR HIGH CHOLESTEROL -AV GRAPEFRUIT/ GRAPEFRUIT JUICE-	NCE ACTIVE	CCDA: Do Not Add, I	Redundant
INSULIN REG U-100 INJ PREPACK	INJECT 5ML UNDER THE SKIN TWO TIMES PER DAY 30 MINUTES	PENDING	RPMS: Reviewed, No	Action



#### 5.6.4.1 Add Outside Medication

If needed, you may add a completely new outside medication from this section by clicking the **Add Outside Medication** button to open the **Add Non-VA Medication** window. You may search for a medication and complete the remaining information as usual.

Add Non-VA Medication			_		×
			Pt Wt on 4/14/20	Cha 15 150 lb (	nge (68 kg)
Dosage	Route		Schedule		
					PRN
			3XW		$\sim$
			5XD		
			AC		
			AC&HS		
			NCH2 (22)		~
Comments:					
Statement/Explanation		Hom	e Medication List	Source	
Outside medication not recommended by	v provider.	0	Patient		^
Outside medication recommended by pre-	ovider.	$^{\circ}$	A list the patient m	nay have	
Patient buvs OTC/Herbal product without	medical advice.	01	Medications thems	selves	
Medication prescribed by another provid	er.	0	riend		
		0	amily member		
		01	Medical record		
		0	Patient's pharmacy	1	
		0	Patients primary ca	are physici	an ∨
Medication Reason:					
Cocation of Medication ○ Home ○ Hospital ○ Other					
Start Date: Last Dose Tak	en:				
				Accept C	Order
				-	
				Canc	ei

Figure 5-71: The CIR Tool Add Non-VA Medication window

#### 5.6.4.2 Add OP Medication

If needed, you may add a completely new outpatient medication from this section by clicking on the **Add OP Medication** button. Clicking this button opens the **Add Outpatient Medication** window. You may search for a medication and complete the remaining information as usual.

Add Outpatient Medication		_		×
			Cł	hange
		Pt Wt on 4/14/2	015 150	b (68 kg)
Dosage Complex	Deute	Cabadula		
Dosage	Koute	Schedule	[	PRN
		3XW		~
		5XD		
		AC		
		AC&HS		
Patient Instructions				
Days Supply Qty (TAB) Refills	Clinical Indication	Chronic Med Dispense as Written	Priority	v charge
Notes to Pharmacist:				
Quantity: 0 Days Supply: 0 Refills: 0 Chronic	Medication: NO Dispens	e as Written: NO	AD Accept	R's t Order
			Car	icei

Figure 5-72: The CIR Tool Add Outpatient Medication window

#### 5.6.4.3 Accept Meds

Until the reconciled items are accepted, no changes are made to the record. To accept all the reconciled medication information and not the problem and adverse reaction information, click the **Accept Meds** button. This is generally only used if you are only reconciling medications. If you reconciled other items, use the **Accept All** button (see Section 5.7). When the user clicks the **Accept** button, the **Review/Sign Changes** window displays. The reconciled items display along with any other items needing signature.

Review/Sign Changes for Demo,Patient	
Signature will be applied to checked items All Orders Except Controlled Substance Orders	
Chart Review	<
Problem List - Reviewed	
CIR Reconciled Medications	
ACARBOSE 50MG TAB: RPMS: Reviewed, No Action	
ASPIRIN 325MG TABLET: RPMS: Reviewed, No Action	
ASPIRIN 325MG TABLET: RPMS: Reviewed, No Action	
ATORVASTATIN 10MG TAB: RPMS: Reviewed, No Action	
ATORVASTATIN 40MG TAB: RPMS: Reviewed, No Action	
	_
Electronic Signature Code:	
If processing Surescripts, signature will be applied after action selected. Don't Sign Cancel	

Figure 5-73: The Review/Sign Changes window with the CIR Medication Reconciliation items

The CIR Tool information for medications will reset and the CCDA document will reflect the reconciliation type and date.

# 5.6.4.4 Cancel

If you do not wish to complete the reconciliation, of if you wish to undo your changes, click the **Cancel** button. This will remove all of the previously selected actions for the Medications.

# 5.7 Accept All

If you reconciled items in more than one category, click the **Accept All** button when you are finished. Clicking this will invoke the **Order Check** functions.

Adverse Reaction Order Checking - So.	–		×
Duplicate order: ASPIRIN 325MG TAB 325M TABLET BY MOUTH ONCE A DAY [PENDING	MG TAKE ONE G]	(1)	~
Previous adverse reaction to: ASPIRIN (LOC (5/1/17@08:17) (ASPIRIN 325MG TAB 325I TABLET BY MOUTH ONCE A DAY [PENDING	AL) Reac: AN MG TAKE ONI G])	XIETY E (1)	
SIGNIFICANT drug-drug interaction: ACETA (HYDROCODONE/APAP 5/325MG U.D. PRE (1) MG BY MOUTH ONCE FOR PAIN ++ [PI	MINOPHEN & PACK TAB TA ENDING])	& ASPIRIN KE ONE	V
Duplicate order: ASPIRIN 325MG TAB 325M TABLET BY MOUTH ONCE A DAY [PENDING	MG TAKE ONE G]	(1)	
Previous adverse reaction to: ASPIRIN (LOC (5/1/17@08:17) (ASPIRIN 325MG TAB 325I TABLET BY MOUTH ONCE A DAY [PENDING	AL) Reac: AN MG TAKE ONI G])	XIETY E (1)	
SIGNIFICANT drug-drug interaction: ACETA (HYDROCODONE/APAP 5/325MG U.D. PRE (1) MG BY MOUTH ONCE FOR PAIN ++ [PI	MINOPHEN ( PACK TAB TA ENDING])	& ASPIRIN KE ONE	N
Duplicate order: ACARBOSE TAB 50MG TAI MOUTH THREE TIMES A DAY WITH FIRST B DIABETES [ACTIVE]	KE TWO (2) T/ ITE OF EACH	ABLETS BY MEAL FO	( R
	OK	Canc	el

Figure 5-74: The Adverse Reaction Order Checking window

Click **OK**. The **Review/Sign Changes** window displays. The reconciled items will display along with any other items needing signature.

Review/Sign Changes for Demo,Patient
Signature will be applied to checked items All Orders Except Controlled Substance Orders
Chart Review
Medications - Reviewed
CIR Adverse Reaction Reconciliation
ASPIRIN RELATED MEDICATIONS: RPMS: Reviewed, No Action
CODEINE: RPMS: Reviewed, No Action
PEANUT BUTTER; UNII: QE1QX6B99R: RPMS: Reviewed, No Action
PENICILLIN: RPMS: Reviewed, No Action
CIR Reconciled Medications
ACARBOSE 50MG TAB: RPMS: Reviewed, No Action
ASPIRIN 325MG TABLET: RPMS: Reviewed, No Action
ASPIRIN 325MG TABLET: RPMS: Reviewed, No Action
ATORVASTATIN 10MG TAB: RPMS: Reviewed, No Action
ATORVASTATIN 40MG TAB: RPMS: Reviewed, No Action
AZATHIOPRINE 50MG TAB: RPMS: Reviewed, No Action
BENZTRUPINE 2MG TAB: RPMS: Reviewed, No Action
HYDRUCUDUNE/APAP 5/325MG TAB U.D. PREPACK: RPMS: Revie
✓ INSULIN DETEMIR INJ: RPMS: Reviewed, No Action
✓ INSULIN DEC 11 100 INTERPRETATION INSECTION. REMS. Reviewed, P INSULIN DEC 11 100 INTERPRETATION Reviewed, No. Astion
INSULIN REG U-100 INJ PREPACK: RPMS: Reviewed, No Action
INSULIN REGULION INTERACK: RPMS: Reviewed, No Action
METEORMIN 500MG TAR: BPMS: Beviewed No Action
METFORMIN SOOMG TAB: RPMS: Reviewed, No Action
CIB Beconciled Problems
Diabetes mellitus: BPMS: Beviewed, No Action
Asthma: RPMS: Reviewed, No Action
Pregnancy eruption: BPMS: Beviewed No Action
< >
Electronic Signature Code:
If processing Surescripts, signature
will be applied after action selected. Don't Sign Cancel

Figure 5-75: The Review/Sign Changes window with the reconciled items and their actions

The CIR Tool information will reset and each reconciled CCDA document will reflect the reconciliation type and date.

# 5.8 Cancel All

If you do not wish to complete the reconciliation, or if you wish to undo your changes, click the **Cancel All** button. The **Remove All Reconciliation Changes** warning will display (Figure 5-76).

Remove All Reconciliation Changes	Х	
Clicking OK will reset all reconciled changes for this patient to the session defaults.		
OK Cancel		

Figure 5-76: The Remove All Reconciliation Changes warning

Clicking **Cancel** on the warning will return you to the CIR Tool with the existing changes intact. Clicking **OK** will remove all of the previously selected actions for **Problems**, **Adverse Reactions**, and **Medications**.
# Appendix A: Rules of Behavior

The Resource and Patient Management (RPMS) system is a United States Department of Health and Human Services (HHS), Indian Health Service (IHS) information system that is *FOR OFFICIAL USE ONLY*. The RPMS system is subject to monitoring; therefore, no expectation of privacy shall be assumed. Individuals found performing unauthorized activities are subject to disciplinary action including criminal prosecution.

All users (Contractors and IHS Employees) of RPMS will be provided a copy of the Rules of Behavior (ROB) and must acknowledge that they have received and read them prior to being granted access to a RPMS system, in accordance IHS policy.

- For a listing of general ROB for all users, see the most recent edition of *IHS General User Security Handbook* (SOP 06-11a).
- For a listing of system administrators/managers rules, see the most recent edition of the *IHS Technical and Managerial Handbook* (SOP 06-11b).

Both documents are available at this IHS Web site: <u>https://home.ihs.gov/security/index.cfm</u>.

**Note:** Users must be logged on to the IHS D1 Intranet to access these documents.

The ROB listed in the following sections are specific to RPMS.

## A.1 All RPMS Users

In addition to these rules, each application may include additional ROB that may be defined within the documentation of that application (e.g., Dental, Pharmacy).

## A.1.1 Access

RPMS users shall

- Only use data for which you have been granted authorization.
- Only give information to personnel who have access authority and have a need to know.
- Always verify a caller's identification and job purpose with your supervisor or the entity provided as employer before providing any type of information system access, sensitive information, or nonpublic agency information.

• Be aware that personal use of information resources is authorized on a limited basis within the provisions *Indian Health Manual* Part 8, "Information Resources Management," Chapter 6, "Limited Personal Use of Information Technology Resources."

RPMS users shall not

- Retrieve information for someone who does not have authority to access the information.
- Access, research, or change any user account, file, directory, table, or record not required to perform their *official* duties.
- Store sensitive files on a PC hard drive, or portable devices or media, if access to the PC or files cannot be physically or technically limited.
- Exceed their authorized access limits in RPMS by changing information or searching databases beyond the responsibilities of their jobs or by divulging information to anyone not authorized to know that information.

## A.1.2 Information Accessibility

RPMS shall restrict access to information based on the type and identity of the user. However, regardless of the type of user, access shall be restricted to the minimum level necessary to perform the job.

RPMS users shall

- Access only those documents they created and those other documents to which they have a valid need-to-know and to which they have specifically granted access through an RPMS application based on their menus (job roles), keys, and FileMan access codes. Some users may be afforded additional privileges based on the functions they perform, such as system administrator or application administrator.
- Acquire a written preauthorization in accordance with IHS polices and procedures prior to interconnection to or transferring data from RPMS.

## A.1.3 Accountability

RPMS users shall

- Behave in an ethical, technically proficient, informed, and trustworthy manner.
- Log out of the system whenever they leave the vicinity of their personal computers (PCs).
- Be alert to threats and vulnerabilities in the security of the system.
- Report all security incidents to their local Information System Security Officer (ISSO)

- Differentiate tasks and functions to ensure that no one person has sole access to or control over important resources.
- Protect all sensitive data entrusted to them as part of their government employment.
- Abide by all Department and Agency policies and procedures and guidelines related to ethics, conduct, behavior, and information technology (IT) information processes.

### A.1.4 Confidentiality

RPMS users shall

- Be aware of the sensitivity of electronic and hard copy information, and protect it accordingly.
- Store hard copy reports/storage media containing confidential information in a locked room or cabinet.
- Erase sensitive data on storage media prior to reusing or disposing of the media.
- Protect all RPMS terminals from public viewing at all times.
- Abide by all Health Insurance Portability and Accountability Act (HIPAA) regulations to ensure patient confidentiality.

RPMS users shall not

- Allow confidential information to remain on the PC screen when someone who is not authorized to that data is in the vicinity.
- Store sensitive files on a portable device or media without encrypting.

#### A.1.5 Integrity

RPMS users shall

- Protect their systems against viruses and similar malicious programs.
- Observe all software license agreements.
- Follow industry standard procedures for maintaining and managing RPMS hardware, operating system software, application software, and/or database software and database tables.
- Comply with all copyright regulations and license agreements associated with RPMS software.

RPMS users shall not

- Violate federal copyright laws.
- Install or use unauthorized software within the system libraries or folders.

• Use freeware, shareware, or public domain software on/with the system without their manager's written permission and without scanning it for viruses first.

#### A.1.6 System Logon

RPMS users shall

- Have a unique User Identification/Account name and password.
- Be granted access based on authenticating the account name and password entered.
- Be locked out of an account after five successive failed login attempts within a specified time period (e.g., one hour).

#### A.1.7 Passwords

RPMS users shall

- Change passwords a minimum of every 90 days.
- Create passwords with a minimum of eight characters.
- If the system allows, use a combination of alpha-numeric characters for passwords, with at least one uppercase letter, one lower case letter, and one number. It is recommended, if possible, that a special character also be used in the password.
- Change vendor-supplied passwords immediately.
- Protect passwords by committing them to memory or store them in a safe place (do not store passwords in login scripts or batch files).
- Change passwords immediately if password has been seen, guessed, or otherwise compromised, and report the compromise or suspected compromise to their ISSO.
- Keep user identifications (IDs) and passwords confidential.

RPMS users shall not

- Use common words found in any dictionary as a password.
- Use obvious readable passwords or passwords that incorporate personal data elements (e.g., user's name, date of birth, address, telephone number, or social security number; names of children or spouses; favorite band, sports team, or automobile; or other personal attributes).
- Share passwords/IDs with anyone or accept the use of another's password/ID, even if offered.
- Reuse passwords. A new password must contain no more than five characters per eight characters from the previous password.
- Post passwords.

- Keep a password list in an obvious place, such as under keyboards, in desk drawers, or in any other location where it might be disclosed.
- Give a password out over the phone.

### A.1.8 Backups

RPMS users shall

- Plan for contingencies such as physical disasters, loss of processing, and disclosure of information by preparing alternate work strategies and system recovery mechanisms.
- Make backups of systems and files on a regular, defined basis.
- If possible, store backups away from the system in a secure environment.

## A.1.9 Reporting

RPMS users shall

- Contact and inform their ISSO that they have identified an IT security incident and begin the reporting process by providing an IT Incident Reporting Form regarding this incident.
- Report security incidents as detailed in the *IHS Incident Handling Guide* (SOP 05-03).

RPMS users shall not

• Assume that someone else has already reported an incident. The risk of an incident going unreported far outweighs the possibility that an incident gets reported more than once.

## A.1.10 Session Timeouts

RPMS system implements system-based timeouts that back users out of a prompt after no more than 5 minutes of inactivity.

RPMS users shall

• Utilize a screen saver with password protection set to suspend operations at no greater than 10 minutes of inactivity. This will prevent inappropriate access and viewing of any material displayed on the screen after some period of inactivity.

## A.1.11 Hardware

RPMS users shall

• Avoid placing system equipment near obvious environmental hazards (e.g., water pipes).

- Keep an inventory of all system equipment.
- Keep records of maintenance/repairs performed on system equipment.

RPMS users shall not

• Eat or drink near system equipment.

### A.1.12 Awareness

RPMS users shall

- Participate in organization-wide security training as required.
- Read and adhere to security information pertaining to system hardware and software.
- Take the annual information security awareness.
- Read all applicable RPMS manuals for the applications used in their jobs.

## A.1.13 Remote Access

Each subscriber organization establishes its own policies for determining which employees may work at home or in other remote workplace locations. Any remote work arrangement should include policies that

- Are in writing.
- Provide authentication of the remote user through the use of ID and password or other acceptable technical means.
- Outline the work requirements and the security safeguards and procedures the employee is expected to follow.
- Ensure adequate storage of files, removal, and nonrecovery of temporary files created in processing sensitive data, virus protection, and intrusion detection, and provide physical security for government equipment and sensitive data.
- Establish mechanisms to back up data created and/or stored at alternate work locations.

Remote RPMS users shall

• Remotely access RPMS through a virtual private network (VPN) whenever possible. Use of direct dial in access must be justified and approved in writing and its use secured in accordance with industry best practices or government procedures.

Remote RPMS users shall not

• Disable any encryption established for network, internet, and Web browser communications.

## A.2 RPMS Developers

RPMS developers shall

- Always be mindful of protecting the confidentiality, availability, and integrity of RPMS when writing or revising code.
- Always follow the IHS RPMS Programming Standards and Conventions (SAC) when developing for RPMS.
- Only access information or code within the namespaces for which they have been assigned as part of their duties.
- Remember that all RPMS code is the property of the U.S. Government, not the developer.
- Not access live production systems without obtaining appropriate written access, and shall only retain that access for the shortest period possible to accomplish the task that requires the access.
- Observe separation of duties policies and procedures to the fullest extent possible.
- Document or comment all changes to any RPMS software at the time the change or update is made. Documentation shall include the programmer's initials, date of change, and reason for the change.
- Use checksums or other integrity mechanism when releasing their certified applications to assure the integrity of the routines within their RPMS applications.
- Follow industry best standards for systems they are assigned to develop or maintain, and abide by all Department and Agency policies and procedures.
- Document and implement security processes whenever available.

RPMS developers shall not

- Write any code that adversely impacts RPMS, such as backdoor access, "Easter eggs," time bombs, or any other malicious code or make inappropriate comments within the code, manuals, or help frames.
- Grant any user or system administrator access to RPMS unless proper documentation is provided.
- Release any sensitive agency or patient information.

## A.3 Privileged Users

Personnel who have significant access to processes and data in RPMS, such as, system security administrators, systems administrators, and database administrators, have added responsibilities to ensure the secure operation of RPMS.

Privileged RPMS users shall

- Verify that any user requesting access to any RPMS system has completed the appropriate access request forms.
- Ensure that government personnel and contractor personnel understand and comply with license requirements. End users, supervisors, and functional managers are ultimately responsible for this compliance.
- Advise the system owner on matters concerning information technology security.
- Assist the system owner in developing security plans, risk assessments, and supporting documentation for the certification and accreditation process.
- Ensure that any changes to RPMS that affect contingency and disaster recovery plans are conveyed to the person responsible for maintaining continuity of operations plans.
- Ensure that adequate physical and administrative safeguards are operational within their areas of responsibility and that access to information and data is restricted to authorized personnel on a need-to-know basis.
- Verify that users have received appropriate security training before allowing access to RPMS.
- Implement applicable security access procedures and mechanisms, incorporate appropriate levels of system auditing, and review audit logs.
- Document and investigate known or suspected security incidents or violations and report them to the ISSO, Chief Information Security Officer (CISO), and systems owner.
- Protect the supervisor, superuser, or system administrator passwords.
- Avoid instances where the same individual has responsibility for several functions (i.e., transaction entry and transaction approval).
- Watch for unscheduled, unusual, and unauthorized programs.
- Help train system users on the appropriate use and security of the system.
- Establish protective controls to ensure the accountability, integrity, confidentiality, and availability of the system.
- Replace passwords when a compromise is suspected. Delete user accounts as quickly as possible from the time that the user is no longer authorized system. Passwords forgotten by their owner should be replaced, not reissued.
- Terminate user accounts when a user transfers or has been terminated. If the user has authority to grant authorizations to others, review these other authorizations. Retrieve any devices used to gain access to the system or equipment. Cancel logon IDs and passwords, and delete or reassign related active and backup files.

- Use a suspend program to prevent an unauthorized user from logging on with the current user's ID if the system is left on and unattended.
- Verify the identity of the user when resetting passwords. This can be done either in person or having the user answer a question that can be compared to one in the administrator's database.
- Shall follow industry best standards for systems they are assigned to, and abide by all Department and Agency policies and procedures.

Privileged RPMS users shall not

- Access any files, records, systems, etc., that are not explicitly needed to perform their duties
- Grant any user or system administrator access to RPMS unless proper documentation is provided.
- Release any sensitive agency or patient information.

## Glossary

#### APSP

The namespace of the IHS modifications to the Outpatient Pharmacy Suite.

#### CIR Tool

The EHR component used to reconcile a patient's problems, adverse reactions, and medications from outside sources.

#### **Clinical Informaticist**

A person who works in Clinical Informatics, a discipline of managing and utilizing patient health information to improve health care. Clinical Informaticist is a general term, and specific disciplines may use more specific terms such as Nurse Informaticist or Pharmacy Informaticist.

#### eRx

Electronic prescribing or an electronic prescription.

#### **Intravenous Medications**

Medications that are administered into a vein. For RPMS, the Pharmacy package that manages these types of medications for patients.

#### Leading Zeros

For the purposes of EHR and RPMS validation, one or more zeros to the left of a decimal point in a positive number that is less than 1. Example: 0.5.

#### Non-VA Medications

Also known as Outside Medications, this is the mechanism for a user to document a patient's herbal, over-the-counter, and home medications that are not prescribed or managed by the site's providers.

#### **Oral Liquid Medications**

A medication that is intended to be taken orally and intended to be in a liquid form at the time of administration. Oral liquids may be dispensed in a nonliquid form and converted to a liquid by the patient or person administering the medication.

#### **Outpatient Medications**

Medications primarily meant to be dispensed or administered to patients who are not admitted to a hospital unit or ward. For RPMS, the Pharmacy package that manages these types of medications for patients.

#### **Outside Medications**

See Non-VA Medications.

#### **Quick Order**

In EHR and RPMS, a medication order template with the majority of the information already filled in to help the provider order a medication quickly.

#### **Trailing Zeros**

For the purposes of this validation, one or more zeros in a decimal number after which no other numbers follow. Example: 5.0.

#### **Unit Dose Medications**

Medications that are specifically packaged in premeasured doses for single use. For RPMS, the Pharmacy package that manages non-IV versions of these types of medications for patients.

# Acronym List

Acronym	Meaning
CAC	Clinical Application Coordinator
CCDA	Consolidated Clinical Document Architecture
CIR	Clinical Information Reconciliation
CISO	Chief Information Security Officer
EHR	Electronic Health Record
HHS	U.S. Department of Health and Human Services
НІМ	Health Information Management
HIPAA	Health Information Portability and Accountability Act
ID	Identification
IHS	Indian Health Service
ISMP	Institute for Safe Medication Practices
ISSO	Information System Security Officer
IT	Information Technology
IV	Intravenous
mL	Milliliter
ONC	Office of the National Coordinator
OP	Outpatient
PC	Personal Computer
POV	Purpose of Visit
QO	Quick Order
ROB	Rules of Behavior
RPMS	Resource and Patient Management System
SAC	Standards and Conventions
SNOMED CT	Systematized Nomenclature of Medicine Clinical Terms
VA	Department of Veterans Affairs
VIC	VistA Imaging Capture
VistA	Veterans Health Information Systems and Technology Architecture
VPN	Virtual Private Network

# **Contact Information**

If you have any questions or comments regarding this distribution, please contact the IHS IT Service Desk.

Phone: (888) 830-7280 (toll free)

- Web: <u>https://www.ihs.gov/itsupport/</u>
- Email: itsupport@ihs.gov