RESOURCE AND PATIENT MANAGEMENT SYSTEM

Electronic Health Record

(EHR)

CIR Tool Addendum to User Manual

Version 1.1 Patch 29
September 2020

Office of Information Technology
Division of Information Technology

Table of Contents

Preface

The CIR Tool in the RPMS EHR has been redeveloped to meet criteria for the 2015 Edition certification.

1.0 Introduction

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.

2.0 CIR Tool Overview

Information used by the CIR Tool 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 setup 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

The main functionality of the CIR Tool includes:

- Display data from two or more sources in a manner that enables the user to view the data and its attributes, including the source and last modification date of the information,
- Allow the user to add or remove data to the Resource and Patient Management System (RPMS) from the outside source,
- Allow the user to review and validate the accuracy of a final set of data elements, and on confirmation update the patient's problem, adverse reaction, and medication lists.

3.0 CIR Tool Button Appearance

The CIR Tool is a button-style component suitable for adding to the header pane portion of the Electronic Health Record (EHR) graphical user interface (GUI) template that exists at most sites. There are no specific properties for the CIR Tool component.

3.1 CIR Tool Icon

The CIR Tool icon (Figure 3-1) 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:

Figure 3-1: The CIR Tool icon appearance when no patient is selected

Once a patient has been selected, the icon will be green if the patient has no CCDA documents to reconcile or if no documents were received for the patient (see Figure 3-2). The number on the icon will represent the number of CCDA documents received:

Figure 3-2: The CIR Tool icon appearance for a patient with no CCDA documents to reconcile or 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 3-3).

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

Hovering the mouse pointer over the CIR Tool icon displays the number of CCDA documents that have already been reconciled as well as the total number of documents (see Figure 3-4).

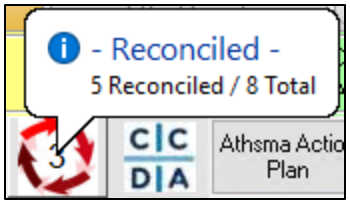

Figure 3-4: Hover text over the CIR Tool icon showing the number of reconciled and the total number of CCDA documents

4.0 CIR Tool Component Orientation

Launch the CIR Tool by clicking on the icon. The tool will launch in a pop-up window over the main EHR window (Figure 4-1). The tool has the following items which will be discussed in more detail in the following sections:

- Visit button
- CCDA Source
- Generated by CCDA pane
- Problems/Adverse Reactions/Medications tabs
- Reconciled Problems/Adverse Reactions/Medications pane
- Accept All button
- Cancel All button

The component will open with the **Reconciled** pane collapsed. The **Generated by CCDA** pane will be empty if the patient does not have any imported CCDA documents. The tabs default to **Problems**. The **Adverse Reactions** and **Medications** tabs will have asterisks until they are selected to review. 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 a column header will sort by that column. Clicking again reverses the sort order. The various panes may be resized by dragging the splitter bar separating the panes. The sections immediately following provide an orientation to the component contents while additional sections further on in this document will walk through the actual reconciliation process.

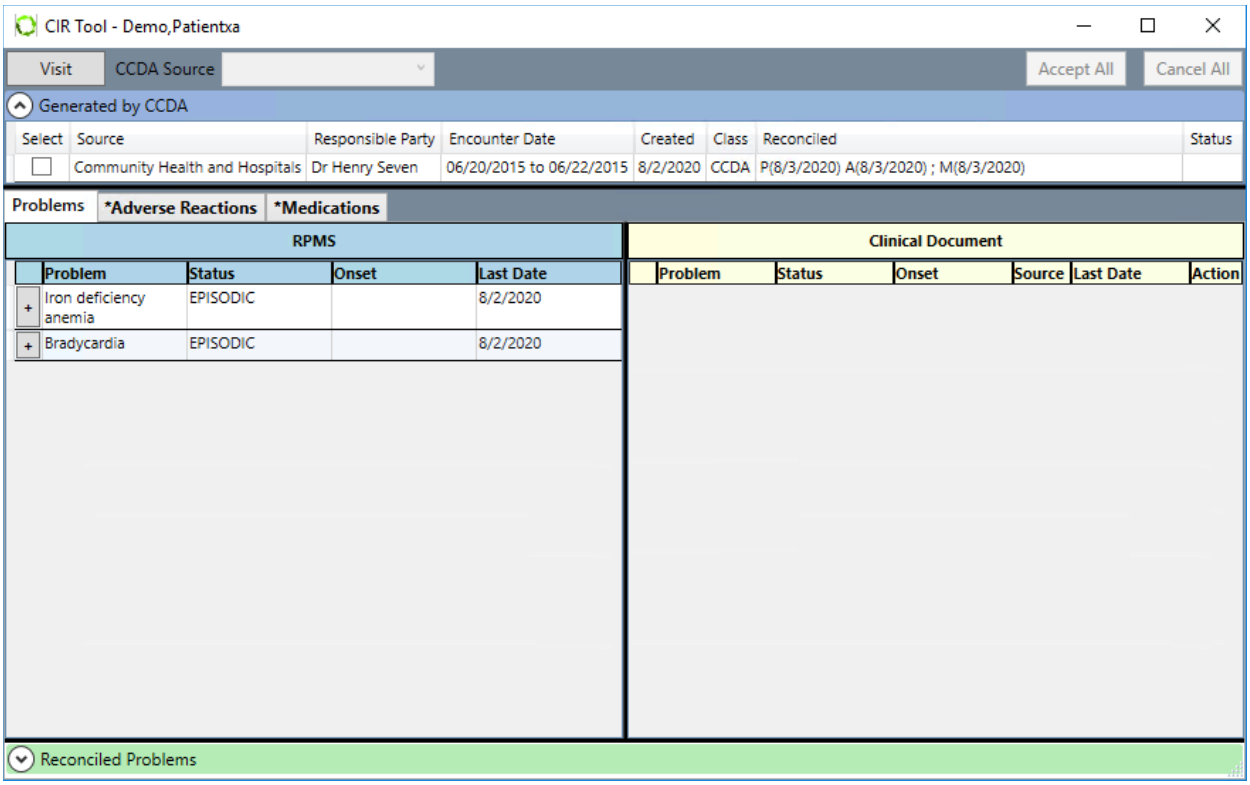

Figure 4-1: CIR Tool default view on launch for patient with CCDA documents

4.1 Visit Button

A visit context is required when a user reconciles the clinical information. The context may be set prior to opening the CIR Tool component, or the user may use the **Visit** button to set the visit context. The **Visit** button will only display if the visit context is not yet set. Clicking the **Visit** button opens the **Encounter Settings for Current Activities** dialog (Figure 4-2).

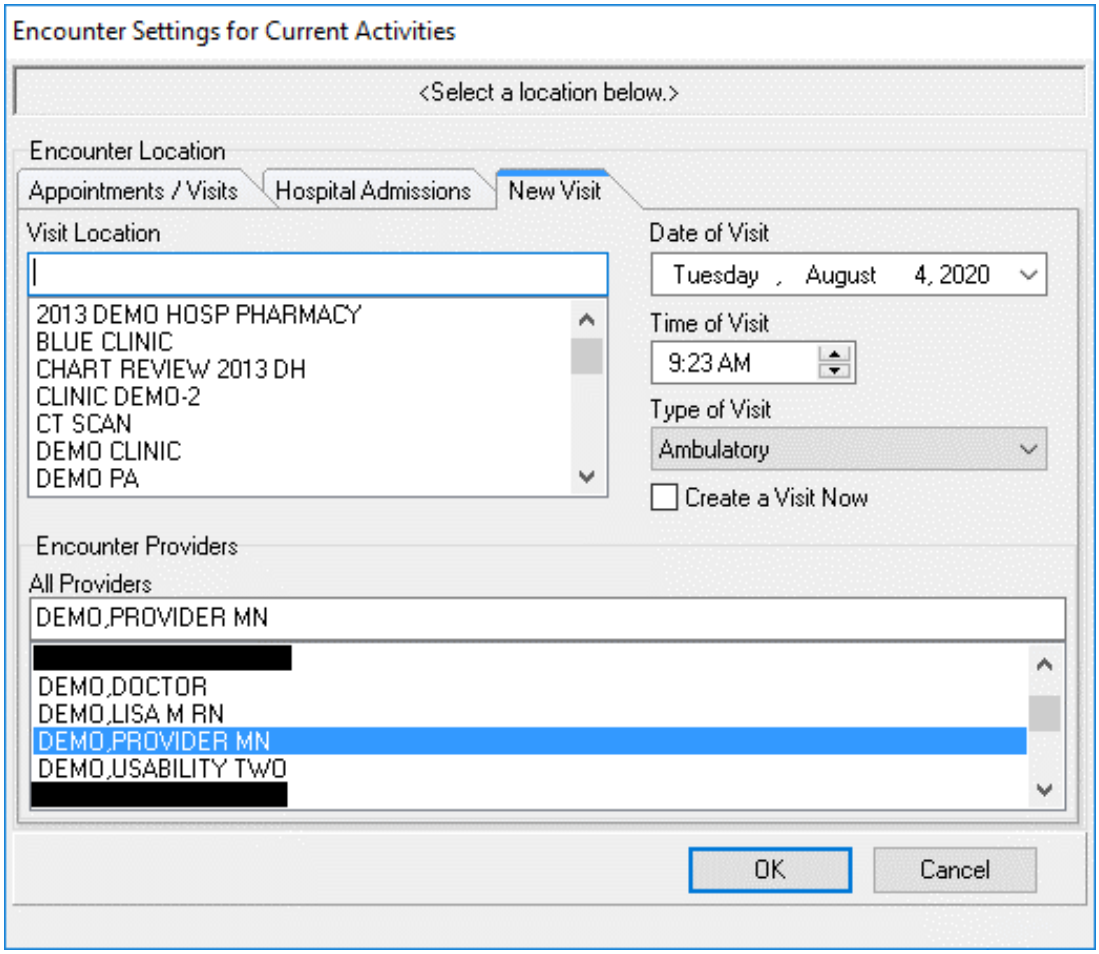

Figure 4-2: Encounter Settings for Current Activities dialog

4.2 CCDA Source

The **CCDA Source** field is a combo box that displays the items listed in the parameter BEHOCIR SOURCES. While these are site specific, most sites will have entries such as **Patient History**, **Caregiver**, and **Patient Medication List** (Figure 4-3). These will be used when reconciling from a non-CCDA source. Once a source is selected, the source will populate the **Generated by CCDA** pane (Figure 4-4) and can be reconciled.

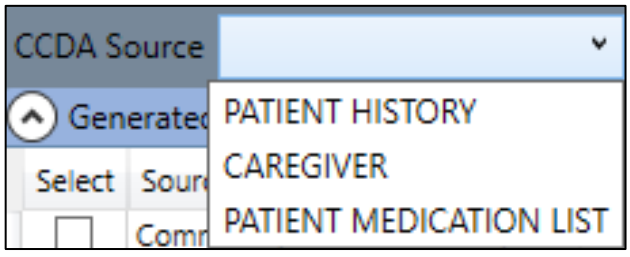

Figure 4-3: CCDA Source field with options

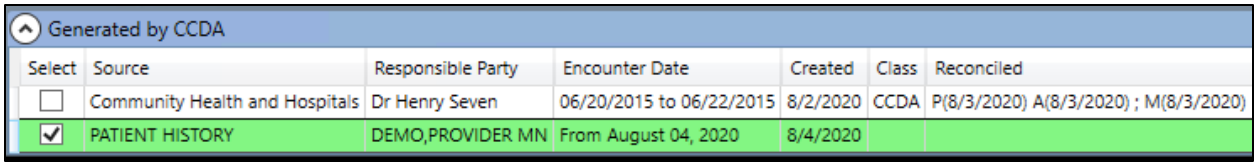

Figure 4-4: Generated by CCDA pane with Patient History source

4.3 Generated by CCDA Pane

All received CCDA documents will display for the patient (Figure 4-5). Columns include **Select**, **Source**, **Responsible Party**, **Encounter Date**, **Created**, **Class**, **Reconciled**, and **Status**. Reconciled CCDAs will have data in the **Reconciled** column consisting of letters and dates. The letters **P**, **A**, and **M** represent **Problems**, **Adverse Reactions**, and **Medications**, respectively. The date in parentheses after the letter is the date that item was last reconciled.

You may sort the list by any of the available columns (except Responsible Party) by clicking on the column header. Clicking once sorts the list A to Z or low to high, while a second click sorts Z to A or high to low.

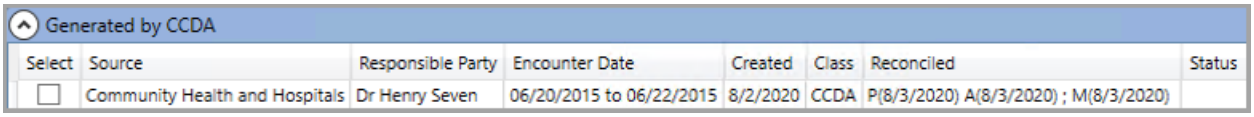

Figure 4-5: A portion of the Generated by CCDA pane with a reconciled CCDA

You may view the CCDA in full, or one of its sections (Figure 4-6), by right-clicking the line item and selecting the appropriate option from the list. The list of sections will vary based on the document selected, as not all documents will contain all sections.

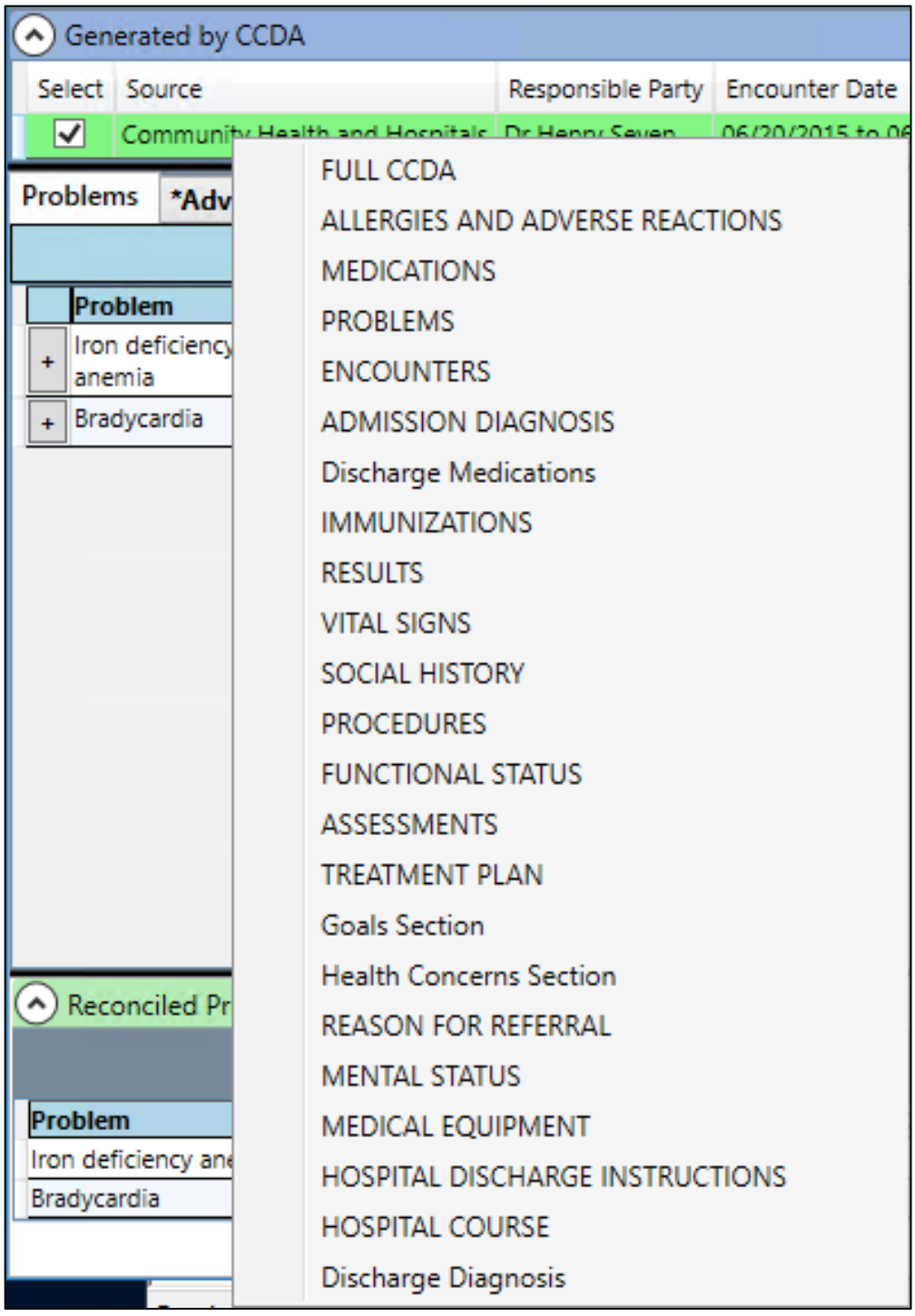

Figure 4-6: A portion of the CIR Tool with the context menu for viewing a CCDA document

If you choose to see the full CCDA, the CCDA window opens with a title reflecting the information in the source column (Figure 4-7). This window shows the sections with check boxes on the left, and the CCDA document content on the right. There are **Preferences** and **Show All Sections** menu options.

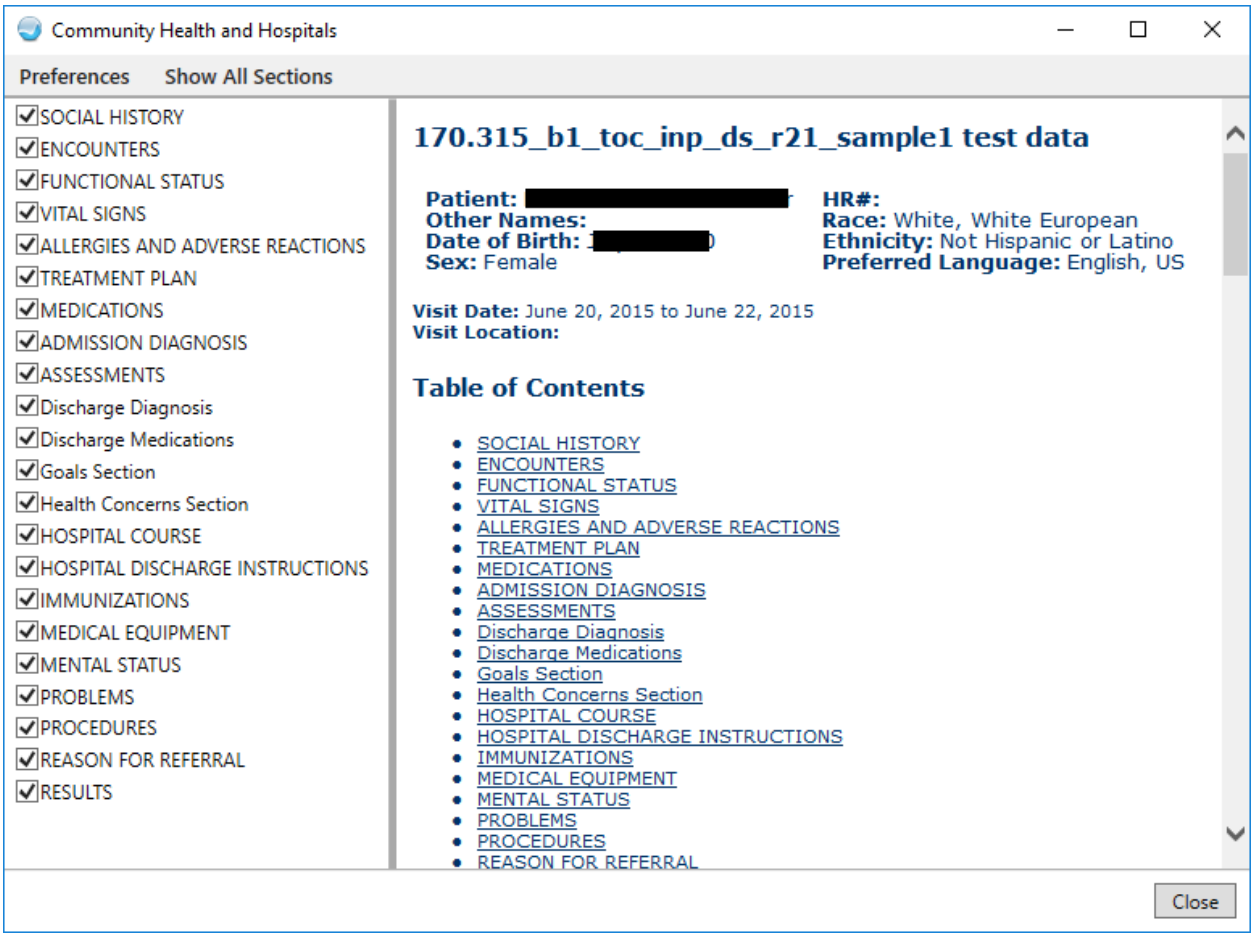

Figure 4-7: The CCDA window

Clicking on any section link in the right pane (within the document content) will jump to that section.

You may adjust the display by unchecking the box in the left pane next to a section that you do not want to display (Figure 4-8). You may also move sections by dragging and dropping the section names in the left-hand pane. As adjustments are made on the left, the content will change on the right.

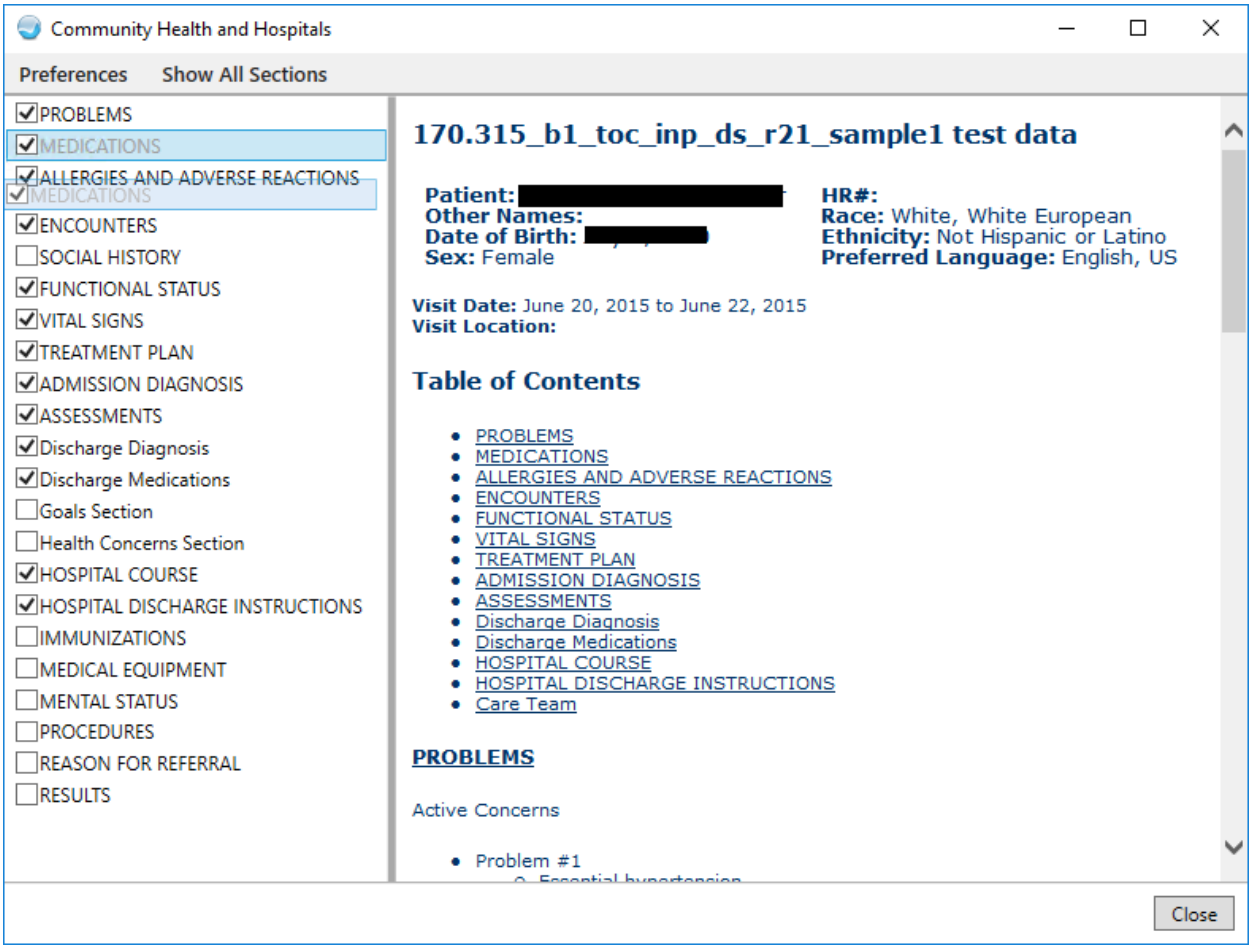

Figure 4-8: CCDA window with sections unchecked and Medications being dragged to new location

If you prefer to have these preferences saved for viewing other CCDA documents, you may click the **Preferences** menu and select **Save** (Figure 4-9).

> **Note:** Because different CCDA documents will have different sections included, the preferences may not be fully accurate for each and every CCDA document that is encountered.

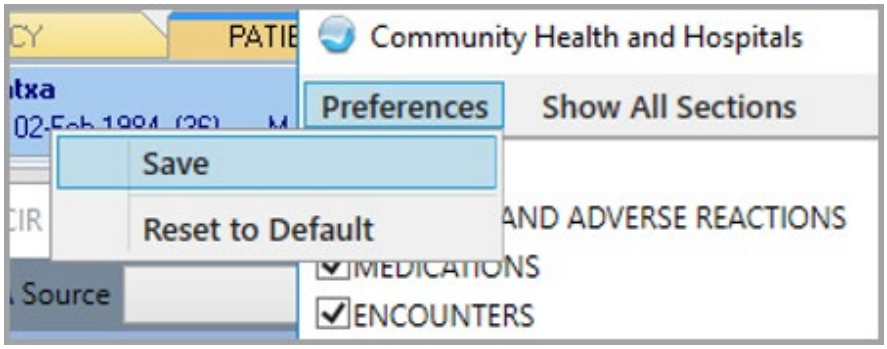

Figure 4-9: A portion of the CCDA window showing the Preferences Menu options

The Preferences option of Reset to Default (Figure 4-10) will clear the changes and remove the saved preferences. Selecting **Reset to Default** opens the **Reset Preferences** warning for confirmation. Click **Yes** to reset, or **No** to keep the existing preferences.

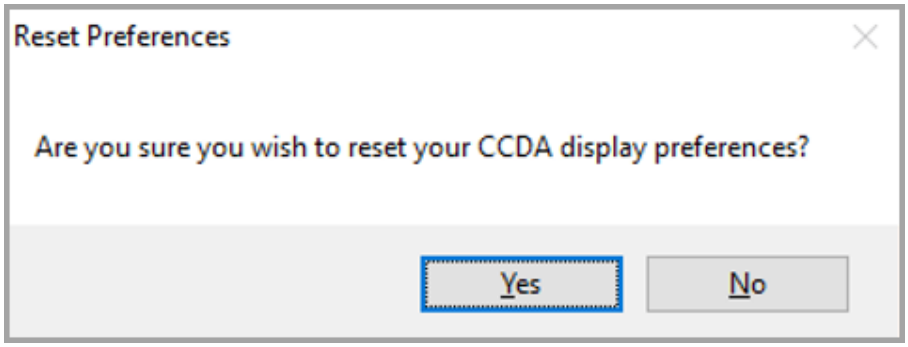

Figure 4-10: The Reset Preferences confirmation window

Clicking **Show All Sections** will restore all sections to the display for the current display only.

If you select a single section to display, there are no preferences that may be set or saved. In the example below, the **Allergies and Adverse Reactions** section (Figure 4-11) was selected from the context menu.

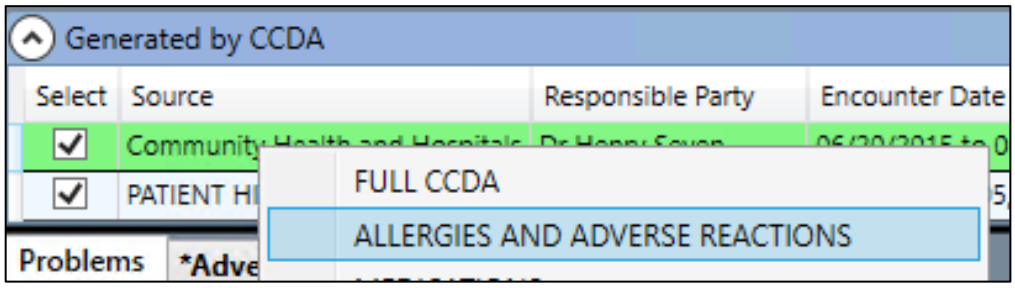

Figure 4-11: Selecting the Allergies and Adverse Reactions section only

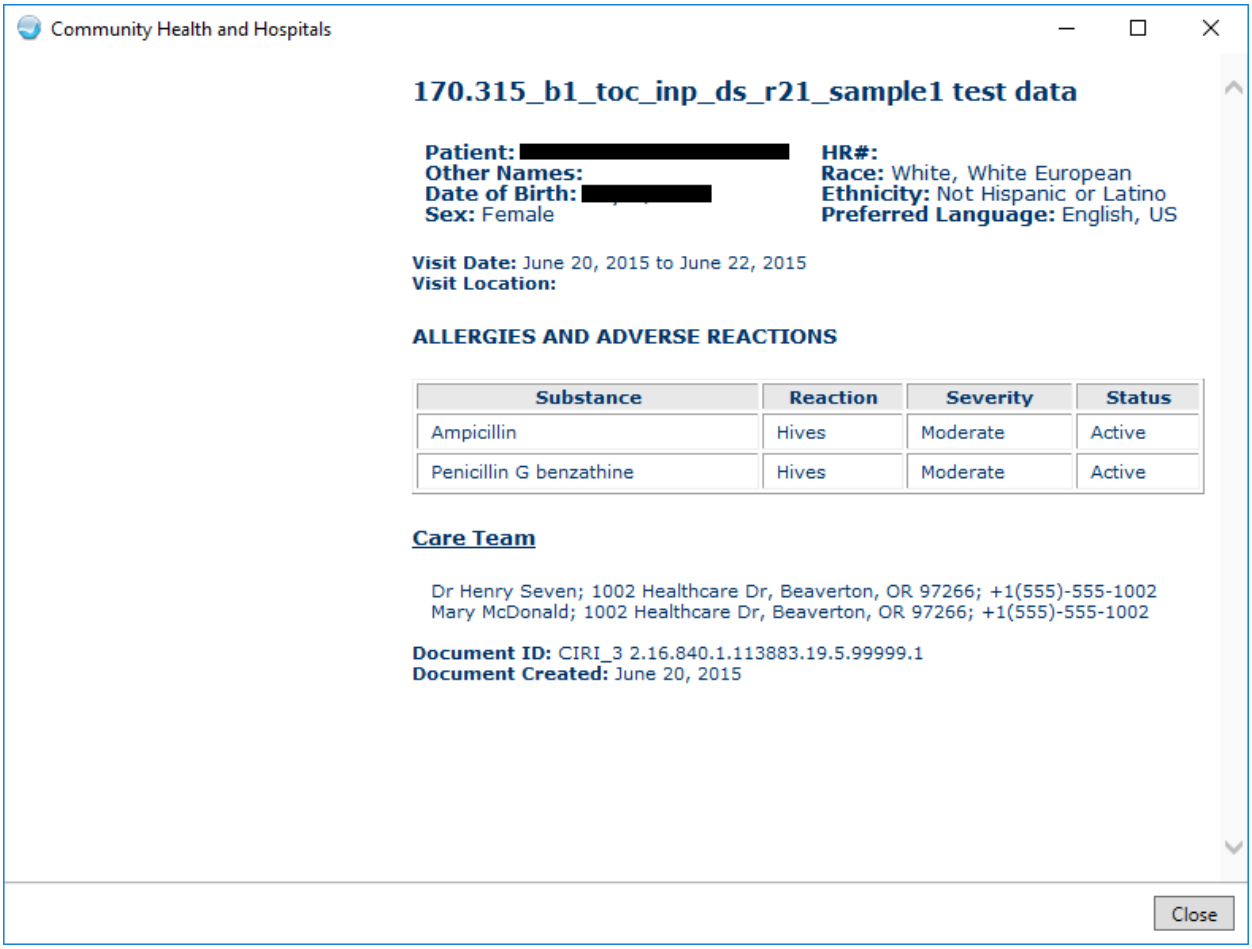

Figure 4-12: The CCDA window displaying the Allergies and Adverse Reactions section only

4.4 Problems/Adverse Reactions/Medications Tabs

The middle section of the CIR Tool window contains three tabs with two panes. The first tab is **Problems**, the second is **Adverse Reactions**, and the third is **Medications**.

On the left side, the data stored in the local RPMS database displays. On the right side, the data from the currently highlighted CCDA document (in the Generated by CCDA pane) displays. This pane has a **Set All Reviewed** button when data is present.

Clicking an item highlights a related item on the other and in the **Reconciled** pane at the bottom, so long as the system has appropriate data to match. The items will match as follows:

- Problems will match if the problem names are identical or the SNOMED CT codes match.
- Adverse Reactions will match if the first word of the causative agent names match.

- Medications will match if the code system and codes match (usually the RxNorm code system), or if the medication names are identical (including spaces).

You may control-click to remove the highlighting (Figure 4-13). The columns present will depend on the tab selected. You may sort the lists by any of the columns by clicking on the column header. Clicking once will sort A to Z or low to high, while clicking a second time will sort Z to a or high to low.

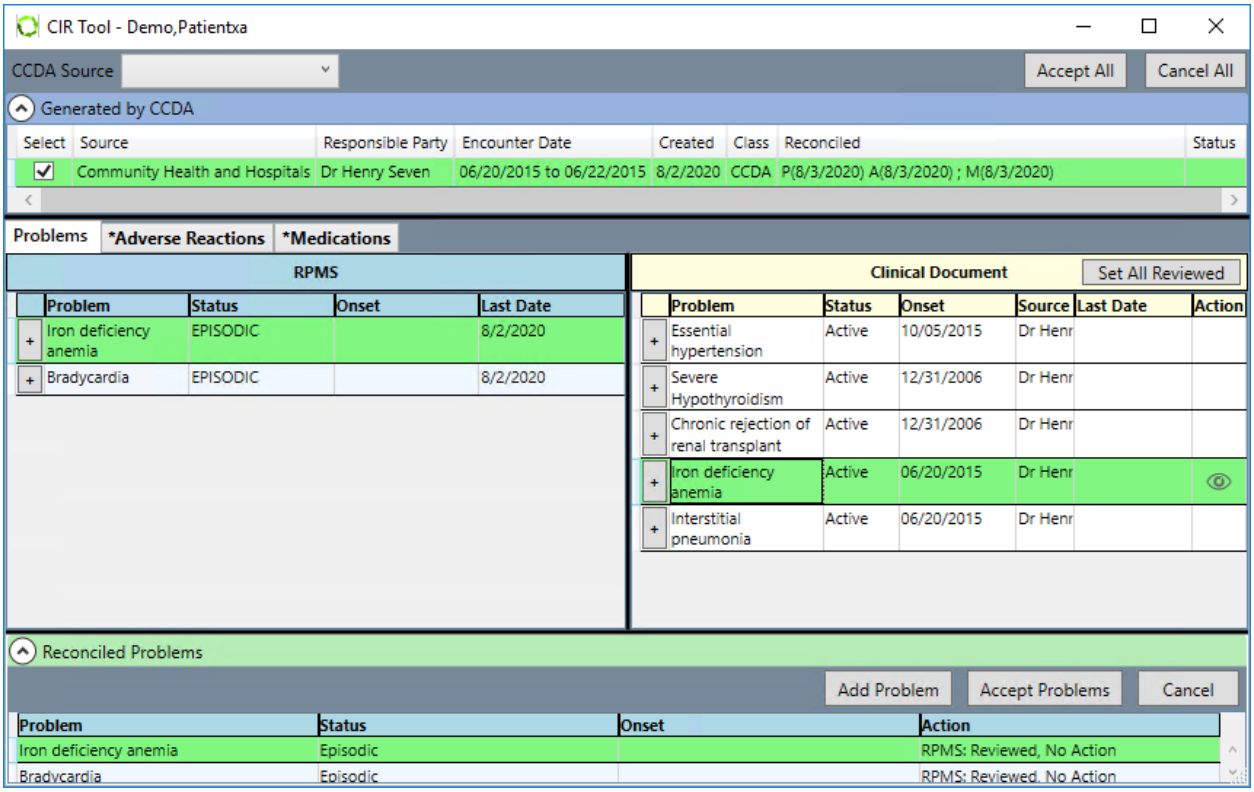

Figure 4-13: The CIR Tool window showing highlighting or related items

Each tab and source will be reviewed separately, as described in the following sections on how to reconcile the clinical information. Each line item in the **Clinical Document** pane (Figure 4-14) will get an eye icon or a check mark in the **Action** column once it has been clicked on or has an action taken on it.

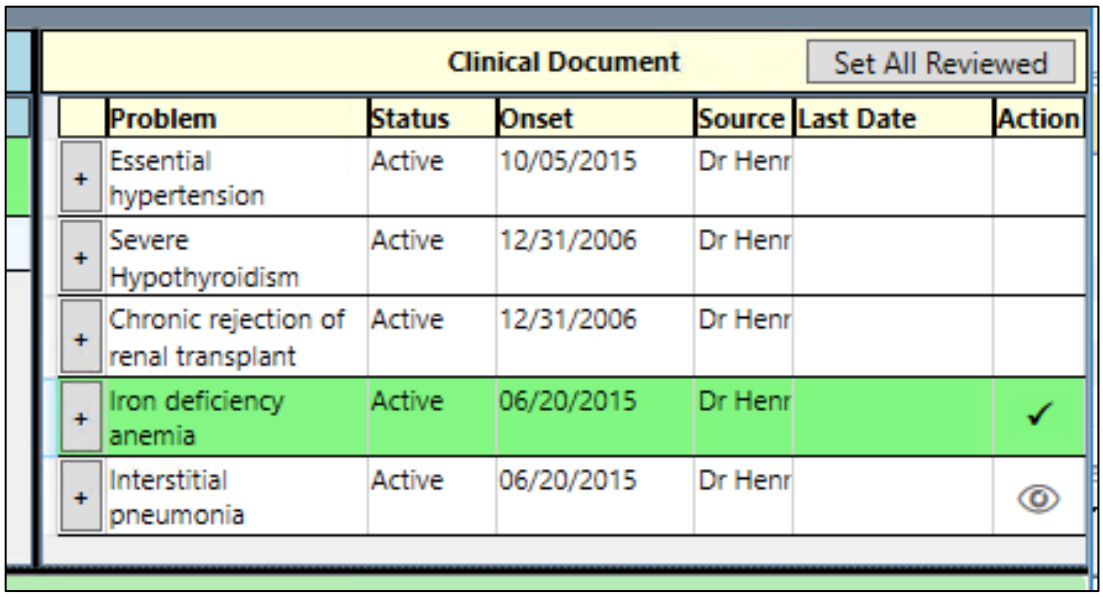

Figure 4-14: A portion of the CIR Tool Clinical Document pane of the Problems tab with Action column icons

Hovering over the icon will show additional information about the action taken (Figure 4-15).

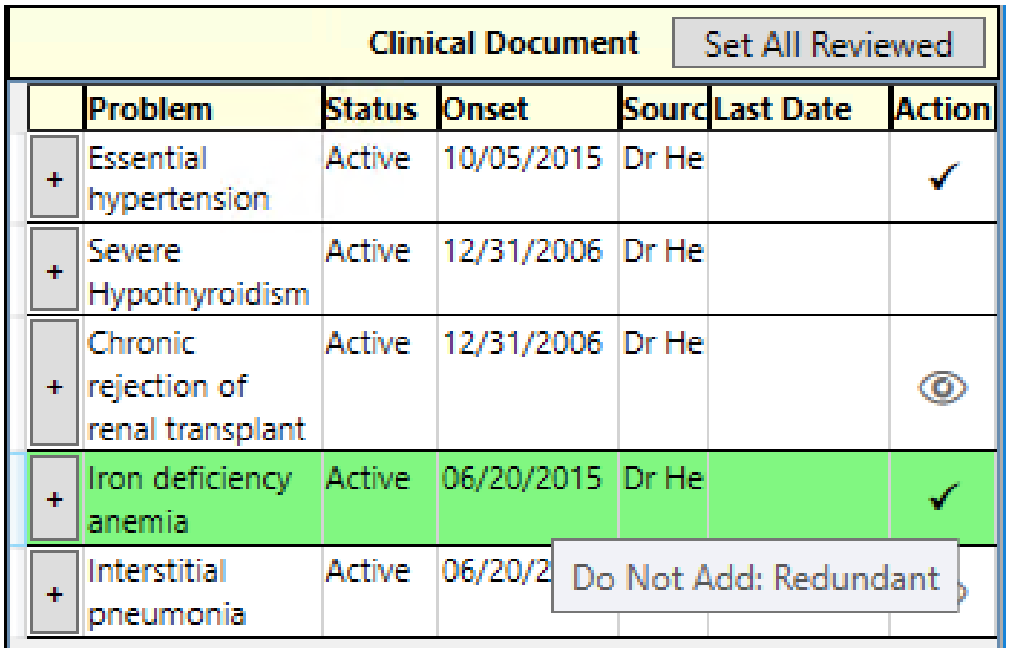

Figure 4-15: The Clinical Document pane content with hover text for action

The **Source** column may contain more information than is visible (Figure 4-16). The field does not wrap to preserve space, though you may hover the mouse over the field to see the full information.

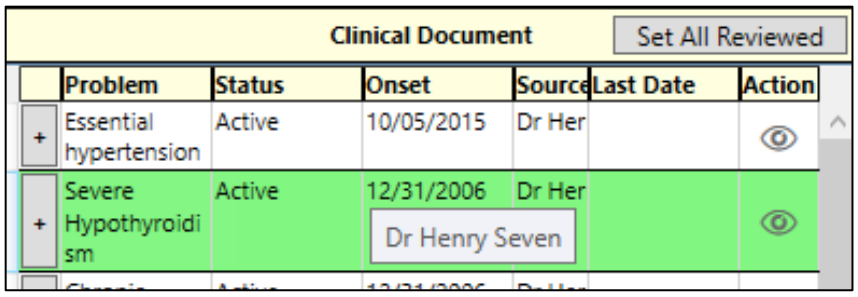

Figure 4-16: The Clinical Document pane with source hover text

Once information has had an action taken it will display in the **Reconciled Pane** described below.

4.5 Reconciled Problems/Adverse Reactions/Medications Pane

This section displays the information that has been reconciled for the selected tab in the middle portion of the CIR Tool (Figure 4-17). The columns in this pane will vary depending on the active tab in the middle section. The data from the RPMS pane will populate this section by default. The information from the **Clinical Document** pane will display once an action has been taken on it. Information added manually will also display in this section.

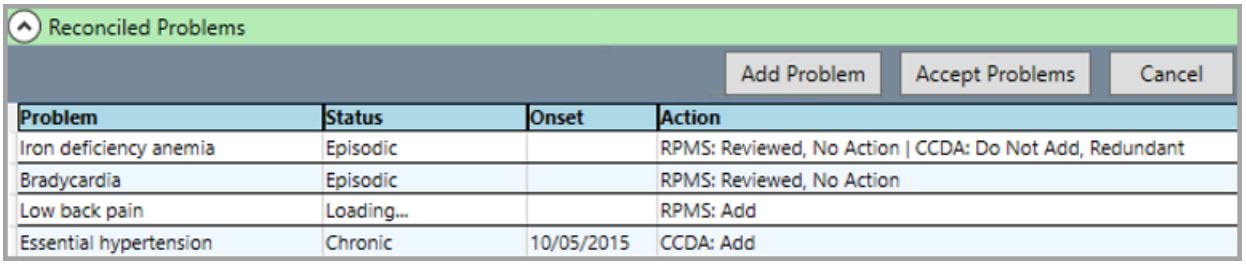

Figure 4-17: The reconciled Problems pane of the CIR Tool

4.6 Accept All Button

Once the clinical information for **Problems**, **Adverse Reactions**, and **Medications** has been reviewed and reconciled, you may use the **Accept All** button to close out the session and save the information (Figure 4-18). This will be discussed in detail in the following sections.

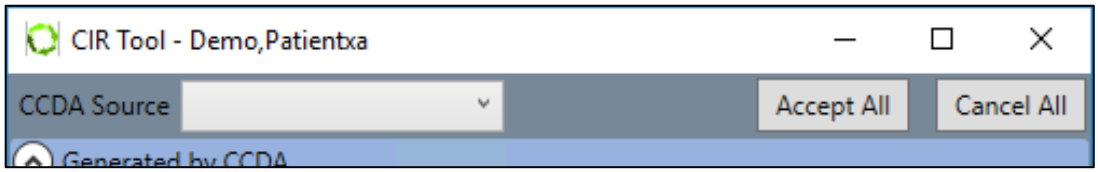

Figure 4-18: A portion of the CIR Tool with the Accept All button

4.7 Cancel All Button

The **Cancel All** button may be used to reset the CIR Tool information to the default state (Figure 4-19). This will remove all the actions that have been taken on the **Clinical Document** or **RPMS** pane lists except for the default **RPMS: Reviewed, No Action** that is applied to all the existing RPMS data.

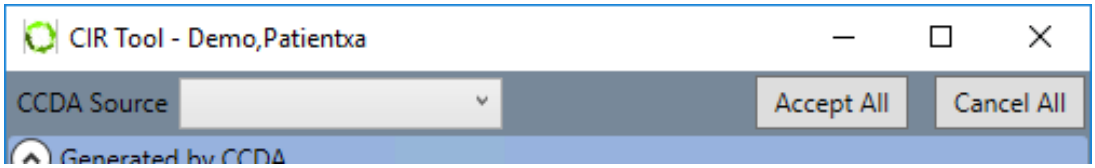

Figure 4-19: A portion of the CIR Tool with the Cancel All button

5.0 Reconcile Clinical Information

Any EHR user with sufficient clinical knowledge may reconcile clinical information; check your site's policies for specifics on who should be performing clinical reconciliation and when clinical reconciliation should be done.

To start, select a patient, then either open the CIR Tool and set a visit context using the **Visit** button, or set a visit context using the Visit box and open the CIR Tool. Select a source by either clicking on a CCDA document, or by selecting one of the sources in the CCDA Source field. Deselect an item by double clicking on it. While you may reconcile more than one document in a session, each document must be reconciled separately.

Once a source is selected, you may begin to reconcile the problems, adverse reactions, and medications. If a CCDA document is selected, the problems, adverse reactions, and medications from that document populate the **Clinical Document** pane for the appropriate tab in the middle section. For a non-CCDA source such as a medication list or caregiver, the RPMS information is populated but the remaining information must be manually entered if the data is needed in the RPMS database (see sections 5.1.3.1, 5.2.3.1, 5.2.7.1 and 5.2.7.2 for information on manual entry through the CIR Tool). For the purposes of this manual, it will be assumed from here on out that a CCDA document is selected.

The default selection is the **Problems** tab, though you may reconcile just one type of clinical data or reconcile data from one or more tabs in any order. For the purposes of this manual, the tabs will be reconciled in order of **Problems**, **Adverse Reactions**, and **Medications**. The tabs that have not been accessed will have an asterisk on the tab. Once the tab has been selected, the asterisk will disappear regardless of whether any actions were taken on the data in the tab.

The **Reconciled Problems** at the bottom (Figure 5-1) will open once a source is selected and be populated with the problems from the local RPMS database by default, with the action column reading **RPMS: Reviewed, No Action**.

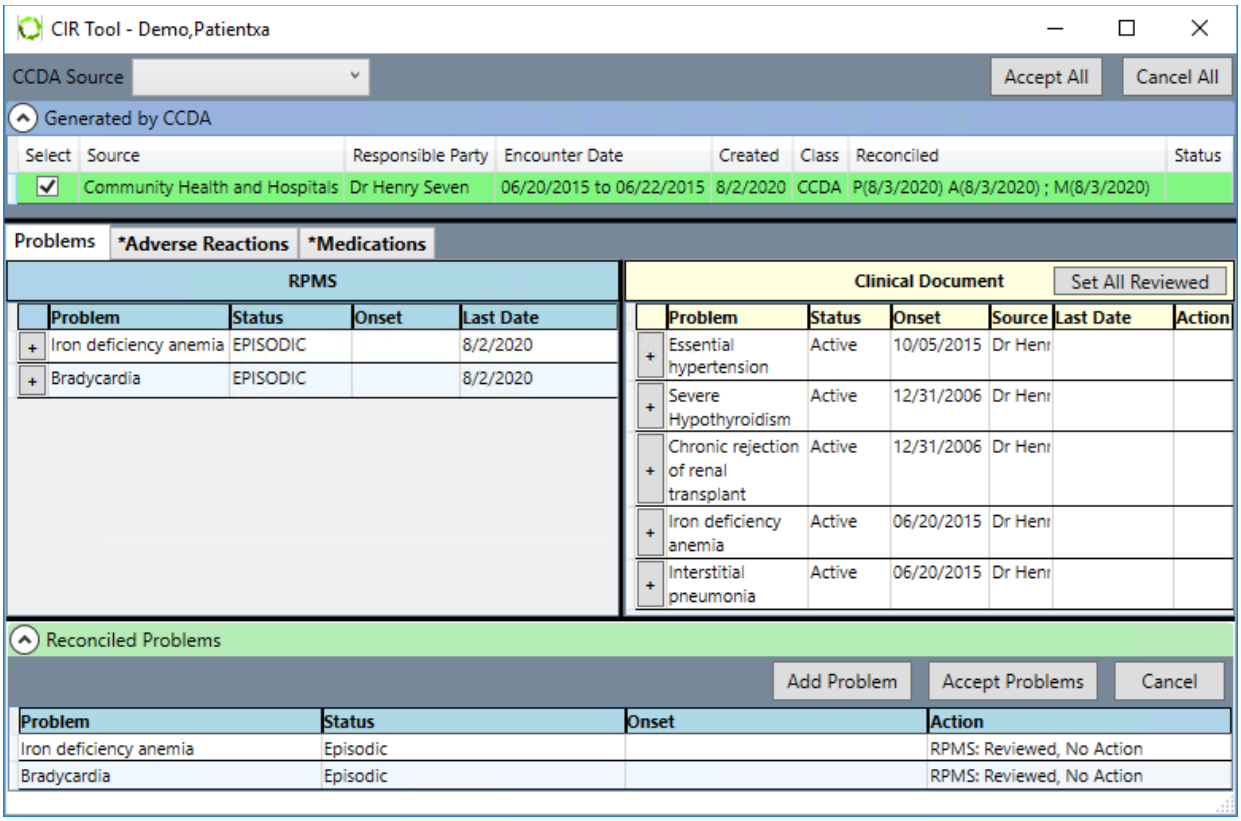

Figure 5-1: CIR Tool with CCDA document selected showing Problems reconciliation

5.1 Reconcile Problems

The **Problems** tab (Figure 5-2) will be selected by default when the CIR Tool opens. It contains two panes: **RPMS** and **Clinical Document**. The **RPMS** pane contains the information from the Integrated Problem List (IPL) and has the columns **Problem**, **Status**, **Onset**, and **Last Date**. The **Clinical Document** pane contains the problem information from the selected CCDA document and has columns **Problem**, **Status**, **Onset**, **Source**, **Last Date**, and **Action**. The data in each pane may be sorted by any column as described in Section 4.4 above.

Clicking a problem in either pane highlights any matching item in the other pane, and in the **Reconciled Problems** pane at the bottom of the CIR Tool window. A match for a problem is an item where the problem text or the associated Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT) code match. Keep in mind that if the lists are long, the highlighted item in the other list may be out of sight. Scroll through the lists as needed to see if there are matching items. You may control-click to remove the highlighting.

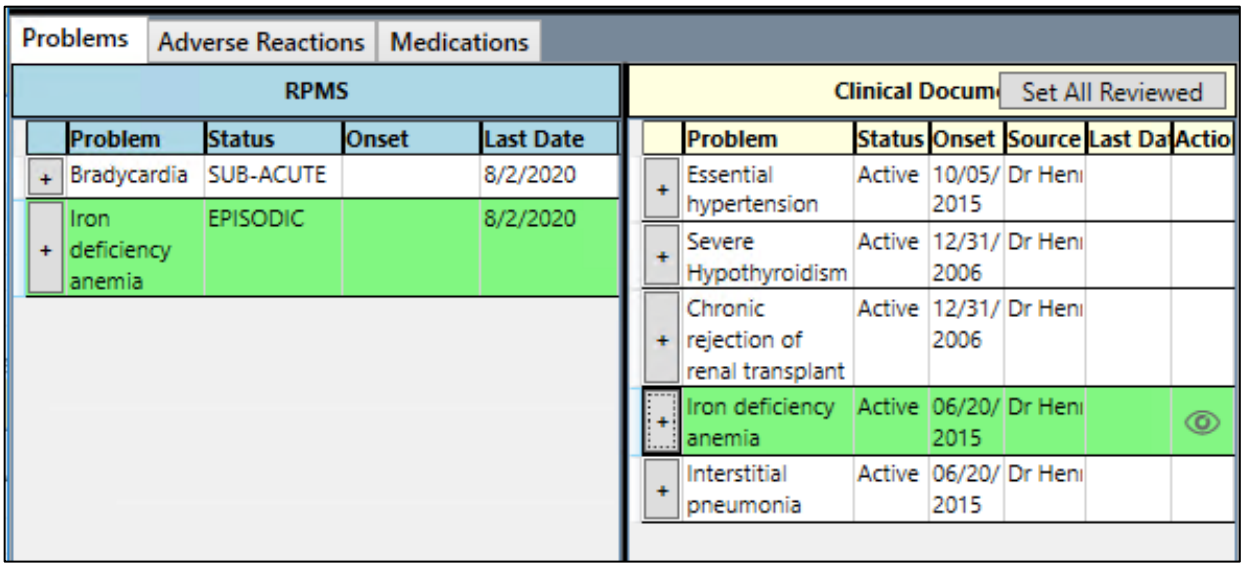

Figure 5-2: Problems tab with matching line items highlighted

Click the plus sign (+) next to any given problem in either pane to see the details of the problem (Figure 5-3). The details may contain information such as SNOMED CT or ICD-10 codes and terms, status, date of last edit, and source. Click a second time to close the details.

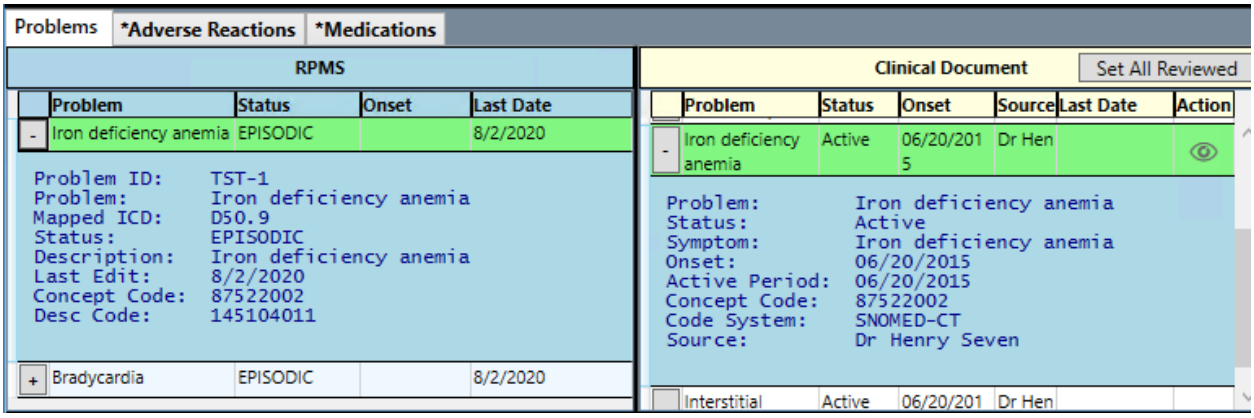

Figure 5-3: A portion of the CIR Tool is shown with problem details showing

Right-click a problem to see the actions available. Right-click actions are described for the RPMS pane and the **Clinical Document** pane below.

5.1.1 RPMS Problems

For RPMS problems, right-click actions include the following (Figure 5-4):

- **Change**
- **Reviewed, No Action**
- **View Details**

- **Entered in Error**

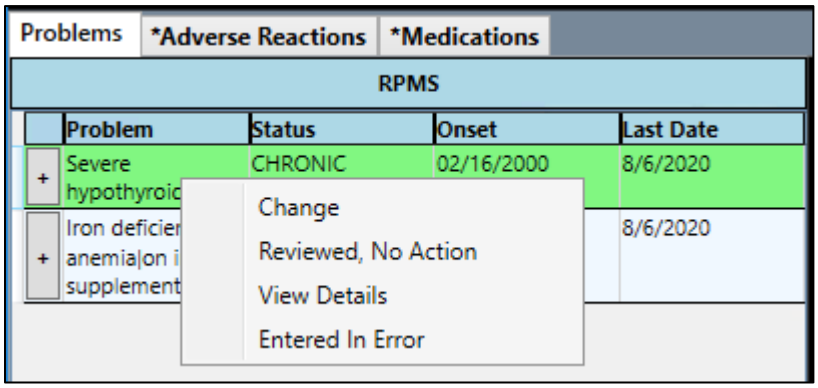

Figure 5-4: A portion of the CIR Tool with right-click actions for RPMS problems

5.1.1.1 Change

Selecting **Change** opens the **Reconcile RPMS Problem** window (Figure 5-5). Here, you may edit the problem as needed.

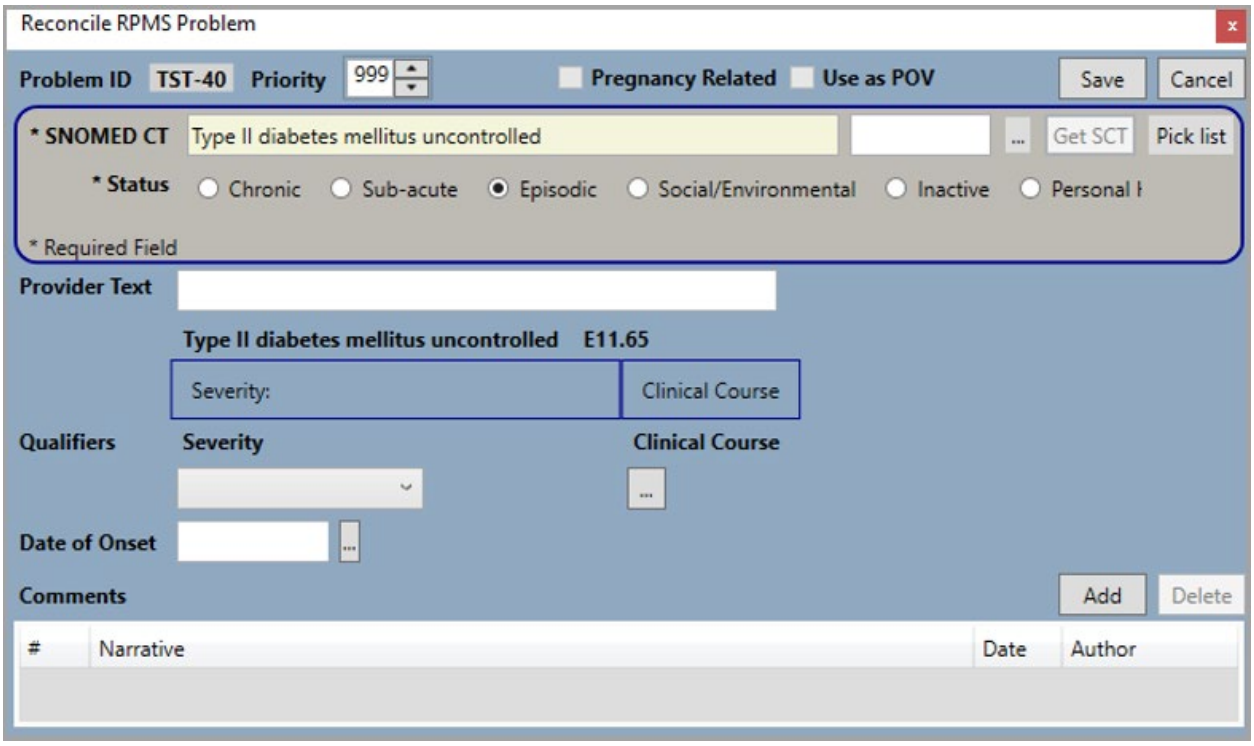

Figure 5-5: Reconcile RPMS Problems window

Once the needed changes have been made, click **Save** to save the changes to the **Reconciled Problems** pane (Figure 5-6). The changes will not be saved to the IPL until the session is finalized as described in Section 6.0.

5.1.1.2 Reviewed, No Action

Selecting **Reviewed, No Action** marks the item in the **Reconcile Problems** list. For ease of documentation, this action is the default for all RPMS problems, so you only need to manually select it if some other action was selected first and you want to go back to the **Reviewed, No Action** option.

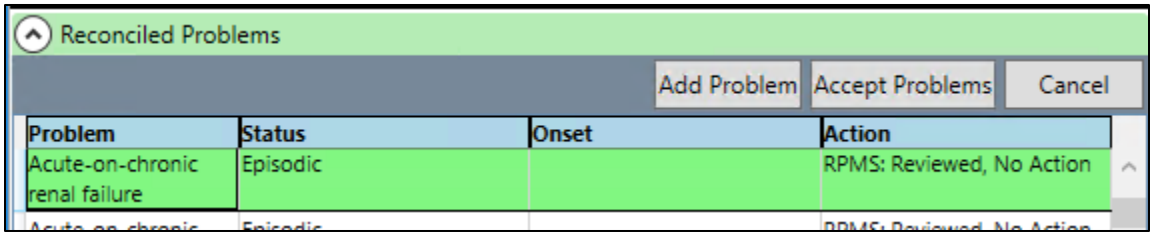

Figure 5-6: The Reconciled Problems section with action RPMS: Reviewed, No Action

5.1.1.3 View Details

Selecting **View Details** opens a new window where the problem details are listed (Figure 5-7). If there is a matching problem in the **Clinical Document** pane, the details for that problem will also be shown.

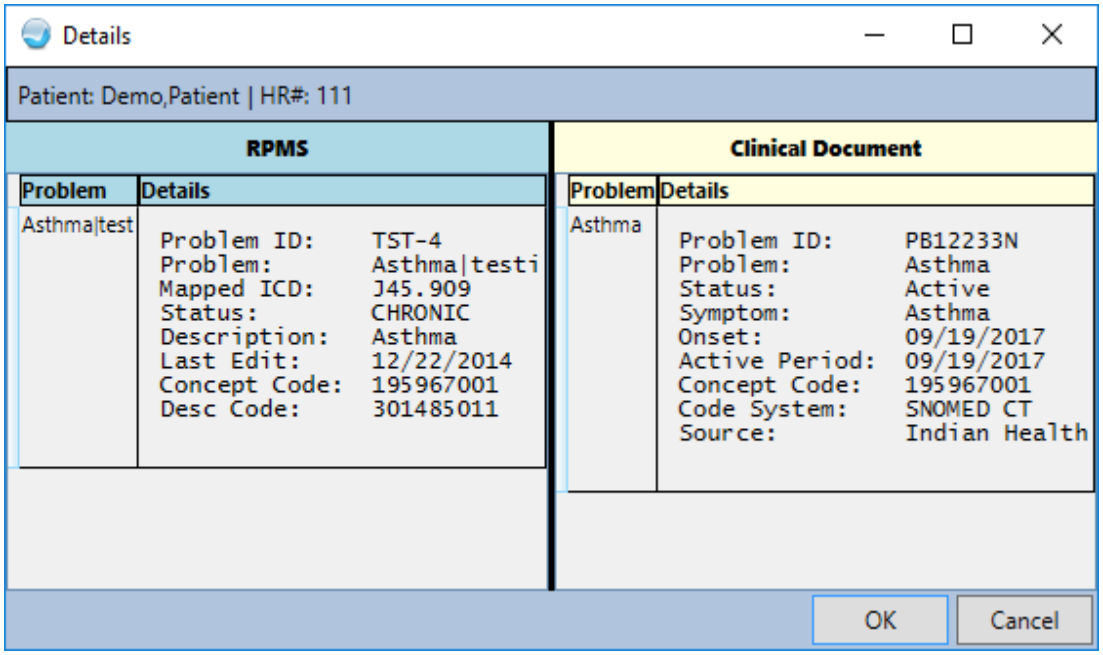

Figure 5-7: Details window with RPMS problem and corresponding Clinical Document problem

You may right-click the problem to see all the same actions as on the main window except View Details (Figure 5-8).

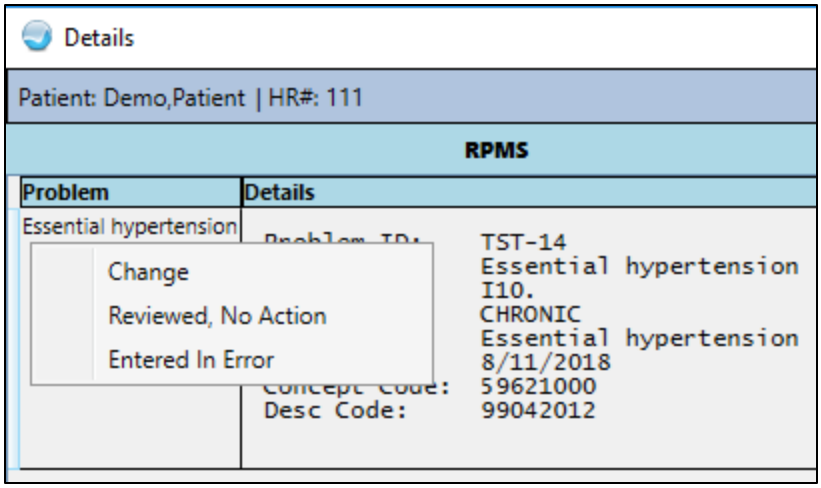

Figure 5-8: Right-click actions for RPMS problem details

5.1.1.4 Entered In Error

Selecting **Entered In Error** opens the **Delete RPMS Problem** window (Figure 5-9). You may select the appropriate reason or type in another, then click **OK**.

> **Note:** Problems may not be deleted if used for any visit as Purpose of Visit (POV), or they contain Visit Instructions, Care Planning, or Goals.

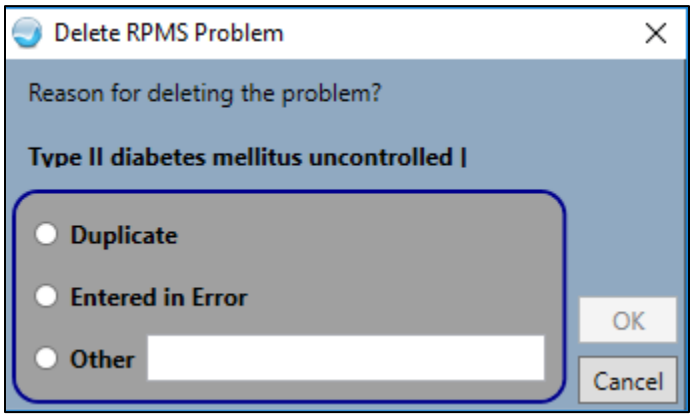

Figure 5-9: Delete RPMS Problem window

The problem will display in the **Reconciled Problems** pane with an action of **RPMS: Entered In Error**. This change will not be saved to the IPL until the session is finalized as described in Section 6.0.

5.1.2 Clinical Document Problems

For Clinical Document problems (Figure 5-10), actions include:

- **Add**

- **Do Not Add, Redundant**
- **Do Not Add, Not Clinically Significant**
- **View Details**

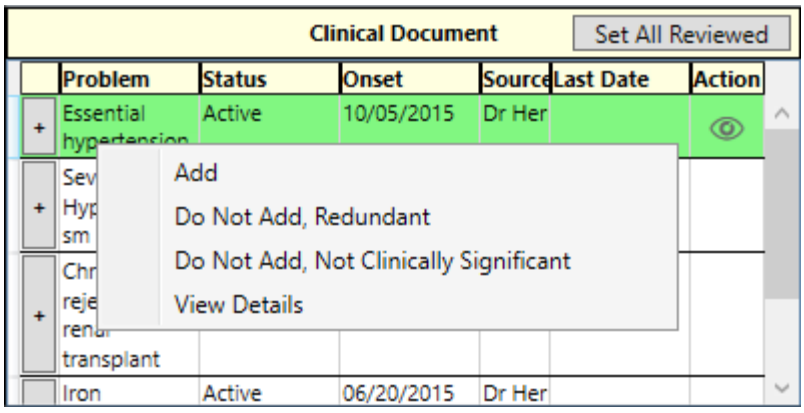

Figure 5-10: A portion of the CIR Tool with right-click actions for Clinical Document problems

If there are any unreviewed problems, the **Set All Reviewed** button is visible. Clicking this button sets all the clinical document problems to reviewed but will not assign an action to them.

5.1.2.1 Add

Selecting **Add** opens the **Add CCDA Problem** window (Figure 5-11). The available information will be pre-populated. You may fill in additional fields as needed and click **Save**.

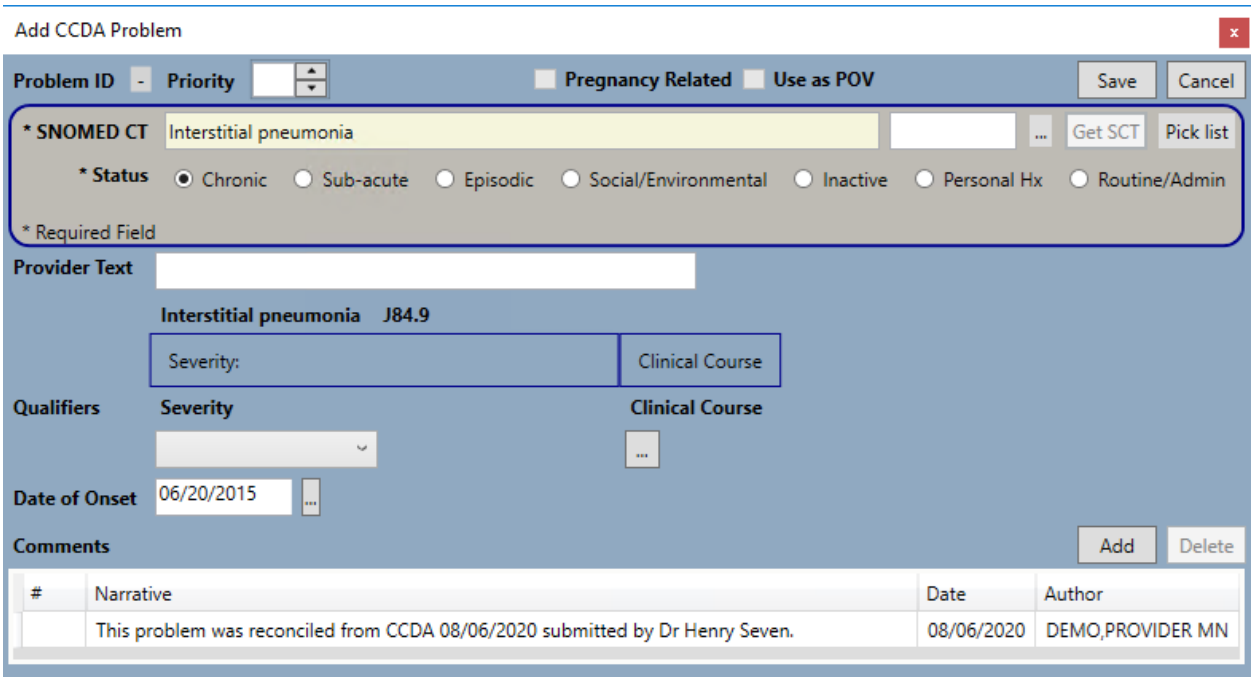

Figure 5-11: Add CCDA Problem window

If a problem with the same SNOMED CT concept ID is already present in RPMS, the following error message (Figure 5-12 displays:

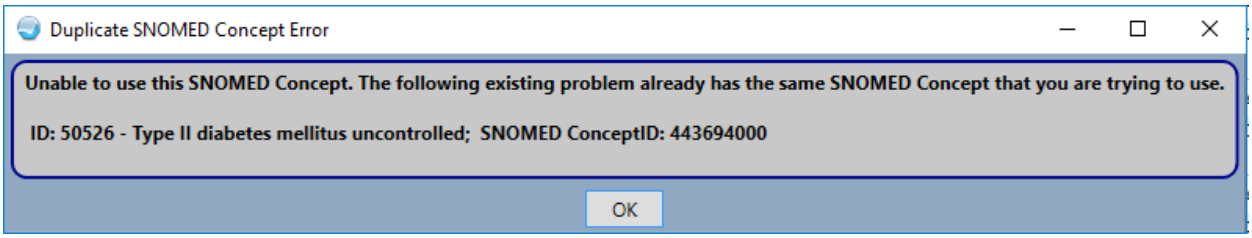

Figure 5-12: Duplicate SNOMED Concept Error

In this case, you should select action **Do Not Add, Redundant** as shown in Section 5.1.2.2.

5.1.2.2 Do Not Add, Redundant

Selecting **Do Not Add, Redundant** adds a check mark in the **Clinical Document** pane (Figure 5-13) and marks the problem in the **Reconciled Problems** pane (Figure 5-14).

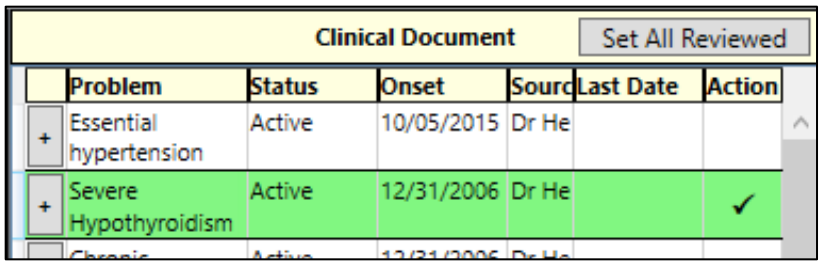

Figure 5-13: Clinical Document pane with check in Action column for Severe Hypothyroidism

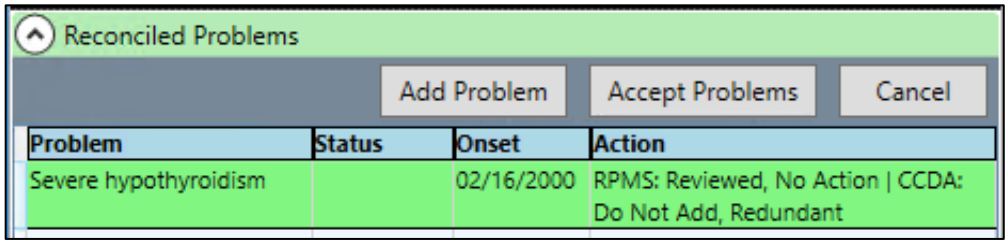

Figure 5-14: Reconciled Problems pane with action CCDA: Do Not Add, Redundant

5.1.2.3 Do Not Add, Not Clinically Significant

Selecting **Do Not Add, Not Clinically Significant** adds a check mark in the **Clinical Document** pane (Figure 5-15) and marks the problem in the **Reconciled Problems** pane (Figure 5-16).

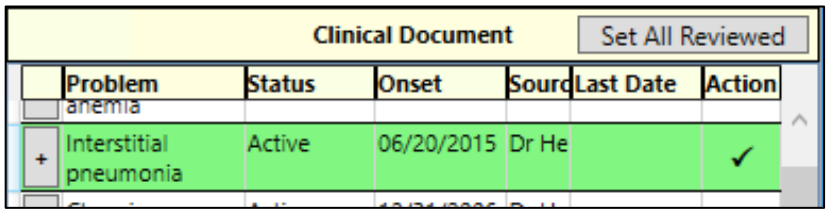

Figure 5-15: Clinical Document pane with check in Action column for Interstitial pneumonia

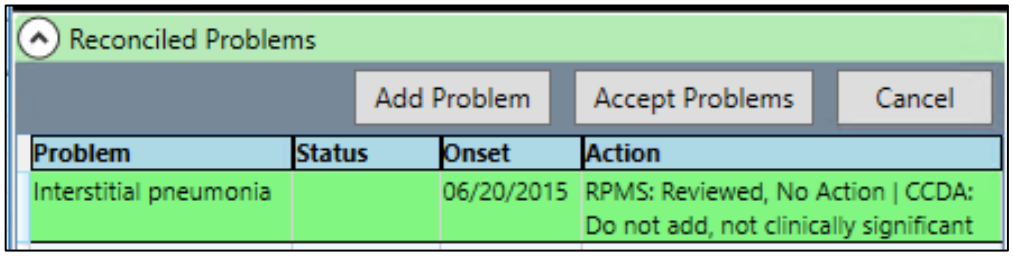

Figure 5-16: Reconciled Problems pane with CCDA: Do not add, not clinically significant

5.1.2.4 View Details

Selecting **View Details** opens a new window (Figure 5-17) where the problem details are listed. If there is a matching problem in the RPMS pane, the details for that problem will also be shown.

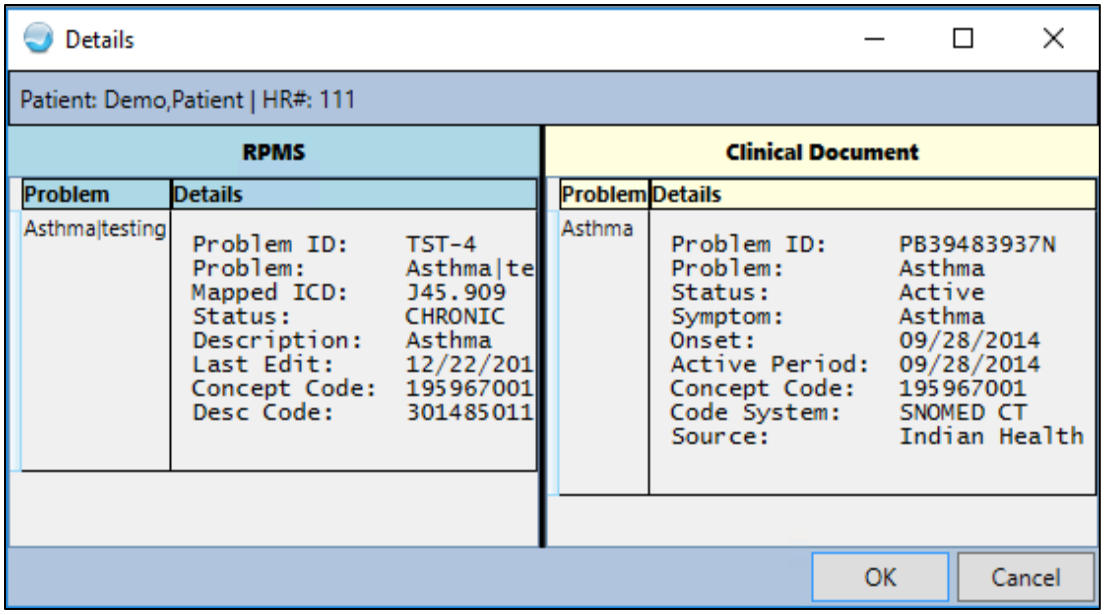

Figure 5-17: Details window for Clinical Document problem and corresponding RPMS problem

You may right-click the problem to see all the same actions as on the main window (Figure 5-18) except View Details.

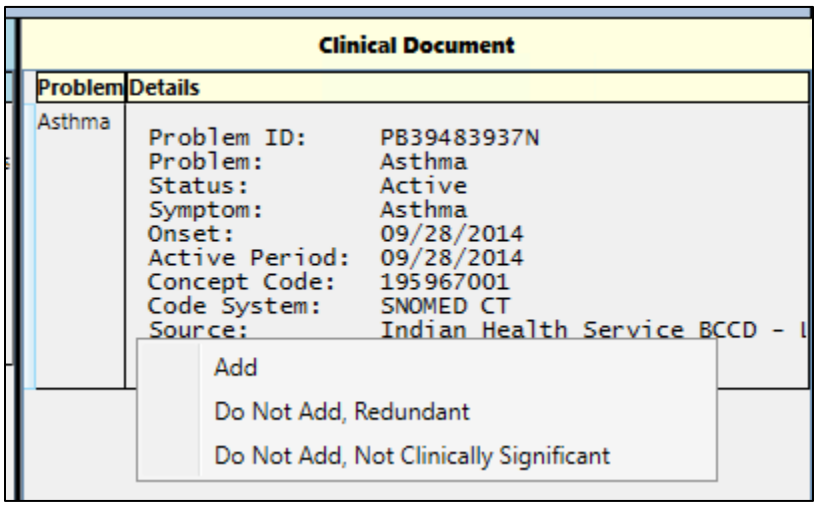

Figure 5-18: Right-click menu for Clinical Document problem

5.1.3 Review the Reconciled Problems

Once all the problems have been reconciled, you may review the items and the actions taken in the Reconciled Problems pane (Figure 5-19) 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, onset date, and action.

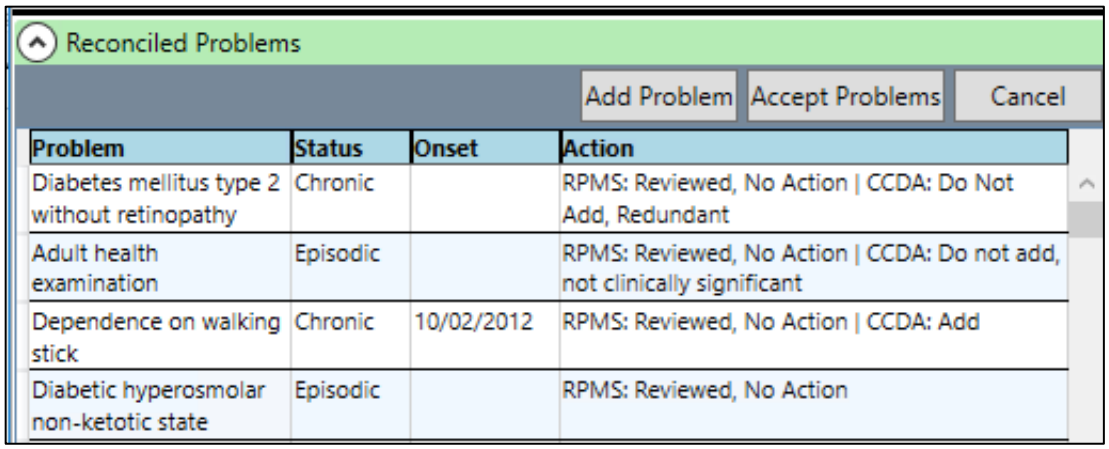

Figure 5-19: Reconciled Problems pane with actions taken on each item

5.1.3.1 Add Problem

If needed, you may add a completely new problem from this section by selecting the **Add Problem** button. Clicking this button opens the **Add problem** window (Figure 5-20). You may search for a SNOMED CT and complete the remaining information as usual.

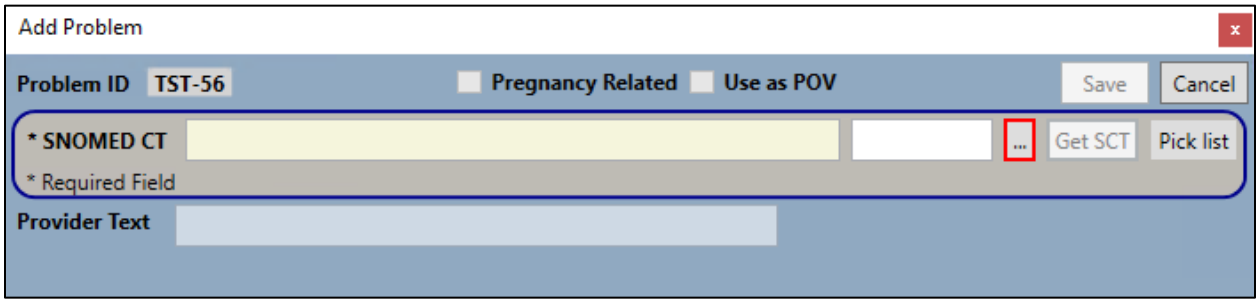

Figure 5-20: The CIR Tool Add Problem window

There is the same check for duplicate SNOMED CT codes using this option as when using the **Add** action on a **Clinical Document** problem in the **Problems** tab.

5.1.3.2 Accept Problems

Until the reconciled problems 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**. If you reconciled or will reconcile other items, use the **Accept All** button (see Section 6.1) after all reconciliation has been completed.

If the **Accept Problems** button is used but not all problems have been reviewed, the **Unreviewed items** warning displays (Figure 5-21).

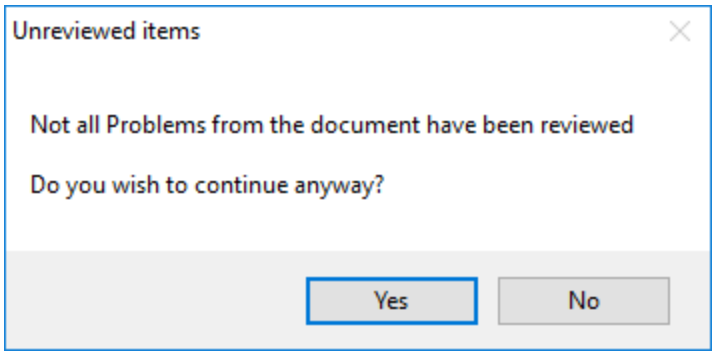

Figure 5-21: The Unreviewed items warning

Click **Yes** to continue anyway, or **No** to go back and review the remaining problems.

If there are no unreviewed problems or if you choose **Yes** on the **Unreviewed items** warning, the **Review/Sign Changes** window (Figure 5-22) displays. The reconciled items will display along with any other items needing signature.

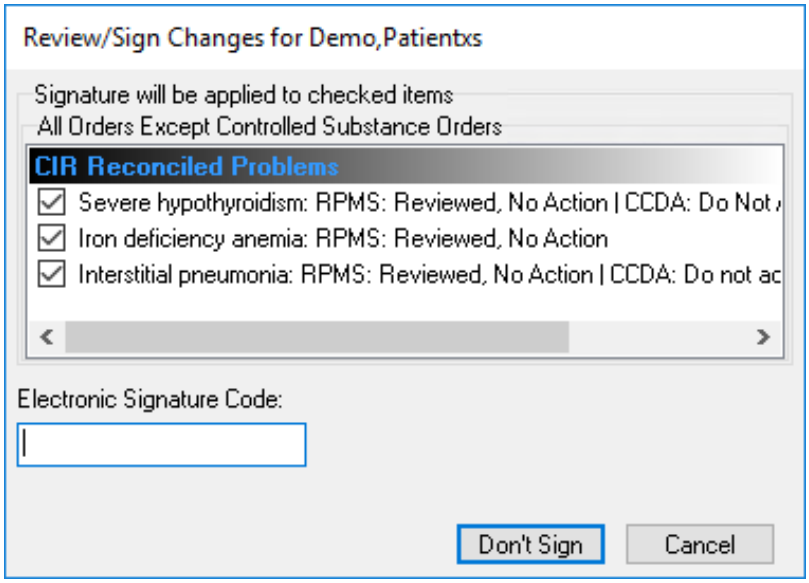

Figure 5-22: Review/Sign Changes for Reconciled Problems

Enter your electronic signature and click **Sign**. The CIR Tool information for Problems will reset and the CCDA document will reflect the reconciliation type and date.

5.1.3.3 Cancel

If you do not want to complete the reconciliation of the problems, or if you want to undo your changes for the problems only, click the **Cancel** button. There is no confirmation of this action; clicking **Cancel** will remove all the previously selected actions for the Problems immediately. If you want to reset the entire CIR Tool, use the **Cancel All** button instead.

5.2 Reconcile Adverse Reactions

To reconcile the Adverse Reactions, click the **Adverse Reactions** tab. Like the **Problems** tab, this tab contains two panes: **RPMS** and **Clinical Document**. The **RPMS** pane will show the adverse reactions recorded in the RPMS Adverse Reactions package (and not reactions documented in the problem list). It has columns **Causative Agent**, **Event**, **Symptoms**, **Status**, and **Last Date**. The **Clinical Document** pane contains the adverse reaction information from the selected CCDA document and has columns **Causative Agent**, **Event**, **Symptom**, **Status**, **Source**, **Last Date**, and **Action**. The data in each pane may be sorted by any column as described in Section 4.4.

Clicking an adverse reaction in either pane will highlight any matching item in the other pane (Figure 5-23), and in the **Reconciled Adverse Reactions** pane at the bottom of the CIR Tool window. A match for an adverse reaction is when the first word in the causative agent field matches. Keep in mind that if the lists are long, the highlighted item in the other list may be out of sight. Scroll through the lists as needed to see if there are matching items. You may control-click to remove the highlighting.

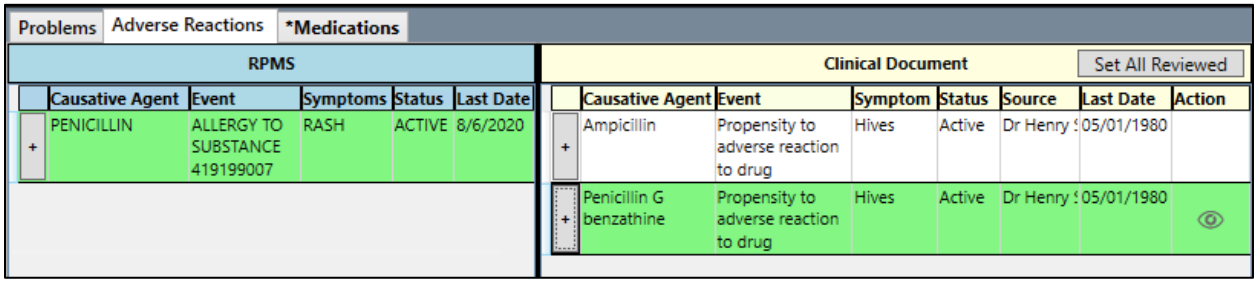

Figure 5-23: Adverse Reactions tab with matching line items highlighted

Click the plus sign (+) next to any given adverse reaction in either pane to see the details of the adverse reaction. The details may contain information such as causative agent, event type, symptoms, drug or drug class, ingredients, source, documentation date, and last modification date. Click a second time to close the details.

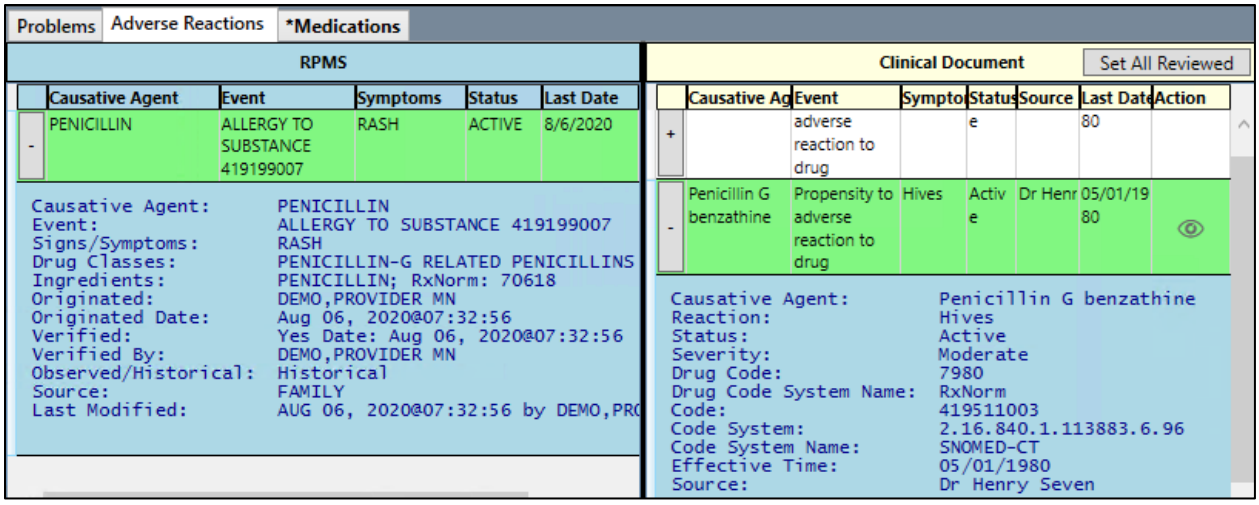

Figure 5-24: Adverse Reactions tab with details showing

Right-click an adverse reaction for the context menu actions available. Context menu actions are described for the **RPMS** pane and the **Clinical Document** pane in the sections below.

5.2.1 RPMS Adverse Reactions

For RPMS adverse reactions, context menu actions include (Figure 5-25):

- **Change**
- **RPMS: Reviewed, No Action**
- **Entered in Error**
- **Inactivate or Reactivate**
- **View Details**

If the adverse reaction is currently active, the **Inactivate option** displays. If the adverse reaction is currently inactive, the **Reactivate** option will display.

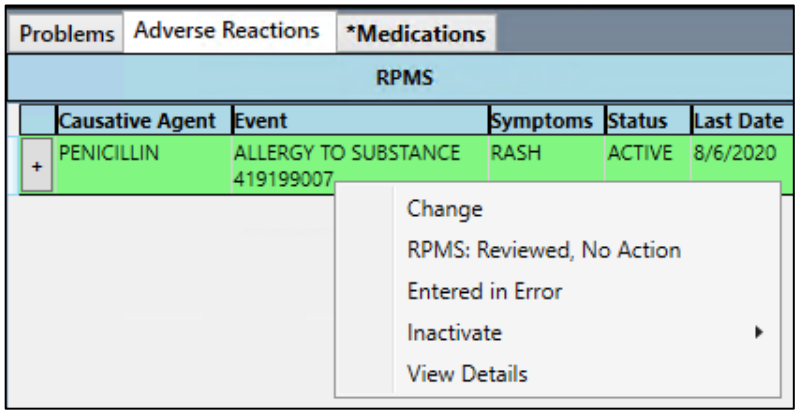

Figure 5-25: Adverse Reactions tab with right-click actions for RPMS pane

5.2.1.1 Change

Selecting **Change** opens the **Edit Adverse Reaction** window (Figure 5-26). Here you may change the event code, source of information, add signs/symptoms, and 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.

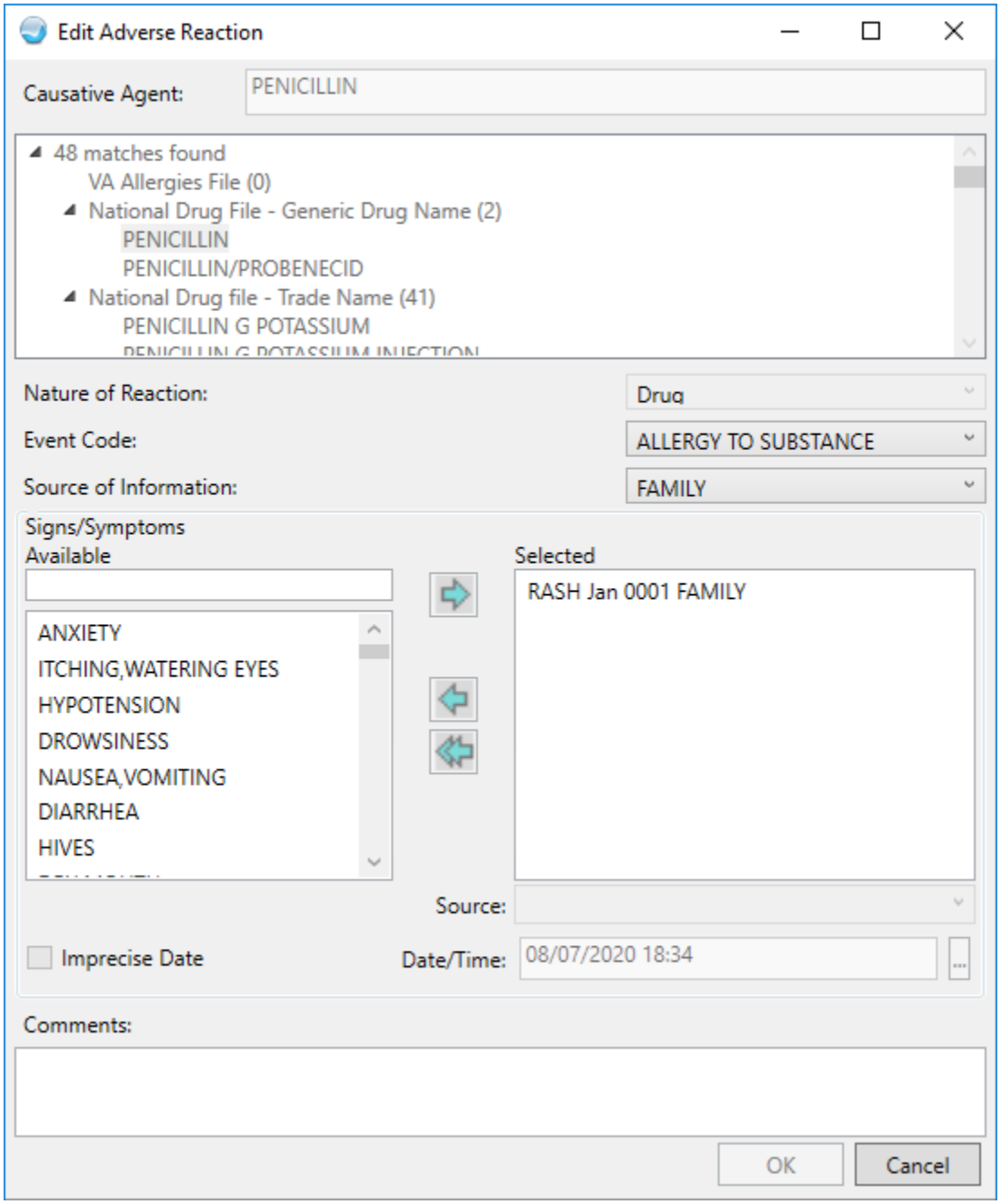

Figure 5-26: The Edit Adverse Reaction window of the CIR Tool

Once the needed changes have been made, click **Save** to save the changes to the **Reconciled Adverse Reactions** pane. The changes will not be saved to the **Adverse Reactions** component until the session is finalized as described in Section 6.0.

5.2.1.2 RPMS: Reviewed, No Action

Selecting **RPMS: Reviewed, No Action** marks the item in the **Reconciled Adverse Reactions** pane (Figure 5-27). For ease of documentation, this action is the default for all RPMS adverse reactions, so you only need to manually select it if some other action was selected first and you want to go back to the **RPMS: Reviewed, No Action** option.

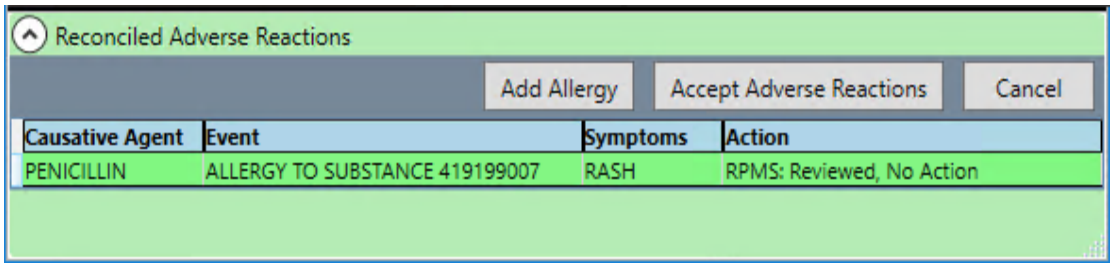

Figure 5-27: Reconciled Adverse Reactions pane with item marked RPMS: Reviewed, No Action

5.2.1.3 Entered in Error

Selecting **Entered in Error** opens the **Entered in Error** window (Figure 5-28). Enter a reason and click **OK** to logically delete the entry: the entry will still exist in the system but will be marked as entered in error, will not show in the patient chart, and will not be used in order checks. It can still be found in the RPMS system for audit and legal purposes.

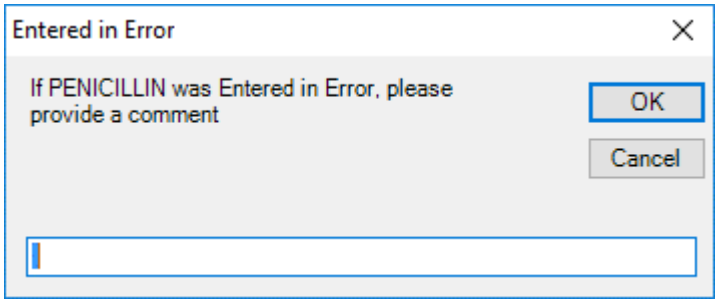

Figure 5-28: The Entered in Error window for Adverse Reactions

The adverse reaction displays in the **Reconciled Adverse Reactions** pane (Figure 5-27) with an action of **RPMS: Entered In Error**. This change will not be saved to the Adverse Reactions component until the session is finalized as described in Section 6.0.

5.2.1.4 Inactivate

Selecting **Inactivate** opens secondary options of **No Longer Allergic** and **Reaction is Tolerable** (Figure 5-29). Selecting one of these options will mark the adverse reaction as inactive with the selected reason. These adverse reactions will be available to view in the patient chart but will not be used in order checks.

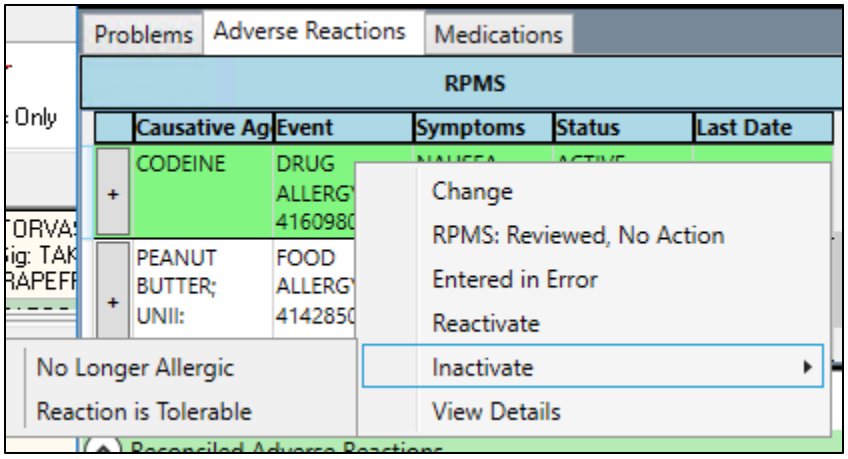

Figure 5-29: Adverse Reactions tab with the right-click menu for RPMS pane

The adverse reaction displays in the **Reconciled Adverse Reactions** pane with an action of **RPMS: Inactivate Reaction is Tolerable** or **RPMS: Inactivate No Longer Allergic** depending on the reason selected. This change will not be saved to the **Adverse Reactions** component until the session is finalized as described in section 6.0.

5.2.1.5 Reactivate

Selecting **Reactivate** will mark the item in the **Reconciled Adverse Reactions** list and reactivate the item.

The adverse reaction will display in the **Reconciled Adverse Reactions** pane (Figure 5-30) with an action of **RPMS: Reactivate**. This change will not be saved to the **Adverse Reactions** component until the session is finalized as described in section 6.0.

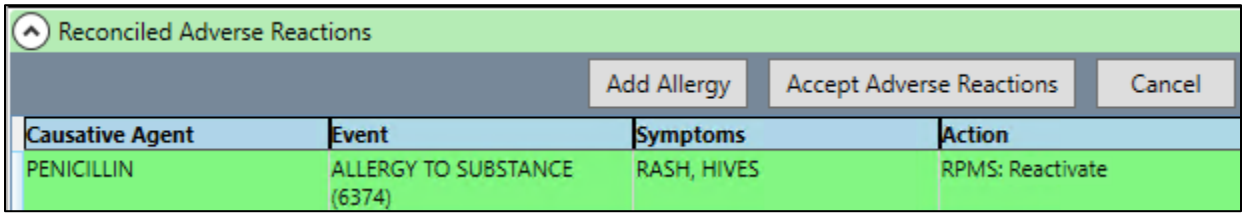

Figure 5-30: Reconciled Adverse Reactions line item with action RPMS: Reactivate

5.2.1.6 View Details

Selecting **View Details** opens a new window (Figure 5-31) where the adverse reaction details are listed. If there is a matching adverse reaction in the **Clinical Document** pane, the details for that adverse reaction will also be shown.

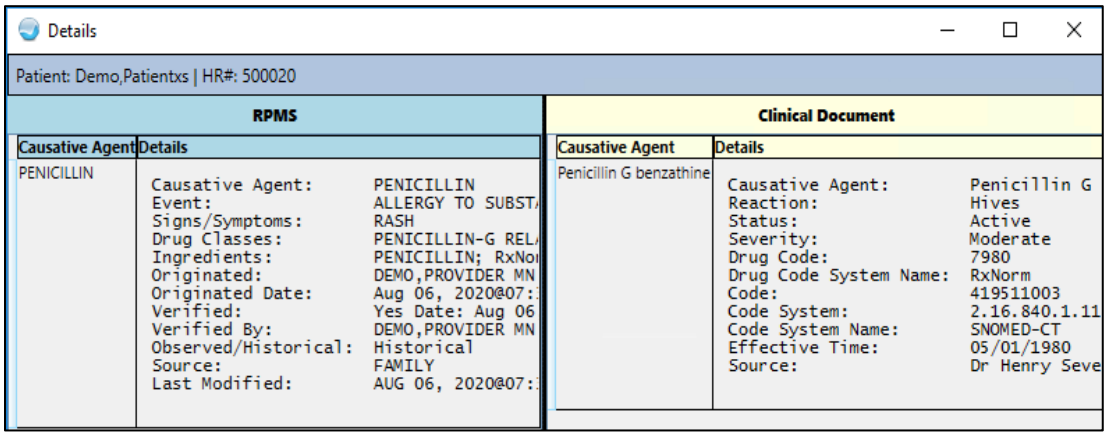

Figure 5-31: The Details window for Adverse Reactions with matching causative agents

You may right-click the adverse reaction to see all the same actions as on the main window (Figure 5-32) except View Details.

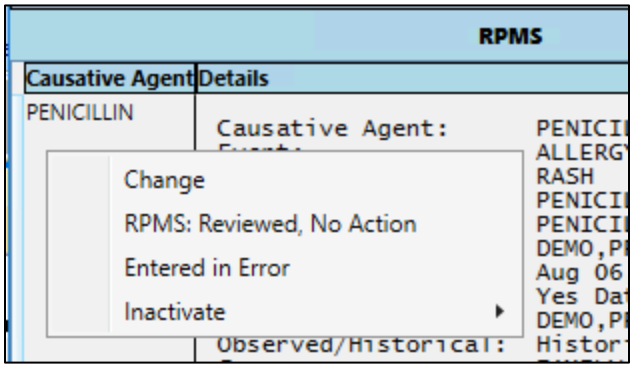

Figure 5-32: Right-click actions on adverse reaction Details window in CIR Tool

5.2.2 Clinical Document Adverse Reactions

For Clinical Document adverse reactions (Figure 5-33), actions include:

- **Add**
- **CCDA: Do not add, redundant**
- **CCDA: Do not add, not clinically significant**
- **View Details**

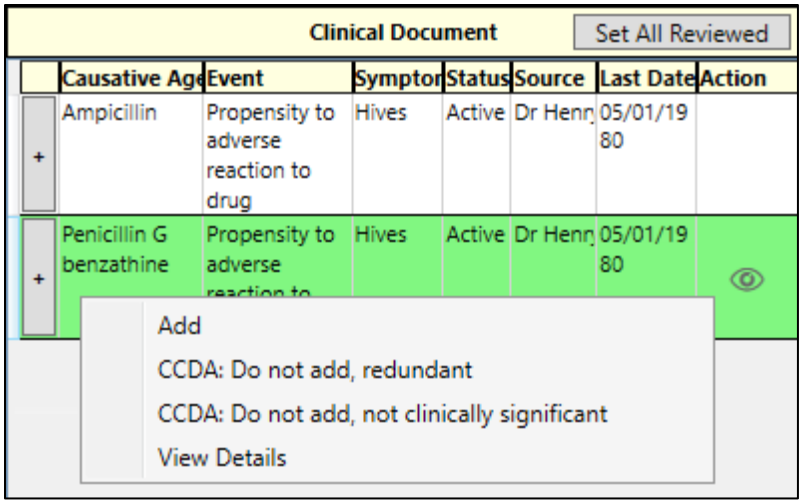

Figure 5-33: Right-click actions on adverse reaction Details window in CIR Tool

If there are any unreviewed adverse reactions, the **Set All Reviewed** button is visible. Clicking this button will set all the clinical document adverse reactions to reviewed but will not assign an action to them.

5.2.2.1 Add

Selecting **Add** allows you to add the item to the adverse reactions in RPMS (Figure 5-34).

If one or more symptoms from the Clinical Document cannot be matched to the symptoms in RPMS, the **Pick Symptom Translations** window displays.

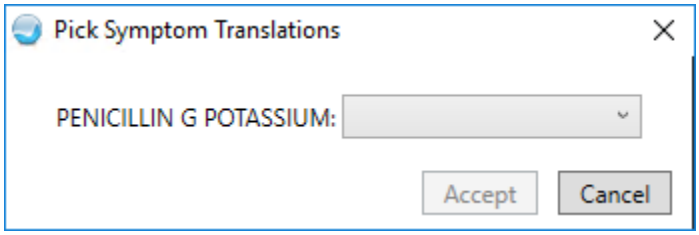

Figure 5-34: Pick Symptoms Translations dialog

Click the down arrow to see the list of available symptoms. Select the best match or select **No Equivalent** or **Not Applicable** if there is not a direct match (Figure 5-35).

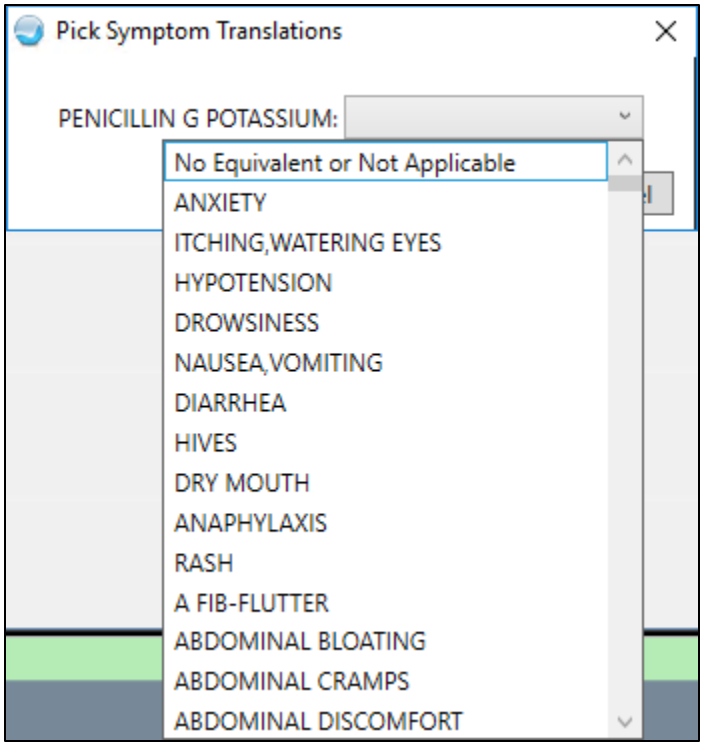

Figure 5-35: Pick Symptom Translations options

Once a selection has been made, click the **Accept** button.

If there is a match to the RPMS symptoms or if you click **Accept** on the **Pick Symptom Translations** dialog, the **Add Adverse Reaction** window (Figure 5-36) opens. The available information will be pre-populated, and the source will be **EXTERNAL SOURCE**. You may fill in additional fields as needed and click **OK**.

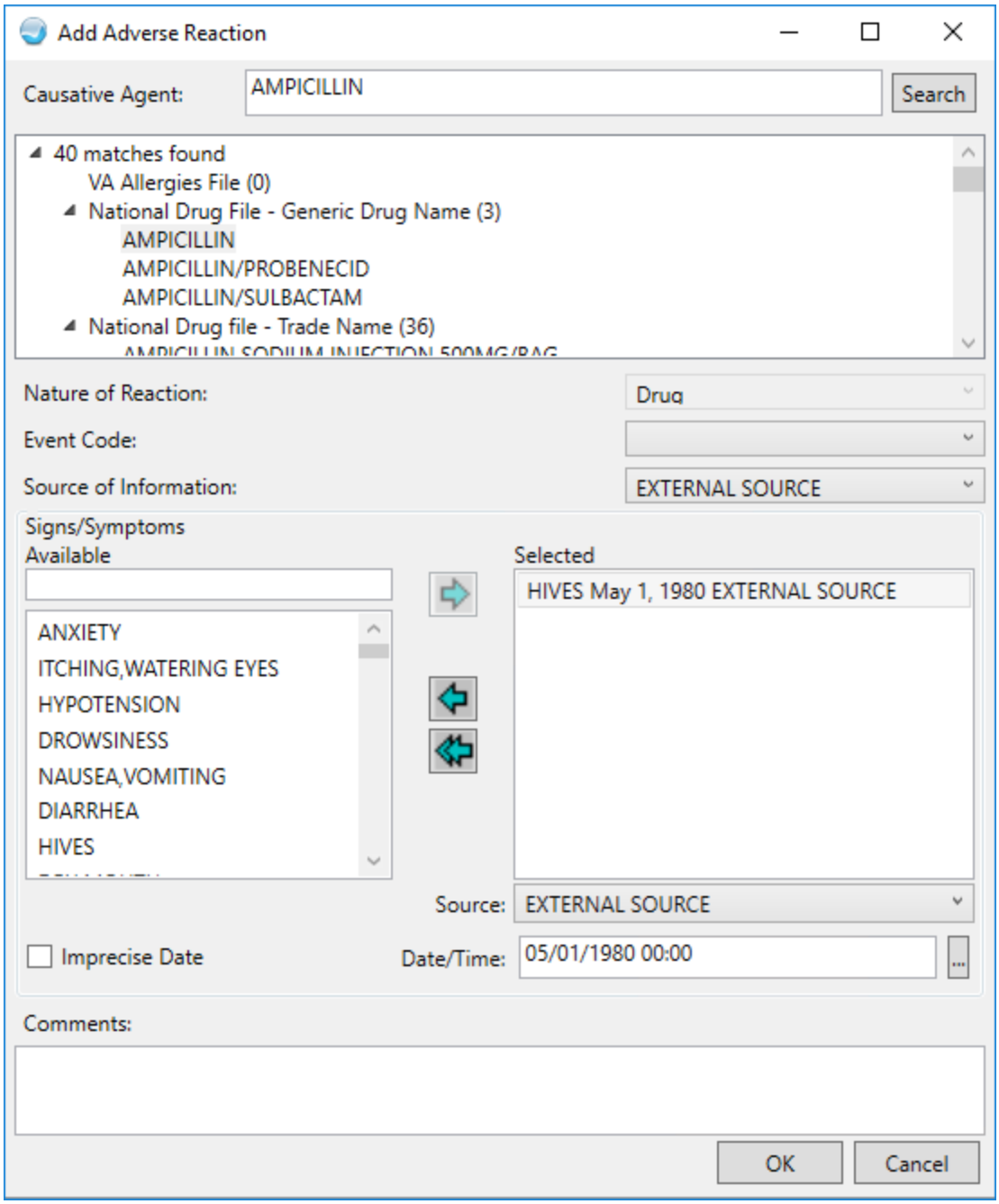

Figure 5-36: The Add Adverse Reaction window of the CIR Tool

If an adverse reaction is already documented for the selected causative agent, the following error message displays (Figure 5-37):

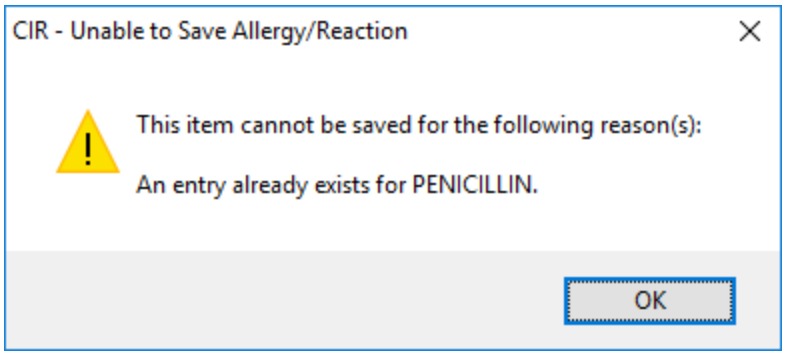

Figure 5-37: The CIR - Unable to Save Allergy/Reaction warning

In this case, you should select the action **CCDA: Do not add, redundant** as shown below.

After adding the information and clicking **OK**, the adverse reaction displays in the **Reconciled Adverse Reactions** pane with an action of **CCDA: Add**. This change will not be saved to the **Adverse Reactions** component until the session is finalized as described in Section 6.0.

5.2.2.2 CCDA: Do Not Add, Redundant

Selecting **CCDA: Do not add, redundant** adds a check mark in the **Clinical Document** pane and marks the adverse reaction in the **Reconciled Adverse Reactions** pane (Figure 5-38 and Figure 5-39).

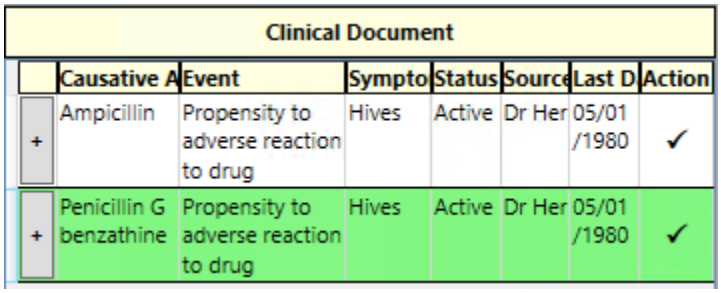

Figure 5-38: Clinical Document pane with check marks in Action column

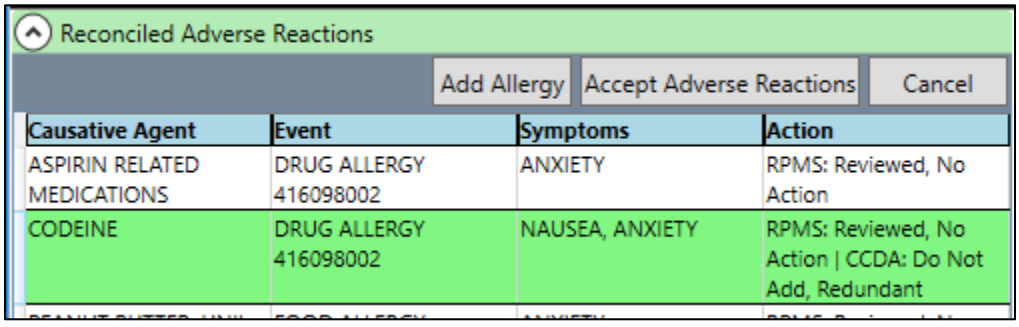

Figure 5-39: Reconciled Adverse Reactions pane with action CCDA: Do not add, redundant

5.2.2.3 CCDA: Do not add, not clinically significant

Selecting **CCDA: Do not add, not clinically significant** adds a check mark in the **Clinical Document** pane (Figure 5-40) and marks the reaction in the **Reconciled Adverse Reactions** pane (Figure 5-41).

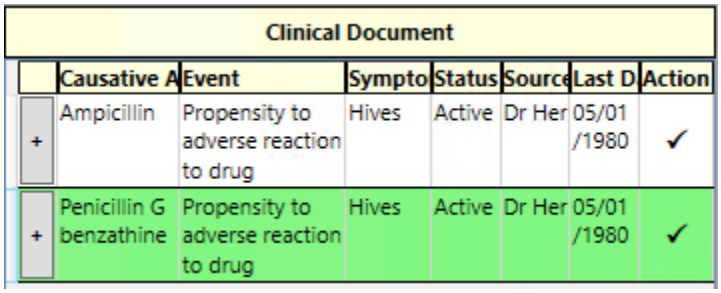

Figure 5-40: Clinical Document pane with check marks in Action column

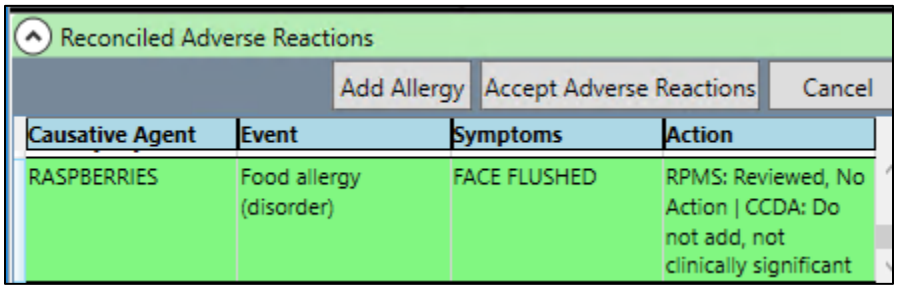

Figure 5-41: Reconciled Adverse Reactions pane with CCDA: Do not add, not clinically significant

5.2.2.4 View Details

Selecting **View Details** opens a new window (Figure 5-42) where the adverse reaction details are listed. If there is a matching adverse reaction in the RPMS pane, the details for that adverse reaction will also be shown.

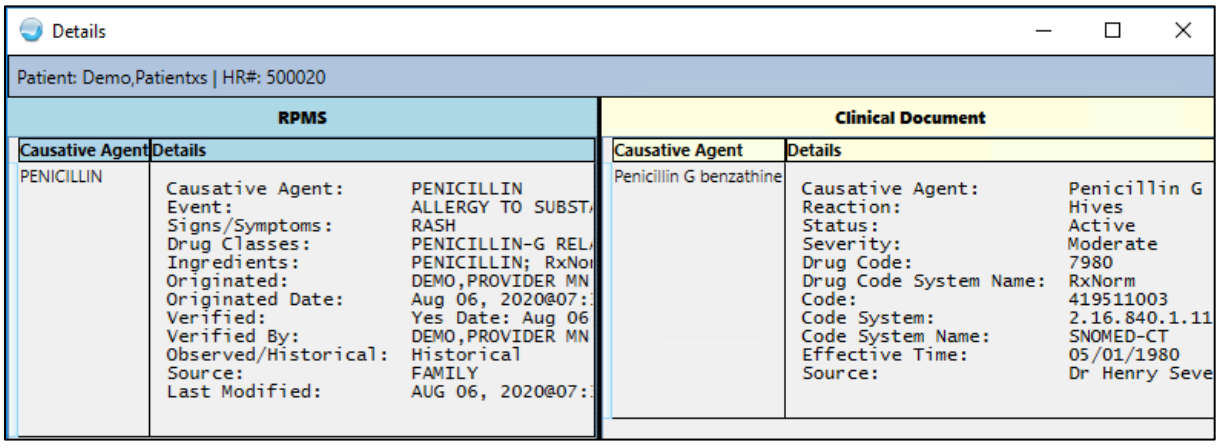

Figure 5-42: Details window for adverse reaction from Clinical Document pane and matching RPMS item

You may right-click the **Adverse Reaction** to see all the same actions as on the main window (Figure 5-43) except for View Details.

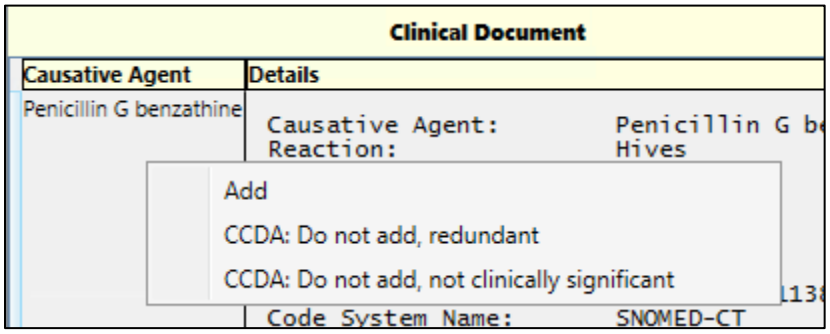

Figure 5-43: The right-click menu actions for the Clinical Document adverse reaction detail window

5.2.3 Review the Reconciled Items

Once all the adverse reactions have been reconciled, you may review the items and the actions taken in the **Reconciled Adverse Reactions** pane at the bottom of the main CIR Tool window (Figure 5-44). 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**.

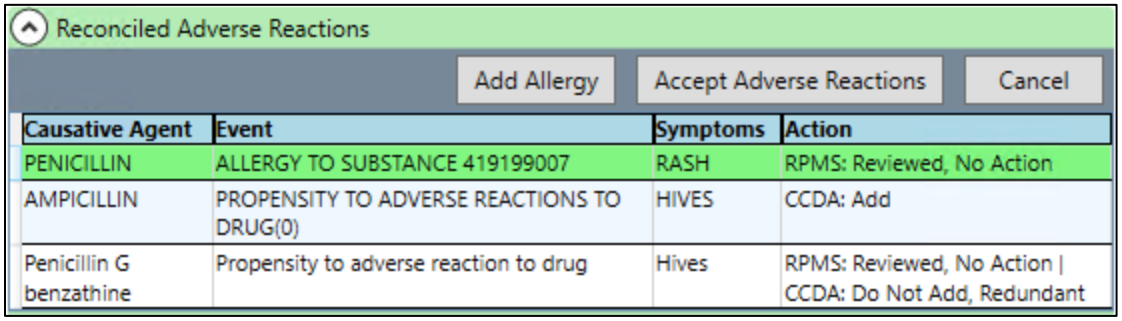

Figure 5-44: Reconciled Adverse Reactions pane with actions taken on each item

5.2.3.1 Add Allergy

If needed, you may add a completely new allergy or adverse reaction from this section by clicking the **Add Allergy** button. Clicking this button opens the **Add Adverse Reaction** window (Figure 5-45). You may search for a Causative Agent and complete the remaining information as usual.

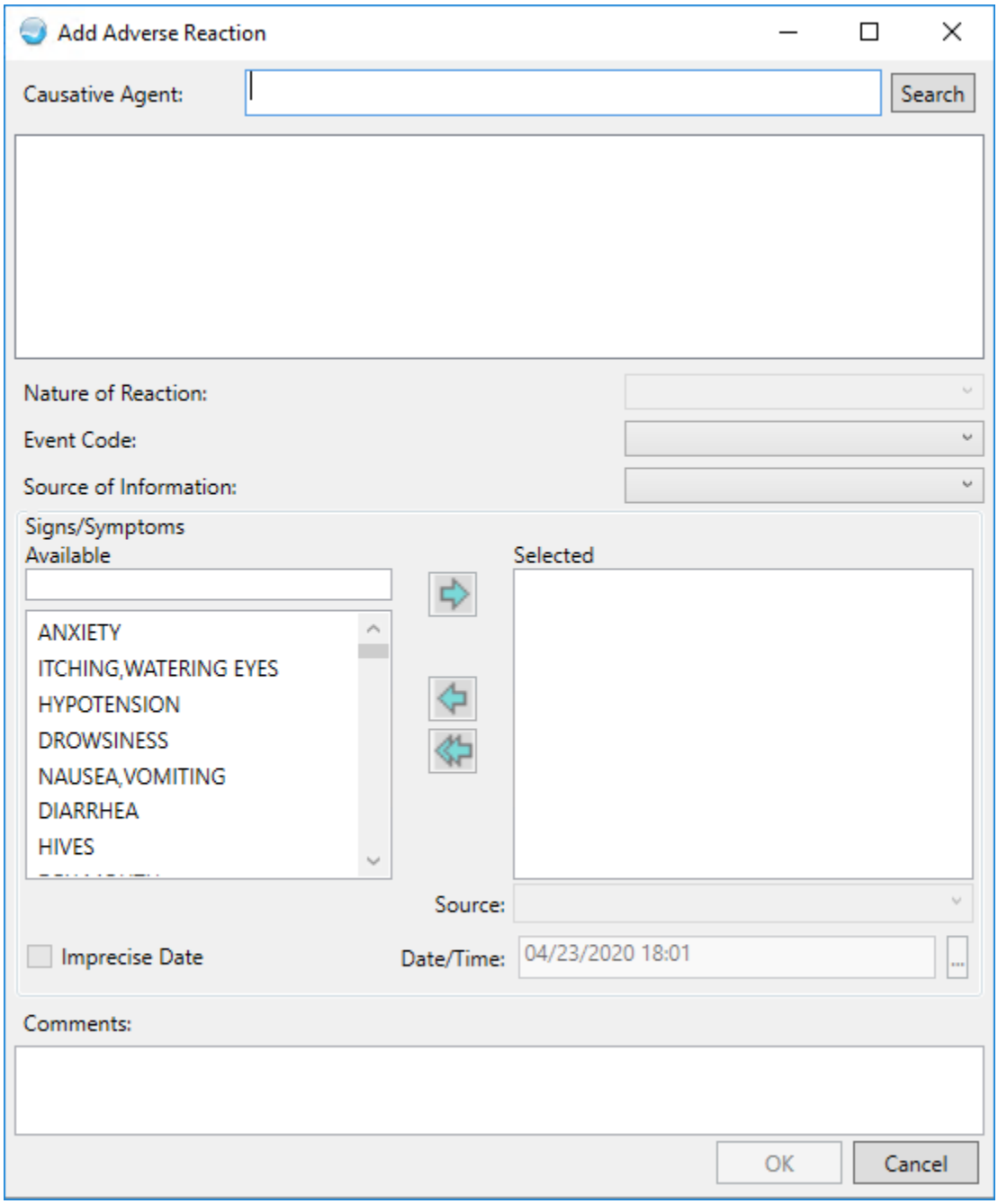

Figure 5-45: The CIR Tool Add Adverse Reaction window

There is the same check for duplicate causative agents using this option as when using the **Add** action on a Clinical Document adverse reaction in the **Adverse Reactions** tab.

5.2.3.2 Accept Adverse Reactions

Until the reconciled adverse reactions 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**. If you reconciled or will reconcile other items, use the **Accept All** button (see Section 6.1) after all reconciliation has been completed.

If the **Accept Adverse Reactions** button is used, but not all adverse reactions have been reviewed, the **Unreviewed items** warning (Figure 5-46) displays.

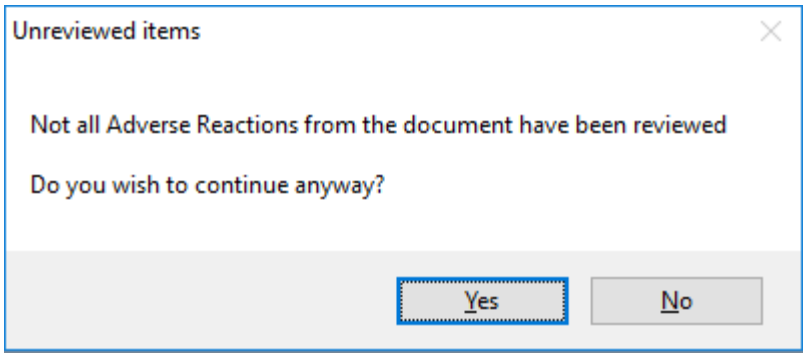

Figure 5-46: Unreviewed items warning for Adverse Reactions

Click **Yes** to continue anyway, or **No** to go back and review the remaining adverse reactions.

If there are no unreviewed adverse reactions or if you choose **Yes** on the **Unreviewed items** warning, the order check system will run against the patient's medications. If there are potential issues, the **Adverse Reaction Order Checking – Source: IHS** window (Figure 5-47) displays.

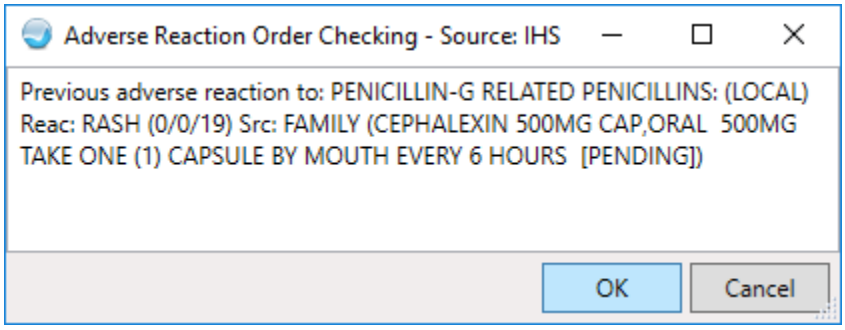

Figure 5-47: Adverse Reaction order Checking - Source: IHS window

If there are no potential issues or if you click the **OK** button on the warning, the **Review/Sign Changes** window (Figure 5-48) displays. The reconciled items will display along with any other items needing signature.

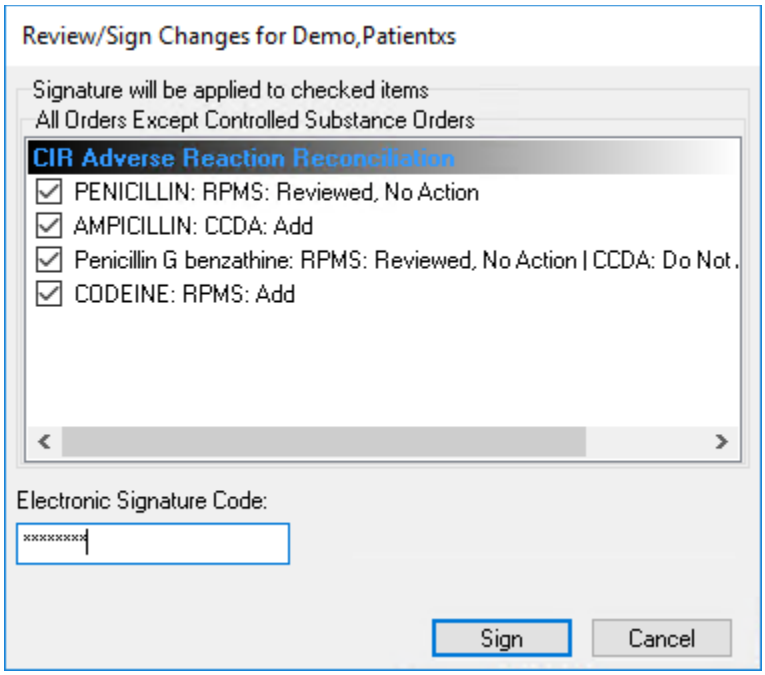

Figure 5-48: The Review/Sign Changes window with the CIR Adverse Reaction Reconciliation items

Enter your electronic signature and click **Sign**. The CIR Tool information for Adverse Reactions will reset and the CCDA document will reflect the reconciliation type and date.

5.2.3.3 Cancel

If you do not want to complete the reconciliation of the adverse reactions, or if you want to undo your changes for the adverse reactions only, click the **Cancel** button. There is no confirmation of this action. Clicking **Cancel** removes all the previously selected actions for Adverse Reactions immediately. If you want to reset the entire CIR Tool, use the **Cancel All** button instead.

5.3 Reconcile Medications

To reconcile the Medications, click the **Medications** tab. Like the **Problems** and **Adverse Reactions** tabs, this tab contains the **RPMS** pane and the **Clinical Document** pane. The **RPMS** pane displays the medications recorded in the RPMS Pharmacy package. It has the columns **Type**, **Medication**, **Description**, **Status**, and **Last Date**. The Clinical Document pane contains the medication information from the selected CCDA document and has columns **Medication**, **Description**, **Status**, **Source**, **Last Date**, and **Action**. The data in each pane may be sorted by any column as described in Section 4.4.

Clicking a medication in either pane will highlight any matching item in the other pane, and in the **Reconciled Medications** pane (Figure 5-49) at the bottom of the CIR Tool window. A match for a medication is when the code system and code match exactly, or if the name of the medications match exactly (case-insensitive, but matching does include spaces so that 500mg and 500 mg are considered different). Keep in mind that if the lists are long, the highlighted item in the other list may be out of sight. Scroll through the lists as needed to see if there are matching items. You may control-click to remove the highlighting.

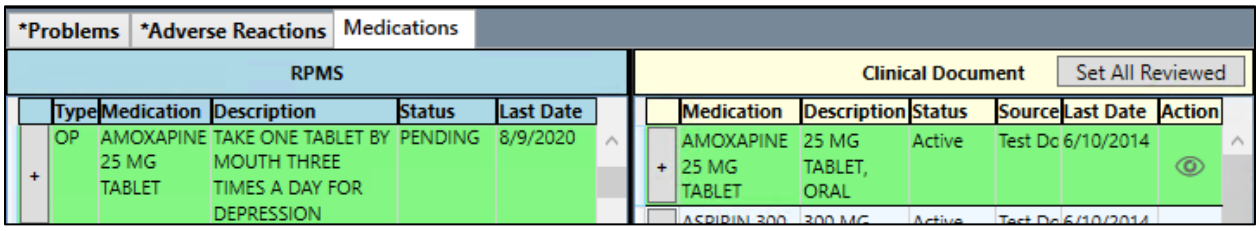

Figure 5-49: Medications tab with matching line items highlighted

Click the plus sign (+) next to any given medication in either pane to see the details of the medication (Figure 5-50). The details may contain information such as schedule, route, sig, code and code system, quantity, refills, status, and start date. Click a second time to close the details.

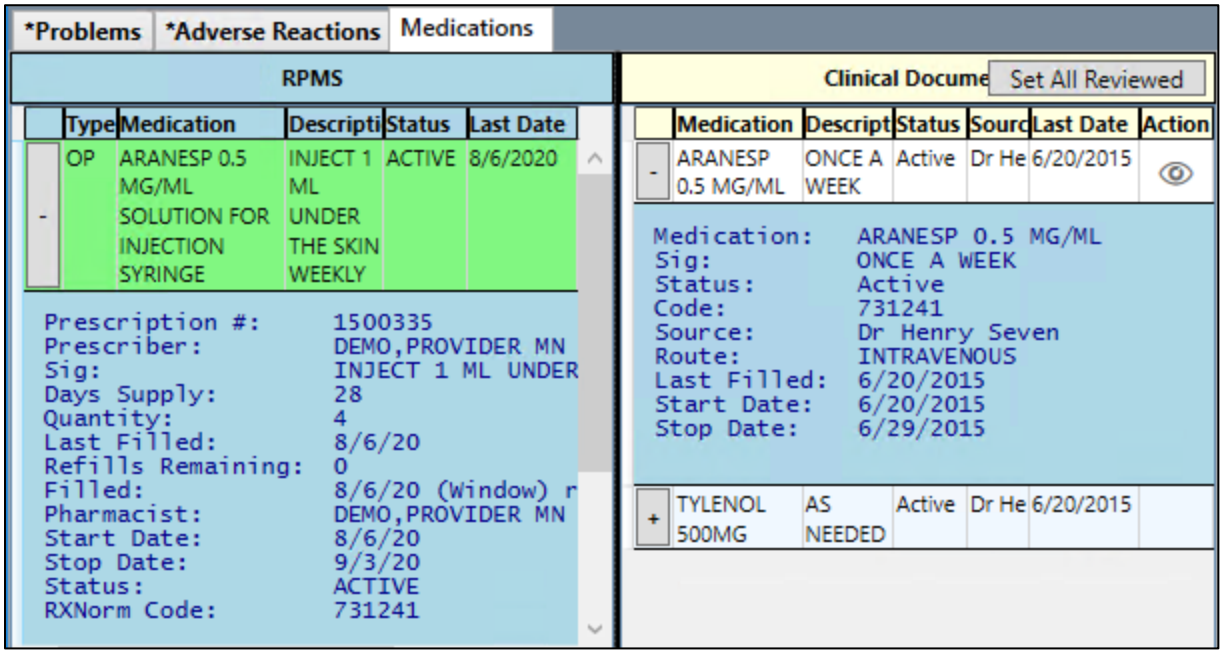

Figure 5-50: A portion of the CIR Tool is shown with medication details showing

Right-click a medication to see the actions available. Right-click actions are described in the following sections.

5.3.1 RPMS Medications

For RPMS medications, right-click actions (Figure 5-51) include:

- **Change**
- **Discontinue**
- **Reviewed**
- **No Action**
- **Renew**
- **View Details**

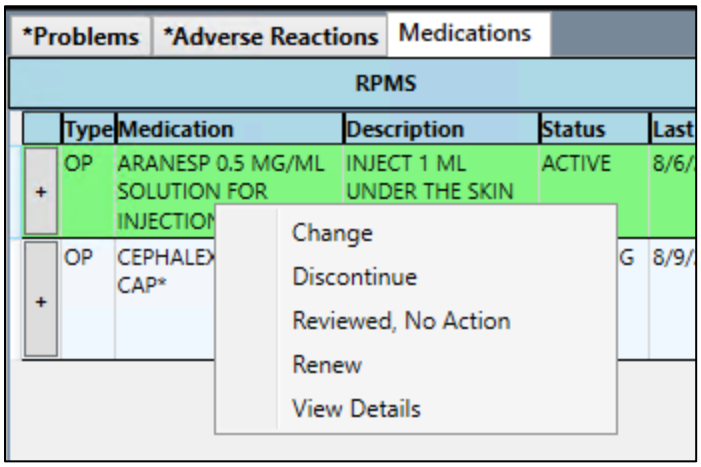

Figure 5-51: A portion of the CIR Tool with right-click actions for RPMS medications

5.3.1.1 Change

Selecting **Change** opens the **Edit Medication** window (Figure 5-52). In this window, you may change all fields except the medication.

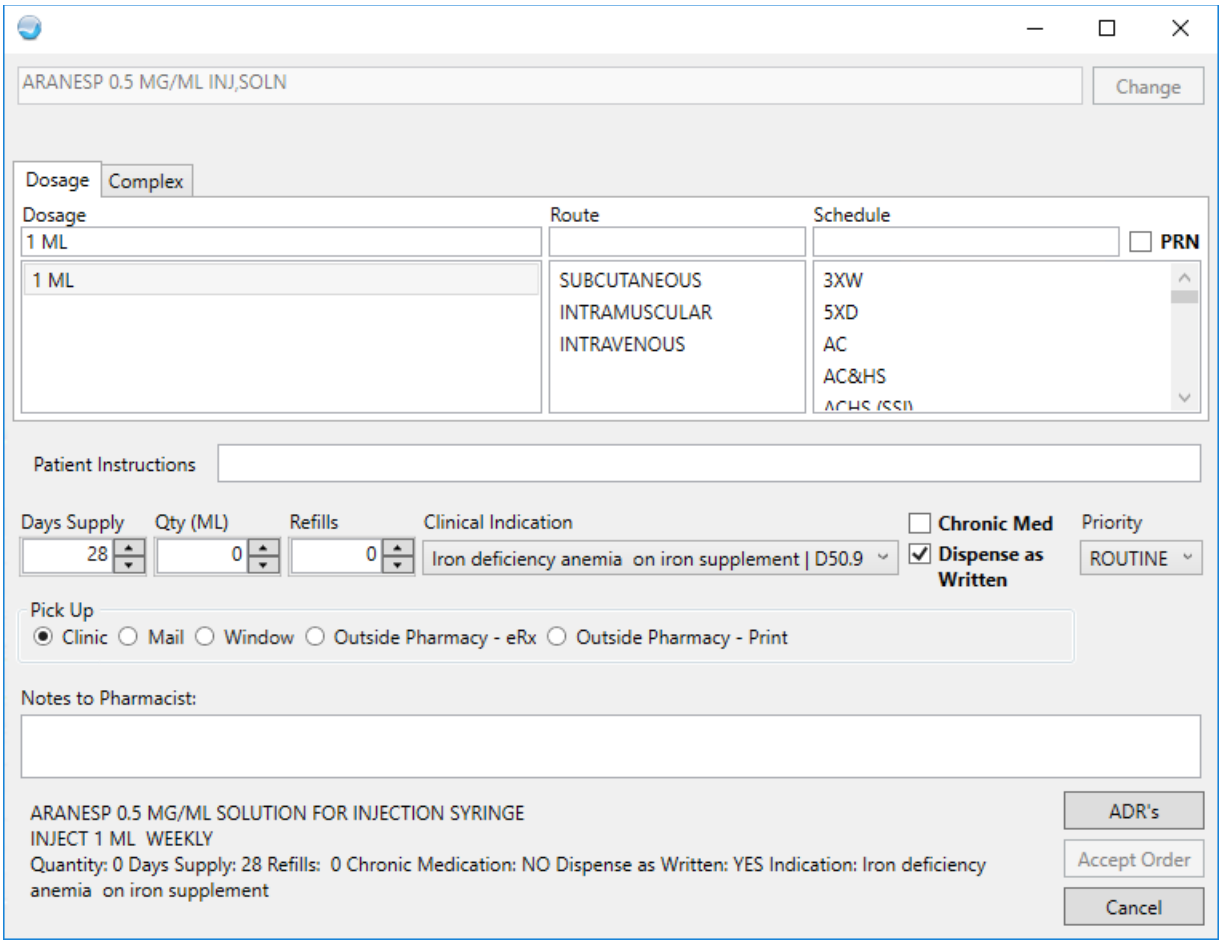

Figure 5-52: The CIR Tool Edit Medication window with prepopulated information

The CIR Tool medication order dialogs will contain the same validations for doses, quantities, and other required fields as occurs with medication ordering outside of the CIR Tool.

Once the needed changes have been made, click **Accept Order** to save the changes to the **Reconciled Medications** pane. The order is created and will be presented for signature when the session is finalized as described in Section 6.0.

5.3.1.2 Discontinue

Selecting **Discontinue** opens the **Discontinue/Cancel Orders** window (Figure 5-53). This window shows the selected order information at the top, and potential reasons at the bottom. You may select an appropriate reason and then click **OK** to discontinue the order.

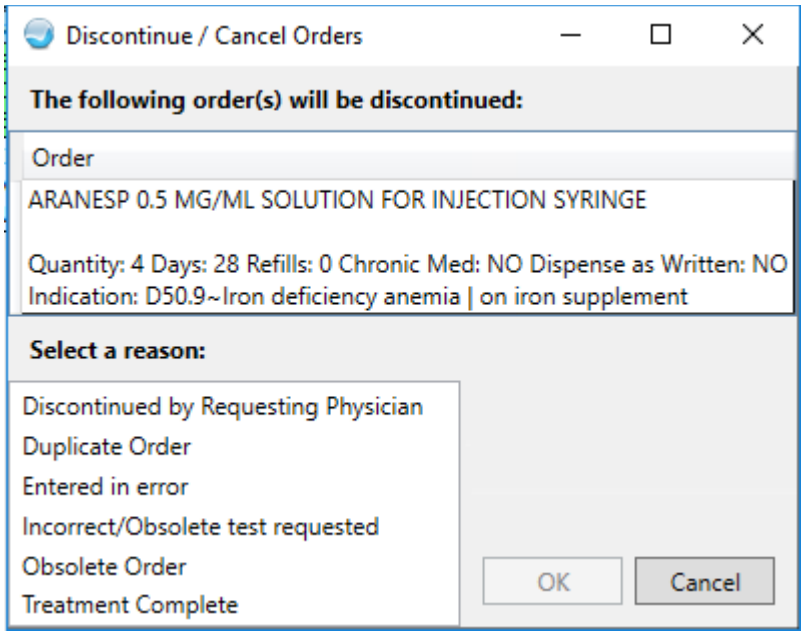

Figure 5-53: The CIR Tool Discontinue/Cancel Orders window with order details and reason selection

Once the appropriate reason is selected, click **OK** to save the changes to the **Reconciled Medications** pane. The changes will not be saved to the Medications component until the session is finalized as described in Section 6.0.

5.3.1.3 Reviewed, No Action

Selecting **Reviewed, No Action** marks the item in the R**econciled Medications** pane (Figure 5-54). For ease of documentation, this action is the default for all RPMS medications, so you only need to select it if some other action was selected first and the user wants to go back to the **Reviewed, No Action** option.

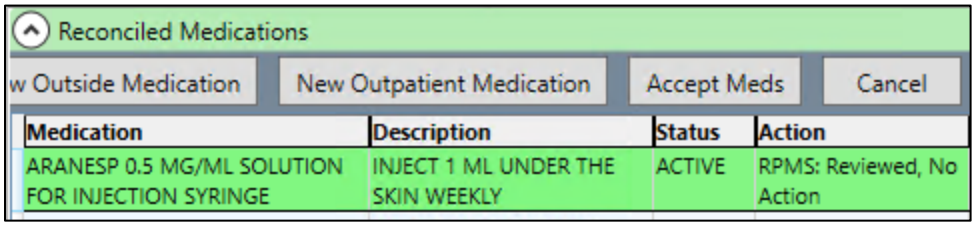

Figure 5-54: Reconciled Medications in the CIR Tool with Aspirin marked RPMS: Reviewed, No Action

5.3.1.4 Renew

Selecting **Renew** allows you to renew a medication order in the same manner as may be done in the **Medication Management** component. If the medication is ineligible to be renewed (e.g., the order is in a pending state or is an outside medication) the **Unable to Renew Order** warning displays (Figure 5-55).

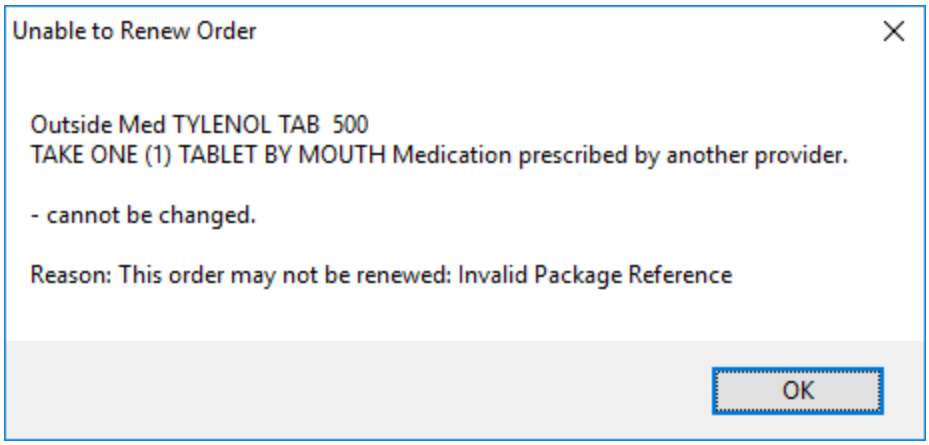

Figure 5-55: Unable to Renew Order warning

Selecting **Renew** on an eligible medication triggers the Order Checking system, and if an issue exists the **Order Checking – Source** window displays (Figure 5-56. If the reaction is serious, you may need to type in an override reason.

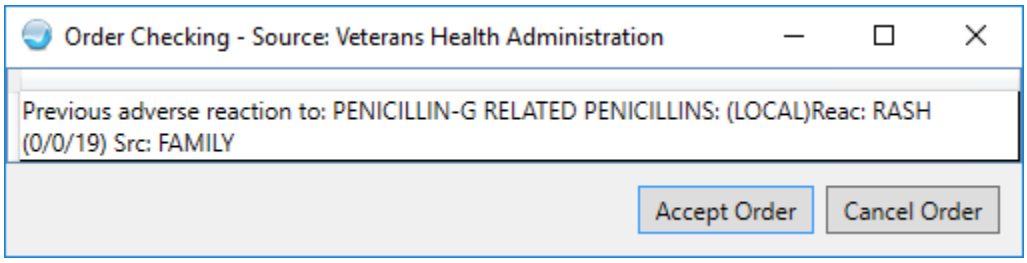

Figure 5-56: Order Checking – Source window

To cancel the renewal, click **Cancel Order**. To continue to renew the medication, click **Accept Order**. If there are no order checking issues or if you click the **Accept Order** button, the **Renew Order** window (Figure 5-57) opens. You may adjust the number of refills and pick up location but may not edit any other field using the renew function.

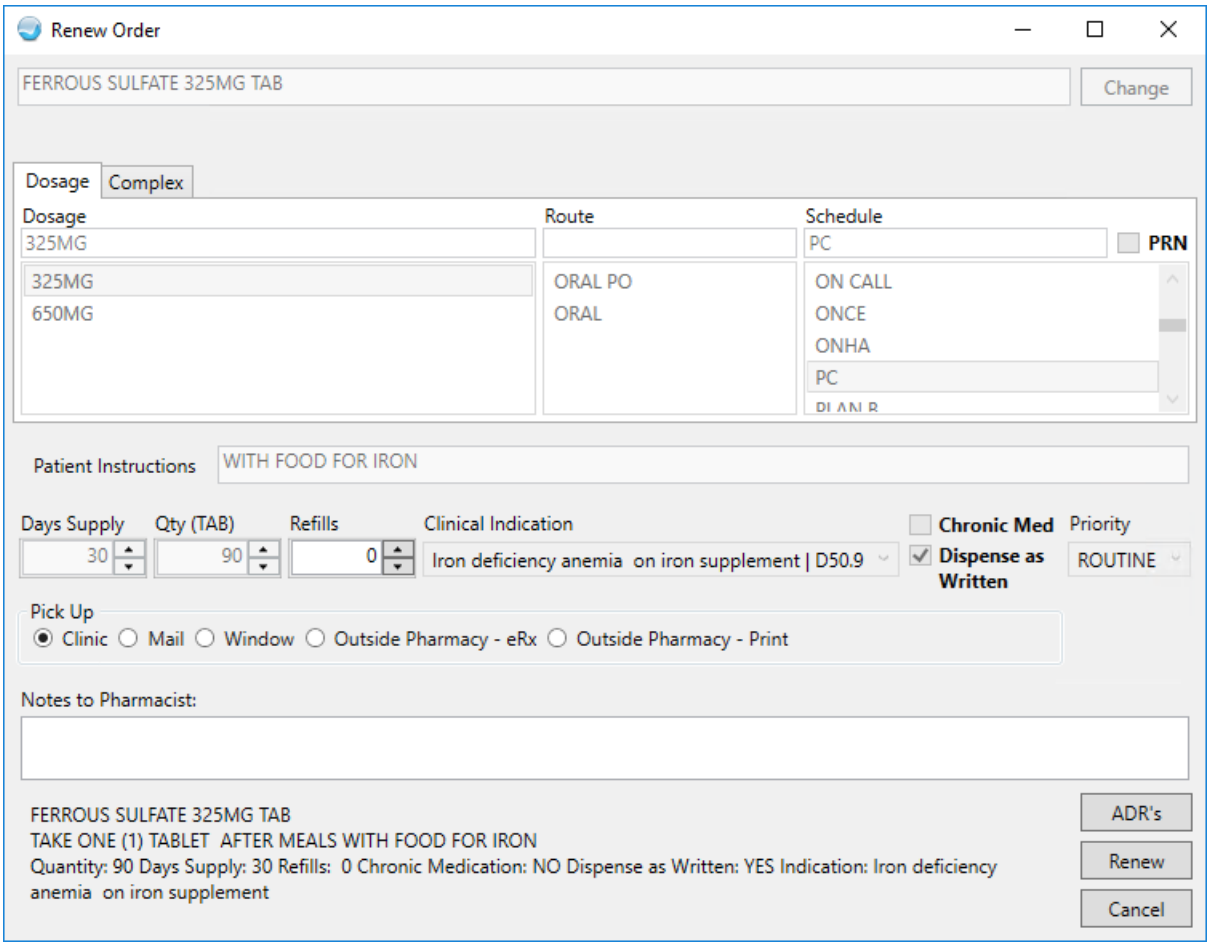

Figure 5-57: The CIR Tool Renew Order window with the Refills and Pick Up fields active

Once the information is correct, click **Renew** to save the changes to the **Reconciled Medications** pane. The changes will not be saved to the Medications component until the session is finalized as described in Section 6.0.

5.3.1.5 View Details

Selecting **View Details** opens a new window (Figure 5-58) where the medication details are listed. If there is a matching medication in the **Clinical Document** pane, the details for that medication will also be shown.

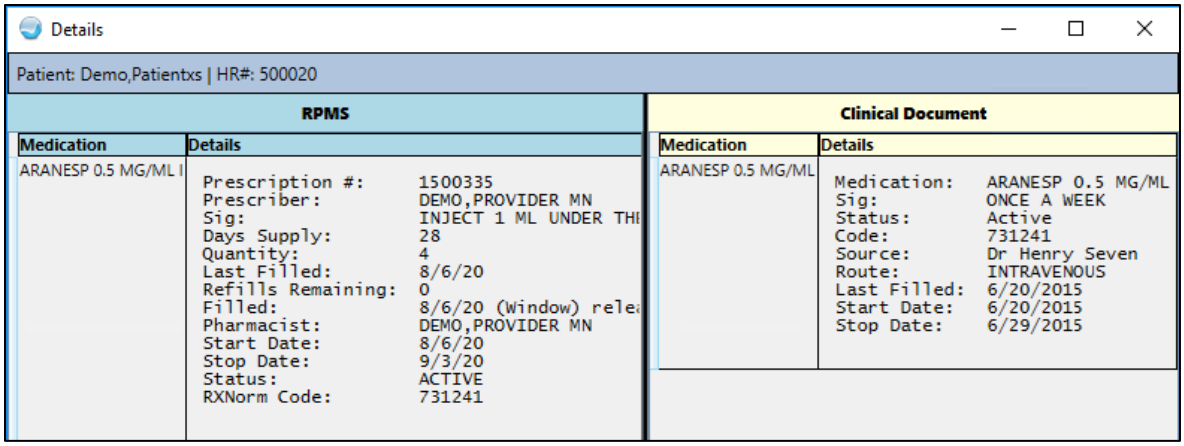

Figure 5-58: Details window for medications in CIR Tool

You may right-click the adverse reaction to see all the same actions as on the main window except View Details (Figure 5-59).

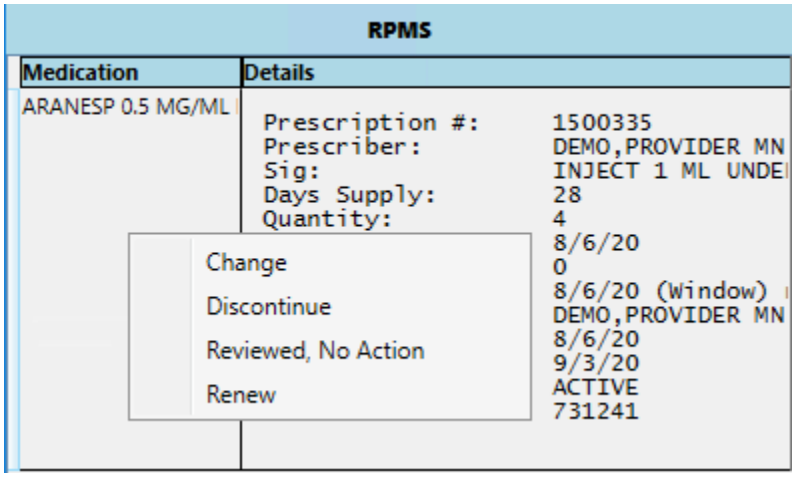

Figure 5-59: Right-click actions on medication Details window in CIR Tool

5.3.2 Clinical Document Medications

For Clinical Document medications, right-click actions include (Figure 5-60):

- **Add Outside**
- **Add OP**
- **Do Not Add, Discontinued**
- **Do Not Add, Redundant**
- **View Details**

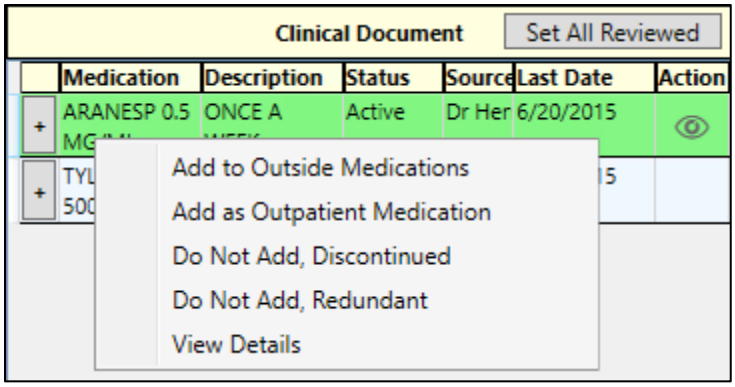

Figure 5-60: A portion of the CIR Tool with right-click actions for Clinical Document medications

If there are any unreviewed medications, the **Set All Reviewed** button is visible. Clicking this button sets all the clinical document medications to reviewed but does not assign an action to them.

5.3.2.1 Add to Outside Medications

Selecting **Add to Outside Medications** allows you to document a medication in the EHR without creating an order to be filled by a pharmacy. This selection will trigger the polypharmacy order check and displays the warning (Figure 5-61) if the patient exceeds the locally set number of medications.

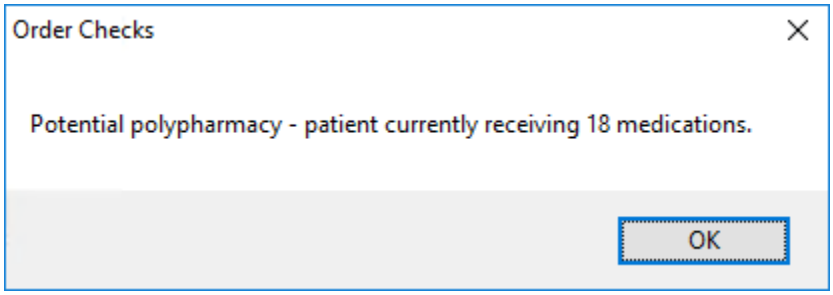

Figure 5-61: Order Checks polypharmacy warning

If there is no polypharmacy warning or if you click **OK** on the warning, there may be an additional warning (Figure 5-62) if the medication cannot be matched to an active entry in the RPMS Drug file.

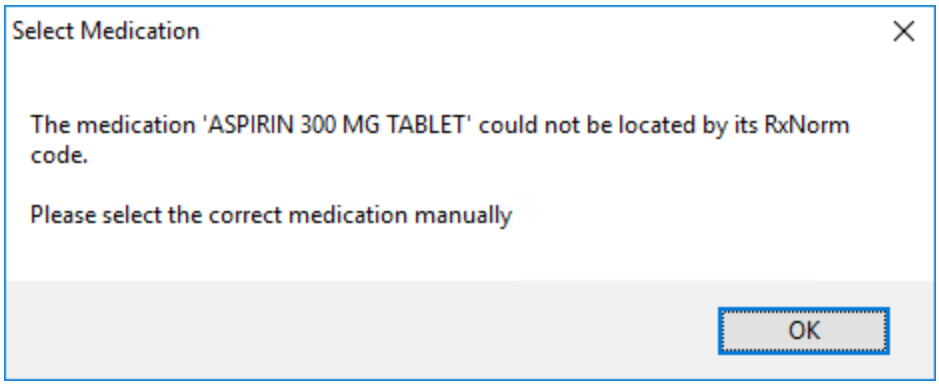

Figure 5-62: Select medication warning

Click **OK** to continue. The **Search Medications** window (Figure 5-63) opens with the medication name already populated.

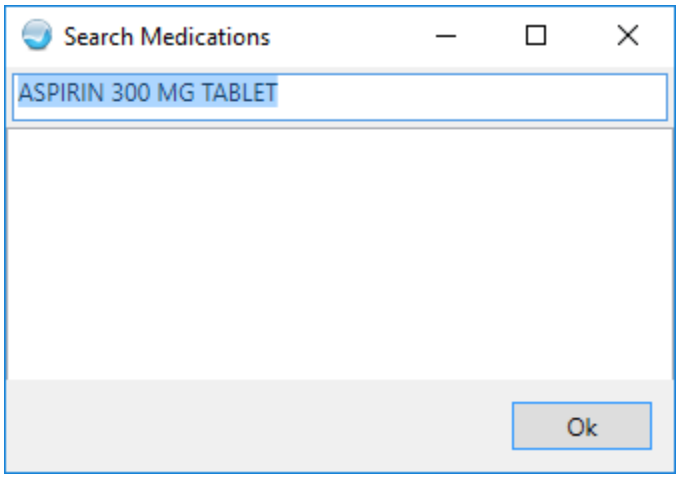

Figure 5-63: Search Medications window

You may need to adjust the search text to find the appropriate medication. If the medication is not present in the drug file, you should exit the process and contact your pharmacy informaticist or person who maintains the drug file. If the medication is in the drug file, select it to continue.

If the medication was able to be matched or you manually selected a medication, the **Add Non-VA Medication** window (Figure 5-64) opens. Only the medication is required here, but you should add as much detail as is available.

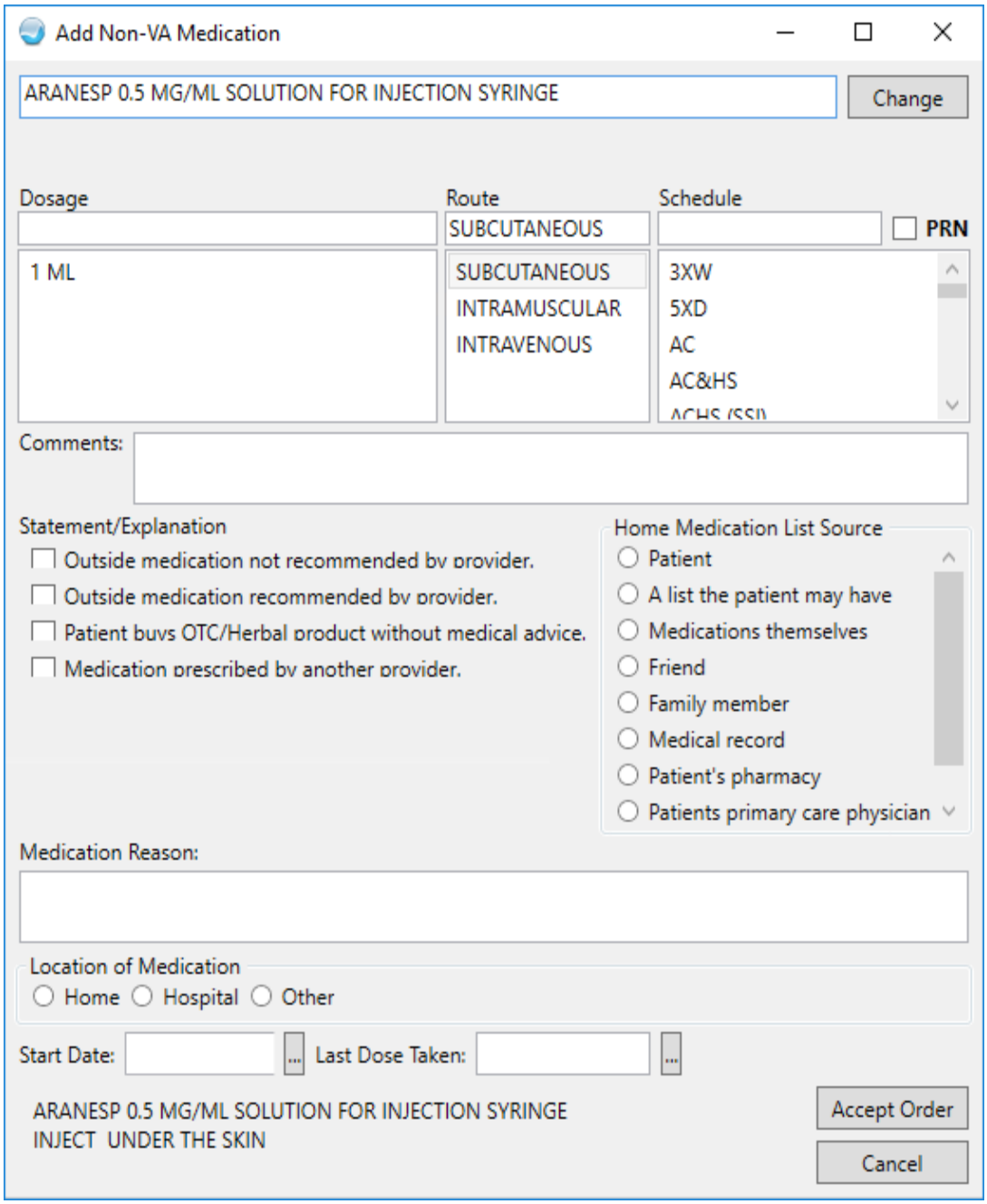

Figure 5-64: The CIR Tool Add Non-VA Medication window

The CIR Tool medication order dialogs contain the same validations for doses, quantities, and other required fields as occurs with medication ordering outside of the CIR Tool.

After adding the information and clicking **Accept Order**, additional order check information may display if applicable. The added medication displays in the **Reconciled Medications** pane with an action of **CCDA: Add Outside**. The order is created and will be presented for signature when the session is finalized as described in Section 6.0.

5.3.2.2 Add as Outpatient Medication

Selecting **Add as Outpatient Medication** allows you to create a medication order in the EHR that will ultimately be filled by a pharmacy. This selection will trigger the order checks and medication look ups as describe in Section 5.2.6.1.

Once any warnings are handled or if no warnings were given, the **Add Outpatient Medication** window (Figure 5-65) opens with as much information filled in as possible. The order must be completed in the same way an order would be completed outside the CIR Tool.

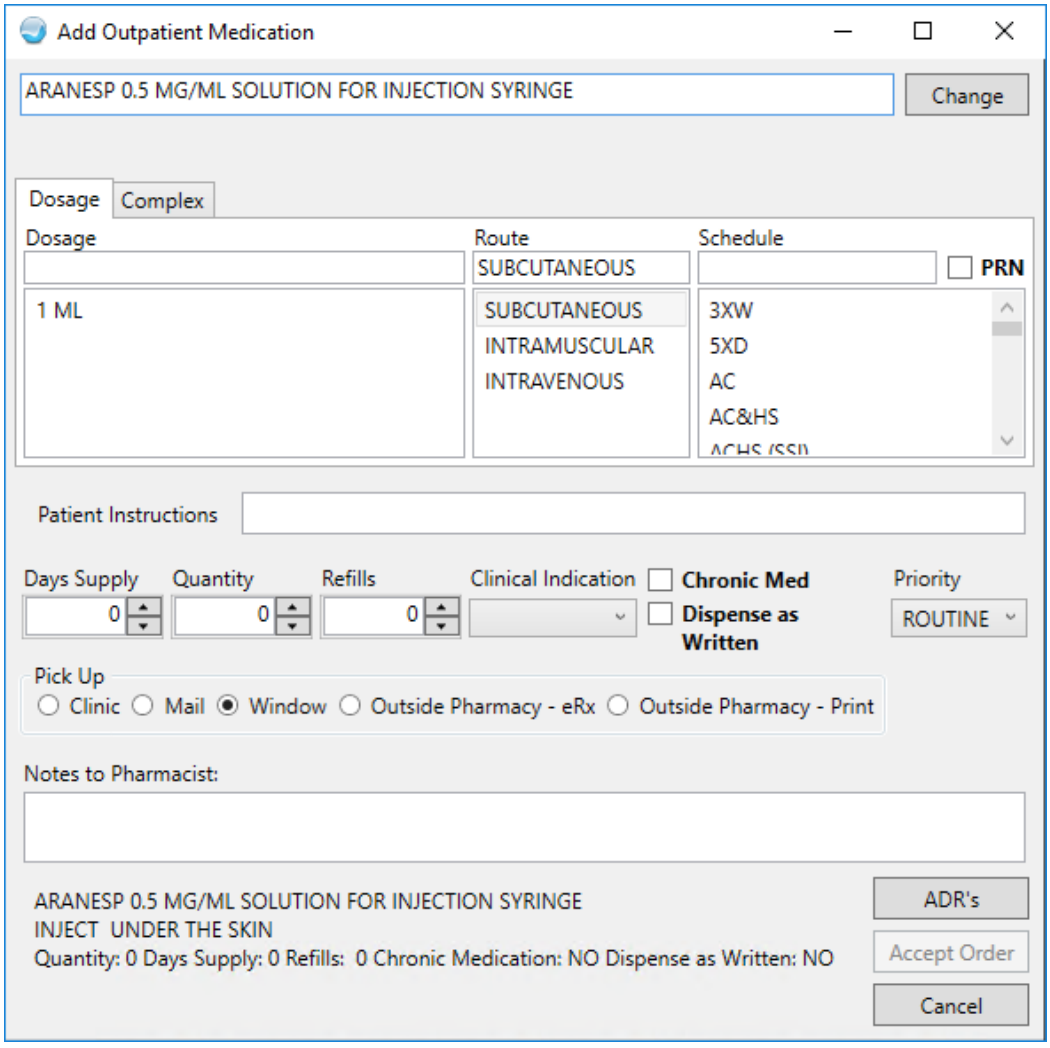

Figure 5-65: The CIR Tool Add Outpatient Medication window

The **CIR Tool Medication Order** dialogs contain the same validations for doses, quantities, and other required fields as occurs with medication ordering outside of the CIR Tool.

After adding the information and clicking **Accept Order**, the medication will display in the **Reconciled Medications** pane with an action of **CCDA: Add Outpatient**. The order is created and will be presented for signature when the session is finalized as described in Section 6.0.

5.3.2.3 Do Not Add, Discontinued

Selecting **Do Not Add, Discontinued** adds a check mark in the **Clinical Document** pane (Figure 5-66) and marks the medication in the **Reconciled Medications** pane (Figure 5-67).

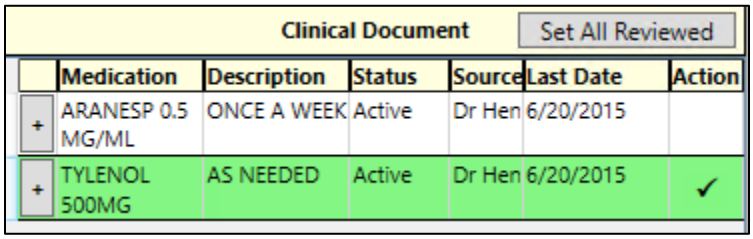

Figure 5-66: Clinical Document pane with check mark in Action column

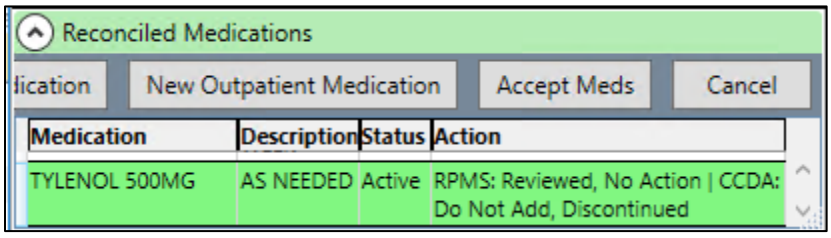

Figure 5-67: Reconciled Medications pane with action CCDA: Do Not Add, Discontinued

5.3.2.4 Do Not Add, Redundant

Selecting **Do Not Add, Redundant** marks the medication (Figure 5-68 and Figure 5-69) in the **Reconciled Medications** at the bottom.

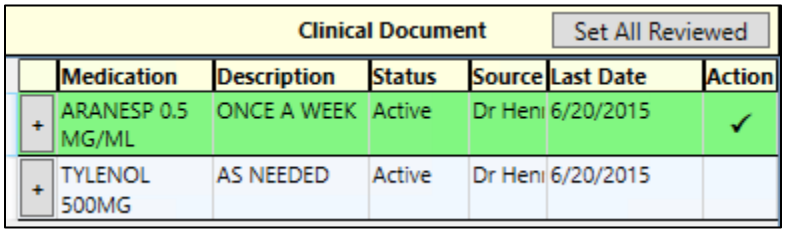

Figure 5-68: Clinical Document pane with check mark in Action column

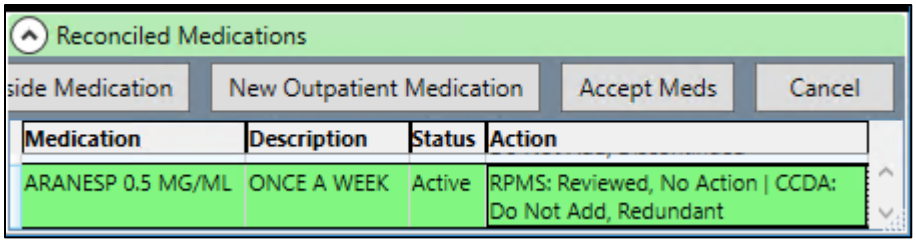

Figure 5-69: Reconciled Medications section showing action CCDA: Do Not Add, Redundant

5.3.2.5 View Details

Selecting **View Details** opens a new window where the medications details are listed. If there is a matching medication in the RPMS pane (Figure 5-70), the details for that medication will also be shown.

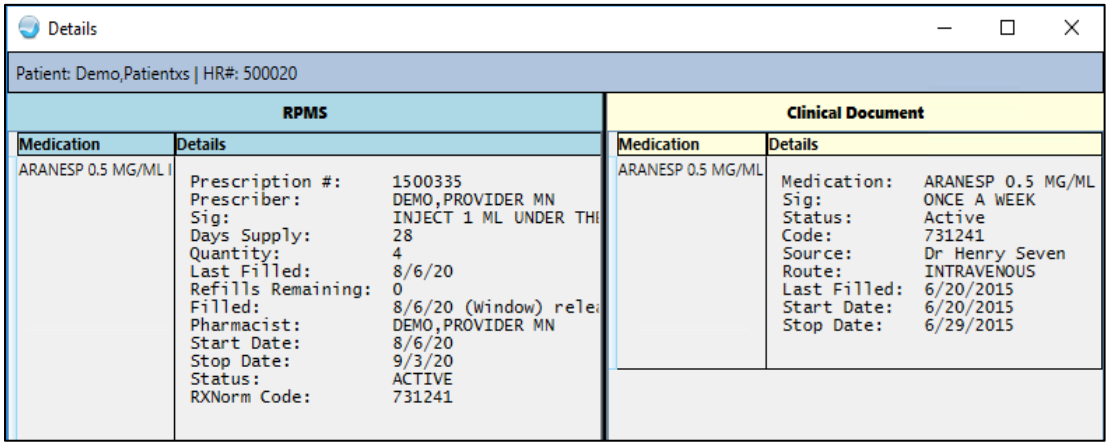

Figure 5-70: Details window for medications in CIR Tool

You may right-click the medication to see all the same actions as on the main window except for View Details (Figure 5-71).

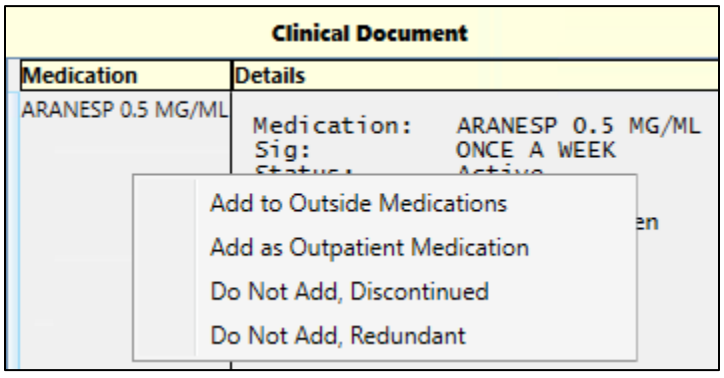

Figure 5-71: Right-click actions on medication Details window in CIR Tool

5.3.3 Review the Reconciled Items

Once all the medications have been reconciled, you may review the items and the actions taken in the **Reconciled Medications** pane (Figure 5-72) 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**.

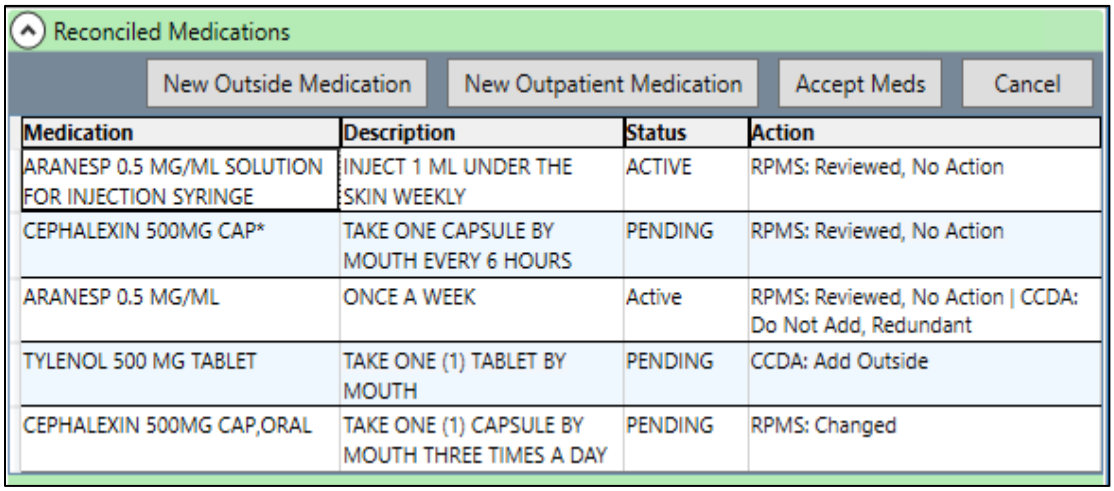

Figure 5-72: The Reconciled Medications section of the CIR Tool with various actions listed

5.3.3.1 New Outside Medication

If needed, you may add a completely new Outside medication from this section by clicking the **New Outside Medication** button. Clicking this button opens a blank **Add Non-VA Medication** window (Figure 5-73). You may search for a medication and complete the remaining information as usual.

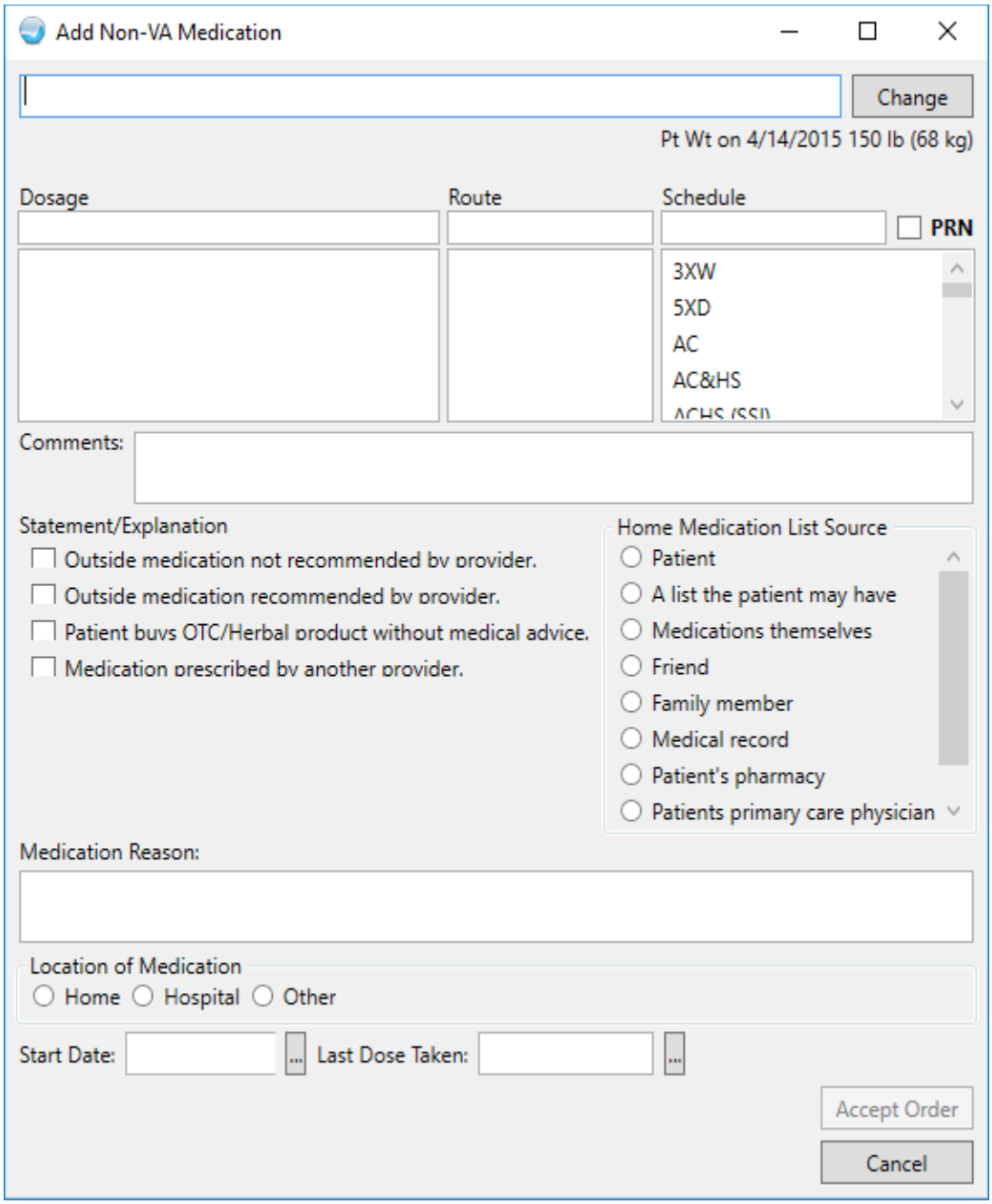

Figure 5-73: The CIR Tool Add Non-VA Medication window

The CIR Tool medication order dialogs contain the same validations for doses, quantities, and other required fields as occurs with medication ordering outside of the CIR Tool.

5.3.3.2 New Outpatient Medication

If needed, you may add a completely new Outpatient medication from this section by clicking the **New Outpatient Medication** button. Clicking this button opens a blank **Add Outpatient Medication** window (Figure 5-74). You may search for a medication and complete the remaining information as usual.

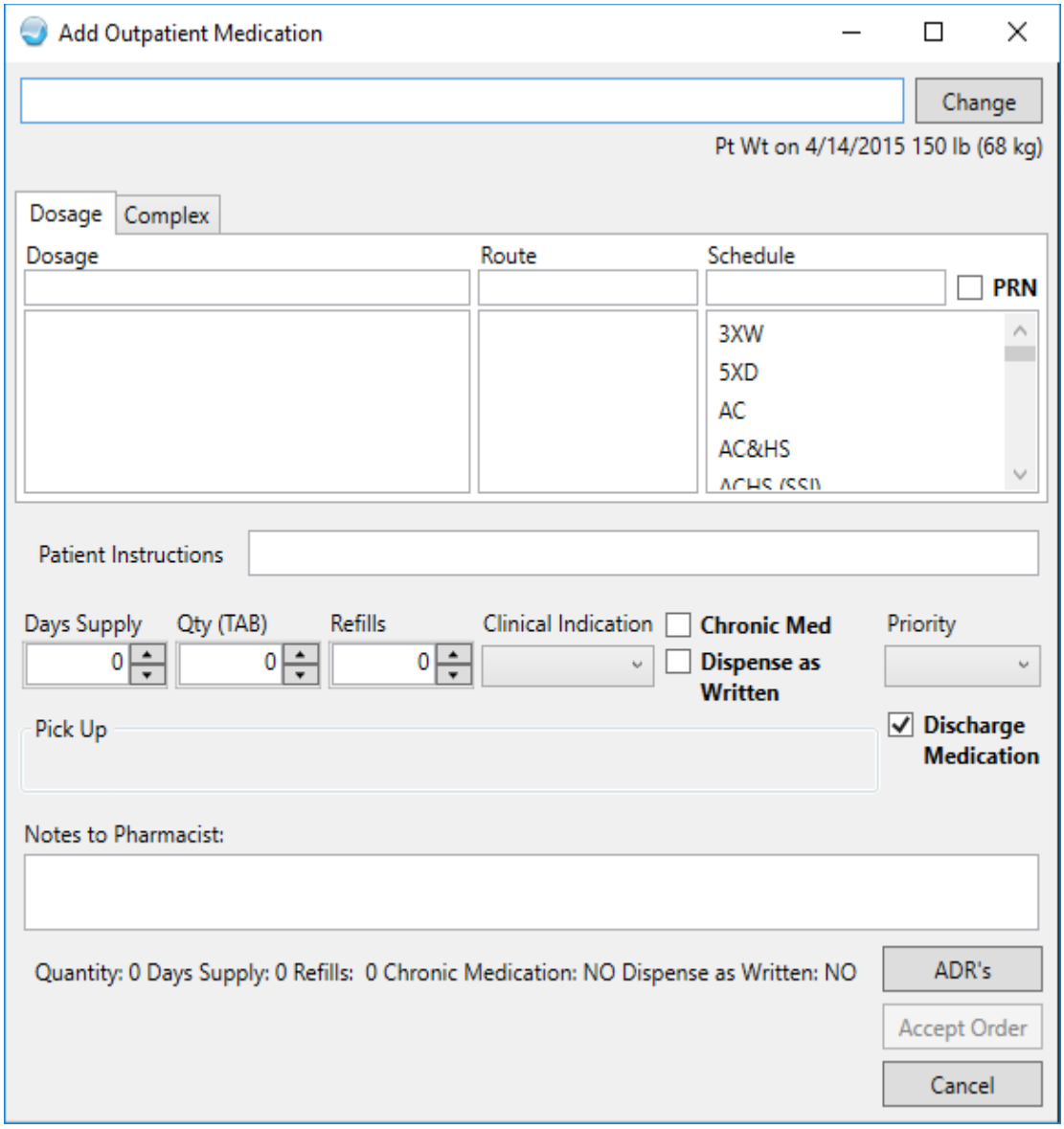

Figure 5-74: The CIR Tool Add Outpatient Medication window

The CIR Tool medication order dialogs contain the same validations for doses, quantities, and other required fields as occurs with medication ordering outside of the CIR Tool.

5.3.3.3 Accept Meds

Until the reconciled medications are accepted, the changes are not finalized to the record. To accept all the reconciled medication information and not the problem and adverse reaction information, click **Accept Meds**. If you reconciled or will reconcile other items, use the **Accept All** button (see Section 6.1) after all reconciliation has been completed.

When the **Accept** button is used but not all medications have been reviewed, the **Unreviewed items** warning (Figure 5-75) displays.

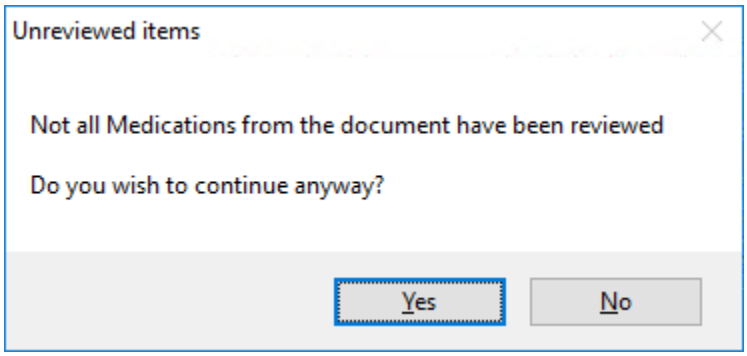

Figure 5-75: Unreviewed items warning for Medications

Click **Yes** to continue anyway, or **No** to go back and review the remaining medications.

If there are no unreviewed medications or if you choose **Yes** on the **Unreviewed items** warning, the **Review/Sign Changes** window (Figure 5-76) displays. The reconciled items display along with any other items needing signature.

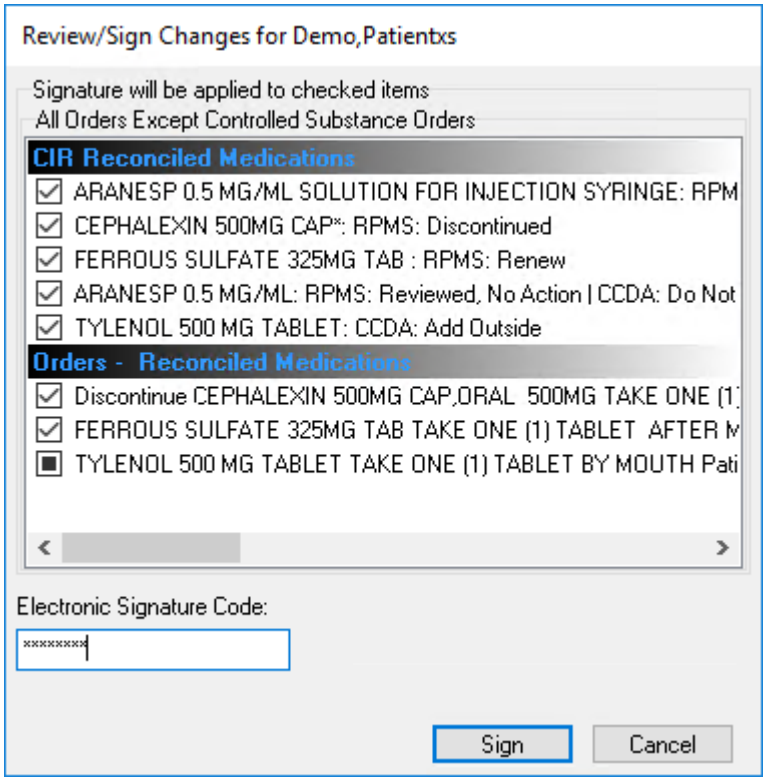

Figure 5-76: Review/Sign Changes with the CIR Reconciled Medications and Orders

Enter your electronic signature and click **Sign**. The CIR Tool information for Medications resets and the CCDA document reflects the reconciliation type and date.

5.3.3.4 Cancel

If you do not want to complete the reconciliation of the medications, or if you want to undo your changes for the medications only, click the **Cancel** button. There is no confirmation of this action. Clicking **Cancel** removes all the previously selected actions for medications immediately. If you want to reset the entire CIR Tool, use the **Cancel All** button instead.

6.0 Finalize the Reconciliation

6.1 Accept All

If you reconciled items in more than one tab, use the **Accept All** button when you are finished to finalize the session and sign the information and orders.

If you click **Accept All** and there is data on other tabs that has not been reviewed, the **Not all sections are reviewed** warning (Figure 6-1) displays.

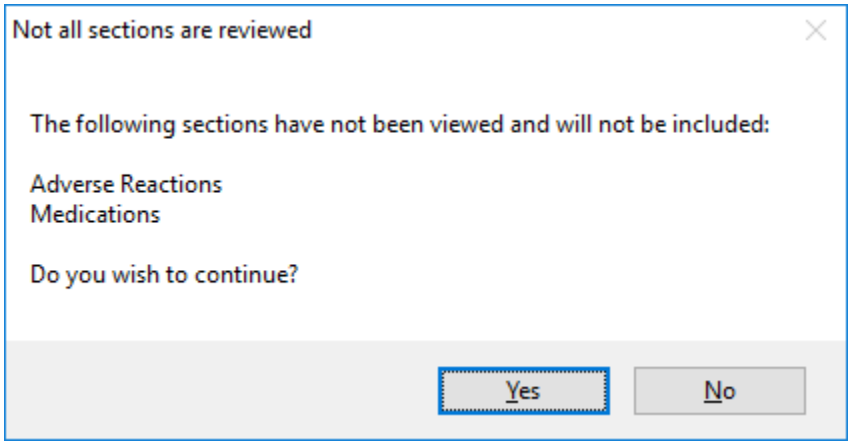

Figure 6-1: Not all sections are reviewed warning

Click **Yes** to continue with accepting only the reconciled data or click **No** to reconcile other data on other tabs.

If all data was reviewed or if you click **Yes** on the **Not all sections reviewed** warning, the Order Check system will fire. If any issues are found, the **Adverse Reaction Order Checking – Source** window (Figure 6-2) displays.

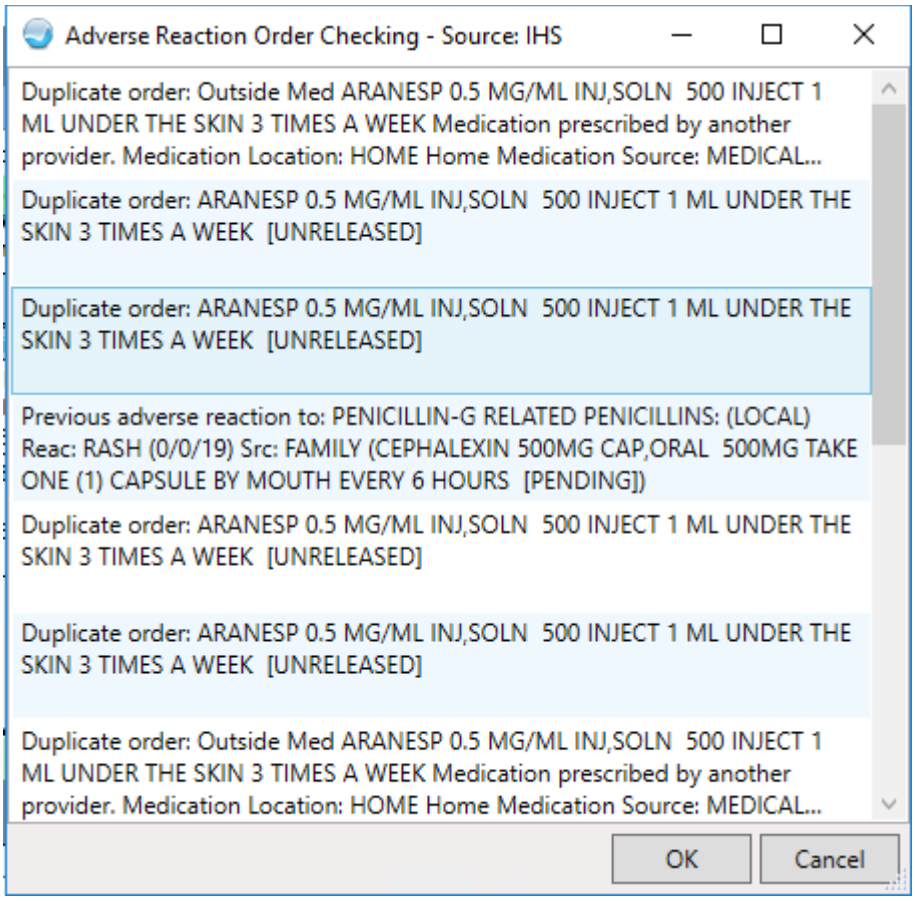

Figure 6-2: The Adverse Reaction Order Checking – Source window

Click **OK** to continue or **Cancel** to return to the CIR Tool. If you click **OK**, the **Review/Sign Changes** window (Figure 6-3) displays. The reconciled items display along with any other items needing signature.

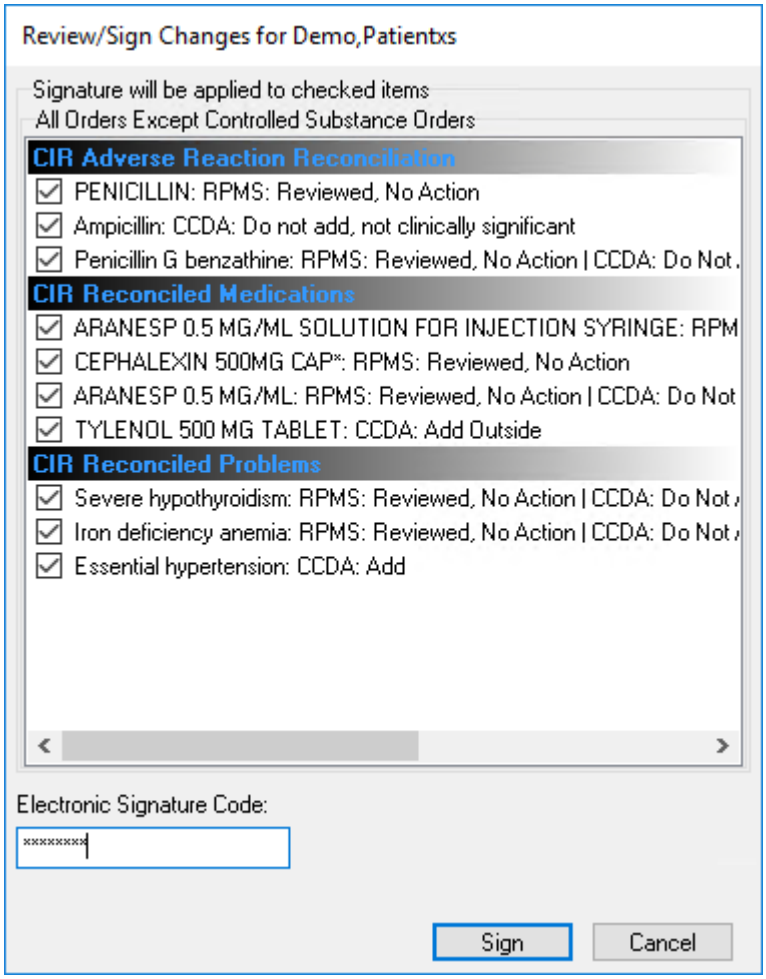

Figure 6-3: The Review/Sign Changes window with the reconciled items and their actions

The CIR Tool information resets and each reconciled CCDA document will reflect the reconciliation type and date (Figure 6-4).

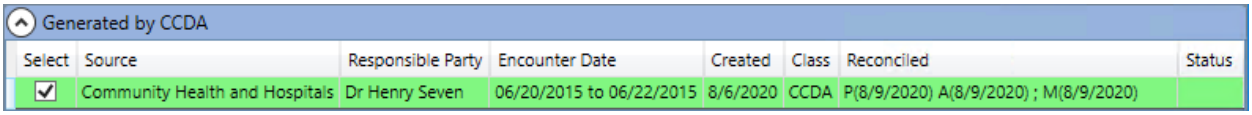

Figure 6-4: Generated by CCDA pane with reconciled CCDA

6.2 Cancel All

If you do not want to complete the reconciliation, or if you want to undo all your changes so far, click the **Cancel All** button. The **Remove All Reconciliation Changes** warning (Figure 6-5) displays.

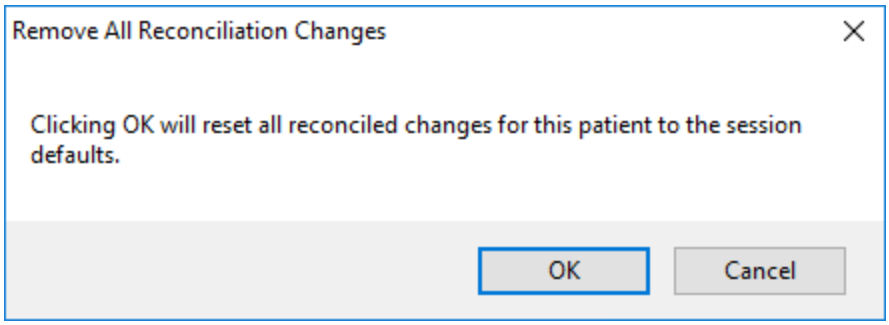

Figure 6-5: The Remove All Reconciliation Changes warning

Clicking **Cancel** 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:
https://home.ihs.gov/security/index.cfmhttp://security.ihs.gov/.

> **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 ROBs 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 policies 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

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.

Clinical Information Reconciliation

In the context of Electronic Health Records, the ability to review information from a patient's medication list, allergies and intolerances list, and problem list, by comparing the information from at least two sources side by side, create a single list for each type, and review and validate the final set of data to incorporate into the record.

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.

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.

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
GUI	Graphical User Interface
HHS	U.S. Department of Health and Human Services
HIM	Health Information Management
HIPAA	Health Information Portability and Accountability Act
ID	Identification
IHS	Indian Health Service
IPL	Integrated Problem List
ISSO	Information System Security Officer
IT	Information Technology
ONC	Office of the National Coordinator
PC	Personal Computer
POV	Purpose of Visit
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: https://www.ihs.gov/itsupport/

Email: itsupport@ihs.gov