



RESOURCE AND PATIENT MANAGEMENT SYSTEM

Prenatal Care Module Electronic Health Record Graphical User Interface

(BJPN)

User Manual

Version 2.0
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Table of Contents

1.0	Introduction.....	1
1.1	Background	1
1.2	Prenatal Care Module.....	1
2.0	System Navigation	3
2.1	Using Prenatal Care Module Features.....	3
2.1.1	Pregnancy Issues and Problems List	3
2.1.2	Prenatal Pick List.....	22
2.2	Using Prenatal TIU Objects	23
2.2.1	PIP Expanded-Current Pregnancy	23
2.2.2	PIP Expanded-Current Encounter	23
2.2.3	PIP Expanded-Most recent note.....	24
2.3	Using Prenatal Health Summary Objects	24
2.3.1	PIP Expanded-Pregnancy	24
2.3.2	PIP Expanded-Current Encounter	25
3.0	Package Management	26
3.1	Security Keys.....	26
3.2	Parameters	26
4.0	Package Operation	27
4.1	Installation	27
4.2	Giving Users Access to the PCM Components	27
4.3	Adding Prenatal Care Module Components to EHR.....	27
4.3.1	Accessing Design Mode	28
4.3.2	Layout Manager.....	29
Appendix A:	Rules of Behavior	34
A.1	All RPMS Users	34
A.1.1	Access.....	34
A.1.2	Information Accessibility	35
A.1.3	Accountability	35
A.1.4	Confidentiality	36
A.1.5	Integrity.....	36
A.1.6	System Logon.....	36
A.1.7	Passwords.....	37
A.1.8	Backups.....	38
A.1.9	Reporting.....	38
A.1.10	Session Timeouts	38
A.1.11	Hardware	38
A.1.12	Awareness.....	39
A.1.13	Remote Access	39
A.2	RPMS Developers	40

A.3 Privileged Users.....	40
Glossary.....	43
Acronym List	45
Contact Information	46

Preface

The purpose of this manual is to provide users with the information needed to use the Indian Health Service (IHS) Electronic Health Record (EHR) Prenatal Care Module (PCM) components which have been developed and released under the new BJPN namespace. The PCM is composed of two Windows®-based Graphical User Interface (GUI) components within the EHR. The PCM allows users to manage prenatal problems and issues for a patient during pregnancy. The Pregnancy Issues and Problem List (PIP) component serves to maintain the list of issues and risks associated with both current and all pregnancies for providers to consider the prenatal issues associated with the pregnancy in the context of all similar problems. The Prenatal Pick List (PPL) component provides a quick way to locate and add or remove problems from the PIP.

1.0 Introduction

This manual contains reference information about the PCM views and step-by-step procedures to show users how to perform the activities supported by the component.

1.1 Background

The traditional EHR Problem List provides a concise inventory of a patient's medical conditions. The list keeps critical patient problem information "on the surface" where the problems can be reviewed quickly and easily. In addition, the list keeps diagnoses from getting lost in the record and makes it simple to evaluate a single diagnosis within the overall context of a patient's other active medical conditions. This problem list is the focal point of problem-oriented medical record keeping.

Past experience suggests that it is useful to maintain a pregnancy-specific problem list that provides a focused summary of problems associated with a patient's pregnancy. This new pregnancy-specific problem list is referred to as the PIP. With the release of Version 2, users will be able to copy a prenatal problem to the EHR Integrated Problem List (IPL) and problems from the IPL can be copied to the PIP.

Aside from limiting its context to a single pregnancy, the PIP differs from the traditional problem list in two important ways:

1. Equal emphasis is given to documenting medical conditions and risk factors
2. PIP entries have "scope"; namely, each entry is limited to the current pregnancy or to all pregnancies

1.2 Prenatal Care Module

The PCM is intended to allow providers to see a pregnancy-specific problem list that provides a focused summary of problems associated with a single pregnancy.

The PCM can help IHS providers by:

- Providing a pregnancy specific problem list to track problems and issues related to the current pregnancy or all pregnancies.
- Providing the ability for the provider to clarify the issue with provider text to be included with the Systematized Nomenclature of Medicine--Clinical Terms (SNOMED CT®) term associated with the problem.
- Providing the ability to enter care plans, patient goals and visit instructions associated with the prenatal problem.
- Providing the ability to set the problem as today's Purpose of Visit (POV).

- Providing the ability to include the problem list and notes in a progress notes using Text Integration Utility (TIU) objects.
- Providing the ability to include the problem list and notes in a Health Summary (HS) using HS objects.

2.0 System Navigation

2.1 Using Prenatal Care Module Features

This section provides an overall look at the design and functions of the main screen elements of the PCM.

The core concept of the Prenatal Care Module Version 2.0 is the PIP. The PIP is a list of issues and problems associated with a patient's pregnancy that the user has added by selecting individual problems from the PPL or by utilizing the SNOMED CT® lookup utility. The PPL will present the user with a default set of common pregnancy issues and problems. The list is integrated with the Integrated Problem List (IPL) Pick List functionality. Pick lists marked as being Prenatal-related will be displayed in the PPL.

2.1.1 Pregnancy Issues and Problems List

The PIP component displays the list of issues and problems associated with a patient's pregnancy. This list is manageable by the user, allowing additions, edits and deletes, as necessary.

Users who hold any of the ORES/ORELSE/PROVIDER keys are viewed as clinical users and have full access privileges to all problem list options. Users with the BGOZ PROBLEM LIST EDIT key can add or edit the problem list. Users with the BGOZ VIEW ONLY key can view information but cannot edit data in this component.

A parameter BJPN DISABLE PRENATAL EDITING was included with the release of the Prenatal Care Module Version 1.0. Users or users subscribed to a User Class entered into this parameter will have view only access to the PCM, regardless of the security keys they hold.

- The PIP window (also known as the PIP component) has the following features:
- Radio buttons by the PIP label determines what problem status (Active, Inactive, or All) will be displayed in the (lower) grid.
- *A visit or visit context **must** be selected in order to access the edit functionality of the PIP/PPL.* PIP/PPL edit functionality consists of using the Add, Edit, Delete, Set as Today's POV, Pick List and Toggle buttons or to add/remove items using the Prenatal Pick List.
- When in view only mode, *a visit or visit context is **not** required*; however only the Problem Status Radio buttons, the Expand/Collapse All, Print, as well as the "Notes for All Pregnancies" check box and View Detail option (available by right-clicking on a problem in the PIP) will be accessible. All PIP/PPL edit functionality will be disabled when in view only mode.

2.1.1.1 About the PIP

The PIP displays the selected patient’s pregnancy status and Definitive Estimated Date of Delivery (EDD) for context at the top of the component. The PIP entries are displayed in a grid format with Priority, PIP Status, Scope, Modified, IPL Status, Provider Narrative, Last Goal, Last Care Plan, Last Visit Instruction, POV and ICD columns. Figure 2-1 depicts a sample PIP for a patient.

Priority	PIP Status	Scope	Modified	IPL Status	Provider Narrative	Last Goal	Last Care Plan	Last Visit Instruction	POV	ICD
	Active	All Pregnancies	03/25/2014	Episodic	Sprain of hip Testing	Testing				Z22.999
	Active	All Pregnancies	03/19/2014	Episodic	Antenatal care: recurrent aborter Testing Testing	Testing #7	Testing #5	Testing #5		Z22.999
	Active	All Pregnancies	03/17/2014	Episodic	Common cold					J00
	Active	Current Pregnancy	03/19/2014	Episodic	Intrinsic asthma with status asthmaticus ptext	asldkfjasdij	asdfsdfas	asldkfjasdij		J45.902
	Active	Current Pregnancy	03/21/2014	Episodic	Asthma with status asthmaticus ptext 2	Testing Note	Testing Plan	Testing Visit		J45.902
	Inactive	All Pregnancies	03/17/2014	Episodic	Anemia					D64.9
	Active	Current Pregnancy	03/18/2014	Episodic	Abusive behavior					Z22.999
	Active	Current Pregnancy	03/18/2014	Episodic	Alcohol abuse Testing Alcohol abuse					F10.10
	Active	Current Pregnancy	03/21/2014	Episodic	Antenatal care					Z22.999

Figure 2-1: Sample PIP

2.1.1.2 Problem Status

Click a radio button next to the Pregnancy Issues and Problems List label to select the appropriate problems by status to display in the PIP grid.

The **All Problems** option will display both active and inactive problems for the current patient. Users can filter the list by selecting **Active Only** or **Inactive Only**; this means, for example, if **Active Only** is selected, only those problems with a status of Active will display in the PIP grid.

The Status field is editable when adding or editing a problem through the dialog or by clicking the **Toggle Status** button on the list for the selected problem(s).

2.1.1.3 Expand/Collapse All

Click the **Expand (Collapse) All** button to expand or collapse the PIP entries in the grid to show or hide the associated notes for the problem. This button changes from **Expand All** to **Collapse All**. This same functionality is available on the right-click menu.

2.1.1.4 Print

Click the **Print** button to print all problems currently listed in the PIP grid.

Note: Print only works with local printers. EHR remote printers cannot print the graphics associated with the grid itself, only text.

Follow these steps to print selected problems on the patient’s PIP:

1. Click the **Print** button to display the **Print Preview** dialog. The following figure shows a sample of a **Print Preview** dialog:

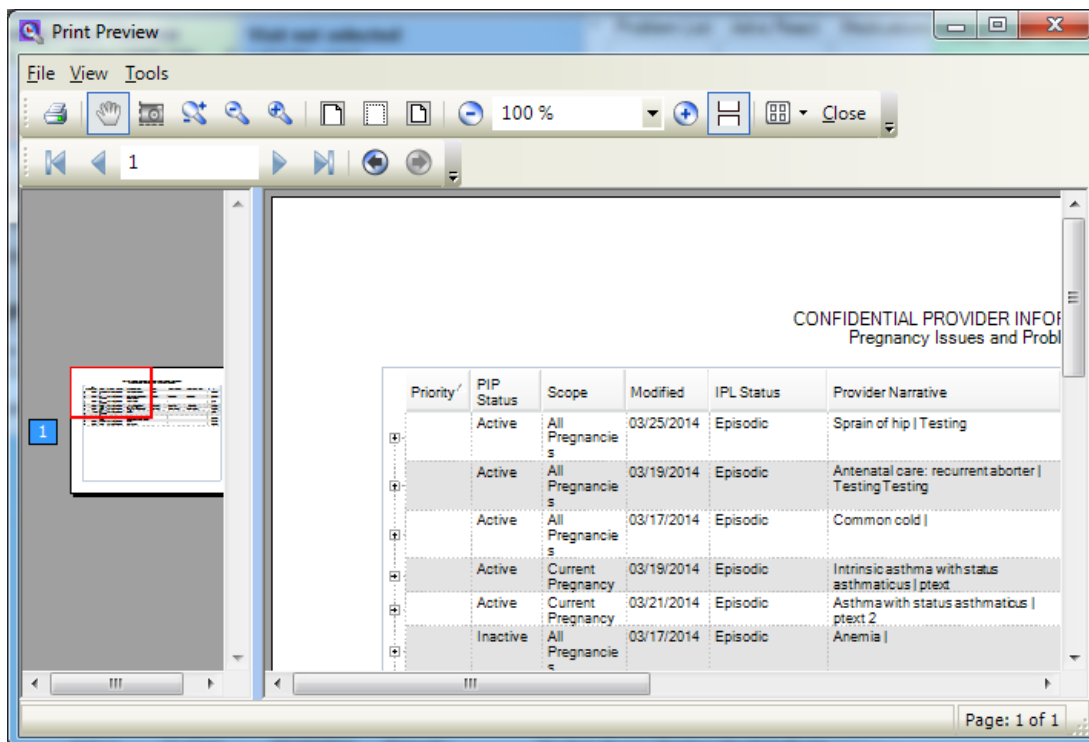


Figure 2-2: Print Preview dialog

2. Make any desired adjustments to the page layout and then print by selecting **File > Print** in the menu or the **Print** button with the printer icon.

2.1.1.5 Set as Today’s POV

For Prenatal 2.0, **Set as Today’s POV** button has been updated to use the same form launched by the EHR IPL “POV” button. All the same rules apply.

If the PIP is editable, users can select one or more problems in order to simultaneously update the problem’s Set as Today’s POV flag. This setting can also be updated via the **Edit Problem** dialog.

Use the **Set as Today’s POV** button to associate active problems from the PIP component as the POV for the selected visits in the EHR Visit Diagnosis component. This same functionality is available on the right-click menu.

Follow these steps to set a problem as the POV for a visit:

1. To select all active problems, either click the **Set as Today's POV** button (or select the **Set as Today's POV** option on the right-click menu) or alternatively, select one problem in the grid and click the **Edit** button (or select the **Edit Problem** option on the right-click menu) to display the **Set as Today's POV/Update problems** dialog for the selected active problems.
2. When done editing, click **Save**. Otherwise, click **Cancel** to cancel the update process.

The following figure shows a sample Set as Today's POV display:

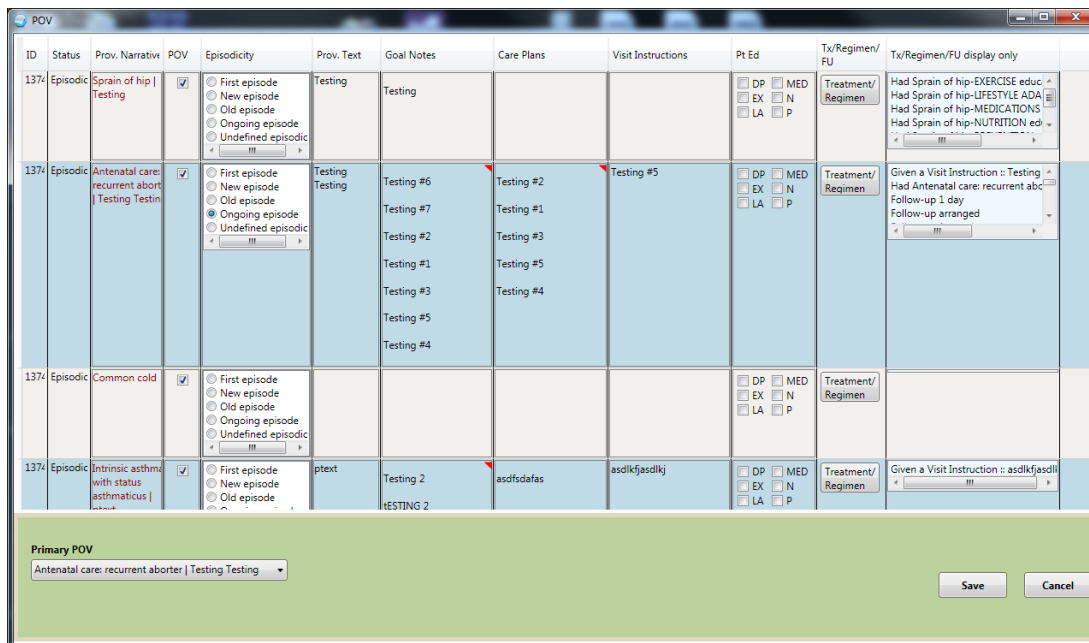


Figure 2-3: Select POV's/Update problems dialog

2.1.1.6 Toggle Status

Click the **Toggle Status** button to toggle the problem status on selected entries in the PIP grid from Active to Inactive or vice versa. The same functionality is available on the right-click menu.

2.1.1.7 Toggle Scope

Click the **Toggle Scope** button to toggle status on selected entries in the Pregnancy Issues and Problems grid from Current Pregnancy to All Pregnancies or vice versa. The same functionality is available on the right-click menu.

2.1.1.8 Add Problem

The Add Problem Information dialog displays when the user clicks the **Add** button on the PIP or when the **Add Problem** is selected from the right-click menu. The dialog allows users to set the attributes for the problem including IPL priority, Use as POV, primary, inpatient, PIP Priority, SNOMED CT® term, IPL status, PIP status, scope, provider text, qualifiers data, asthma data if problem selected is asthma related, Is Injury data, date of onset, goal notes, care plans, visit instructions, care planning activities.

If the PIP is editable, problems can be added to the list in a variety of ways. Checking an entry in the Prenatal PPL will add the item to the PIP. Alternatively, from the PIP, clicking the **Add** button or selecting **Add Problem** from the right-click menu will open the **Add Problem** dialog. Once the entry is updated and saved, the problem will be added to the PIP and appear in the list.

Add a problem to the PIP if an issue is considered important enough and to document as an ongoing issue.

Notes are saved when the user clicks the **OK** button on the CVG form, not via the **Add Problem Save** button.

The following figure shows a sample **Add Problem** Dialog form:

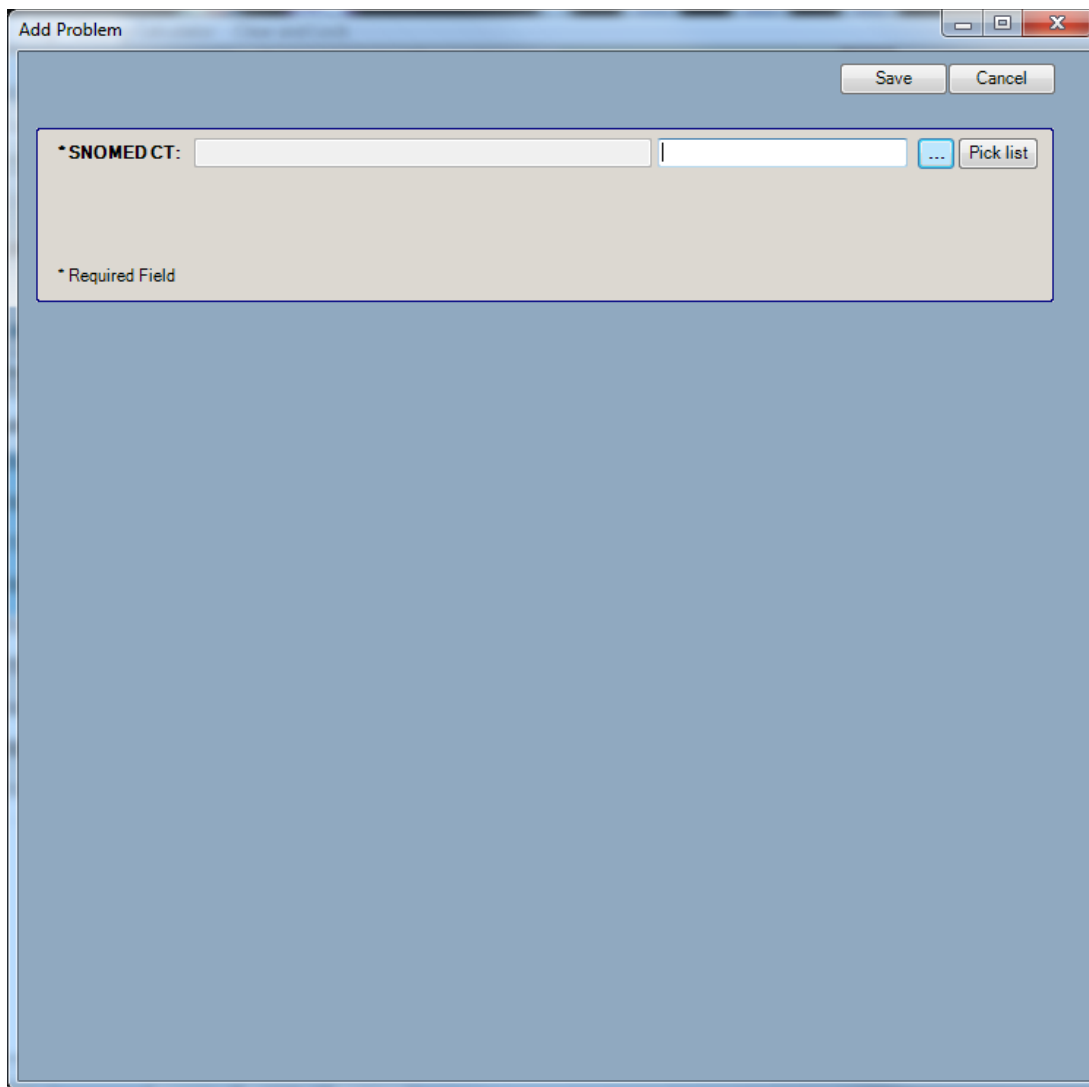


Figure 2-4: Add Problem Information dialog (before SNOMED CT is selected)

Follow these steps to add a new problem to a patient's PIP:

1. Click Add (or select the **Add Problem** option on the right-click menu) to display the **Add Problem Information** dialog.
2. For the required **SNOMED CT** field, either type in the SNOMED CT® value for the problem (if known) or else click the ellipses (...) button to utilize the SNOMED CT® Lookup dialog or the **Pick List** button to select the appropriate entry.
3. If desired, select **IPL Priority** for the problem.
4. If desired, check **Use as POV** to mark this as purpose of visit.

5. Once **Use as POV** is checked, **Primary** checkbox becomes an option. Check if desired.

The screenshot shows the 'Add Problem' dialog box with the following fields and options:

- IPL Priority:** 0
- Use as POV:**
- PIP Priority:** Not Set, Low, Medium, High
- *SNOMED CT:** Antenatal care: grand multiparity (Antenatal) [Pick list]
- *IPL Status:** Chronic, Sub-acute, Episodic, Social/Environmental, Inactive, Personal Hx
- *PIP Status:** Active, Inactive
- *Scope:** Current Pregnancy, All Pregnancies
- * Required Field**
- Provider Text:** 60 characters left. Content: Antenatal care: grand multiparity O09.40
- Qualifiers:** Severity [dropdown], Clinical Course [dropdown]
- Asthma:** Classification [dropdown]
- Date of Onset:** [dropdown]

Figure 2-5: Add Problem - POV

Figure 2-6: Add Problem – Use as POV checked, Is Injury checked

Note: If an inpatient visit is selected, **Use as POV** and **Primary** are replaced with **Use for Inpatient** checkbox.

Add Problem

IPL Priority 0

Use for Inpatient

PIP Priority Not Set Low Medium High

*SNOMED CT: Antenatal care: grand multiparity Antenatal ... Pick list

*IPL Status Chronic Sub-acute Episodic Social/Environmental Inactive Personal Hx

*PIP Status Active Inactive

*Scope Current Pregnancy All Pregnancies

* Required Field

Provider Text 60 characters left
Antenatal care: grand multiparity O09.40

Qualifiers Severity Clinical Course

Asthma Classification

Date of Onset

Figure 2-7: Add Problem – Inpatient Visit

Figure 2-8: Add Problem – Use for Inpatient checked

Checking either **Use as POV** or **Use as Inpatient** will make **Care Plan Info** section visible.

1. If desired, select **PIP Priority** for the problem.
2. Click the appropriate radio button in the **IPL Status** group box, with **Episodic** pre-selected as the default for a new problem.
3. Click the appropriate radio button in the **PIP Status** group box, with **Active** pre-selected as the default for a new problem.
4. Click the appropriate radio button in the **Scope** group box, with **Current Pregnancy** pre-selected as the default for a new problem.
5. If desired, enter a 60 character maximum **Provider Text** field value.

6. If desired, **Qualifiers** section can be updated.
7. If selected problem is Asthma related, the **Asthma** section will be visible and can be updated.
8. If desired, **Date of Onset** can be selected.
9. If desired, Injury data can be entered by checking the **Is Injury** checkbox. The Injury will be display and can be populated.
10. If desired, Care Plan Information can be updated via **Add Visit Instruction / Care Plans / Goal Activities** button or right click menu options on Goal Notes, Care Plans and Visit Instructions grids. Using the Care Plans/Visit Instruction/Goal Activities (CVG) form, will 1) save the currently selected problem on the Add Problem form and 2) save any data entered on the CVG form.

The screenshot shows a 'Care Plan' dialog box with the following sections:

- Visit Instructions:** Date: 03/28/2014
- Goal Notes:** Date: 03/28/2014
- Care Plans:** Date: 03/28/2014
- Patient Education provided:**
 - Disease Process
 - Exercise
 - Medications
 - Nutrition
 - Lifestyle Adaptation
 - Prevention
- Treatment/Regimen/Follow-up:** (button)
- Current Visit - Care Planning Activities:**
 - Treatment/Regimen/Follow-up:** (empty field)
 - Education Provided:**
 - Readiness to Learn: (empty field)

Buttons: OK, Cancel

Figure 2-9: Add Visit Instruction / Care Plans / Goal Activities form

11. When the **Add Problem Information** dialog is complete, either click **Save** to file the problem information into RPMS or click **Cancel** to quit without saving.

2.1.1.9 Edit Problem

The Edit Problem dialog displays when the user clicks the **Edit** button on the PIP or when the menu option is selected from the right-click menu. The dialog allows users to set the attributes for the problem including IPL priority, Use as POV, primary, inpatient, PIP Priority, SNOMED CT® term, IPL status, PIP status, scope, provider text, qualifiers data, asthma data if problem selected is asthma related, Is Injury data, date of onset, goal notes, care plans, visit instructions, care planning activities.

If the PIP is editable, problems can be edited from the list in two ways, either by clicking the **Edit** button on the PIP or by selecting **Edit Problem** from the right-click menu. Each of these options will open the **Edit Problem** dialog. The **Edit Problem** dialog allows current information for problems already located on the PIP to be updated.

Notes are saved when the user clicks on the **OK** button on the CVG form, not via the **Edit Problem Save** button.

The following figure shows a sample **Edit Problem** dialog form:

Figure 2-10: Edit Problem dialog

Follow these steps to modify current information on the PIP:

1. Highlight a problem in the PIP grid.
2. Click Edit (or select the **Edit Problem** option on the right-click menu) to display the **Edit Problem** dialog for the selected problem.
3. For the required **SNOMED** field, either type in the SNOMED CT® value for the problem (if known) or else click the ellipses (...) button to utilize the SNOMED CT® Lookup dialog or the **Pick List** button to select the appropriate entry.
4. If desired, select **IPL Priority** for a problem.
5. If desired, check **Use as POV** to mark this as purpose of visit.

Once **Use as POV** is checked, **Primary** checkbox becomes an option. Check if desired.

If an inpatient visit is selected, **Use as POV** and **Primary** are replaced with **Use for Inpatient** checkbox.

Checking either **Use as POV** or **Use as Inpatient** will make Care Plan Info section visible.

6. If desired, select **PIP Priority** for a problem.
7. Click the appropriate radio button in the **IPL Status** group box, with **Episodic** pre-selected as the default for a new problem.
8. Click the appropriate radio button in the **PIP Status** group box, with **Active** pre-selected as the default for a new problem.
9. Click the appropriate radio button in the **Scope** group box, with **Current Pregnancy** pre-selected as the default for a new problem.
10. If desired, enter a 60 character maximum **Provider Text** field value.
11. If desired, **Qualifiers** section can be updated.
12. If selected problem is Asthma related, the **Asthma** section will be visible and can be updated.
13. If desired, **Date of Onset** can be selected.
14. If desired, Injury data can be entered by checking the **Is Injury** checkbox. The Injury will be display and can be populated.
15. If desired, Care Plan Information can be updated via **Add Visit Instruction / Care Plans / Goal Activities** button or right click menu options on Goal Notes, Care Plans and Visit Instructions grids. Using the Care Plans/Visit Instruction/Goal Activities (CVG) form will save any data entered when the **OK** button is clicked.
16. After correcting any information about the problem (including adding or deleting a note), click **Save** (on the Edit Problem Information dialog) to have the corrected information display in the PIP grid or click **Cancel** to quit without saving.

2.1.1.10 Delete Problem

If the PIP is editable, problems can be deleted or inactivated from the PIP (and possibly the IPL) in a variety of ways. Unchecking an entry in the PPL will delete or inactivate the problem from the PIP. Alternatively, from the PIP, clicking the **Delete** button or selecting **Delete Problem** from the right-click menu will delete or inactivate the problem from the PIP and possibly delete it from the IPL. The following sections describe the deletion/inactivation process.

2.1.1.10.1 Deleting Problem From Both the PIP and the IPL

If a problem on the PIP has no care planning, goals, or visit instructions associated with it and the problem has never been marked as a purpose of visit, deleting the problem from the PIP will give the user the choice to remove the problem from both the PIP and the IPL. In this scenario, once a user has selected to delete the problem using one of the methods described, they will be presented with the dialog shown in Figure 2-11. Selecting **Yes** will delete the problem from both the PIP and the IPL. Selecting **No** will only delete the problem from the PIP.

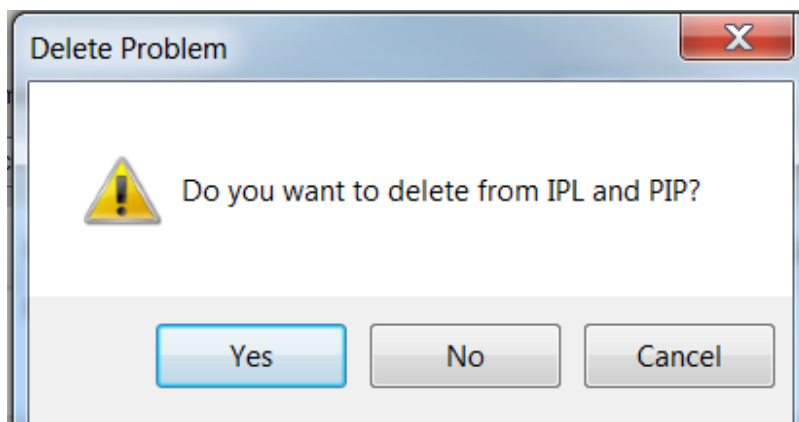


Figure 2-11: Choice of deleting from the PIP and IPL or just the PIP

After selecting to delete the problem, the user will be prompted to enter a reason for the deletion as shown in Figure 2-12.

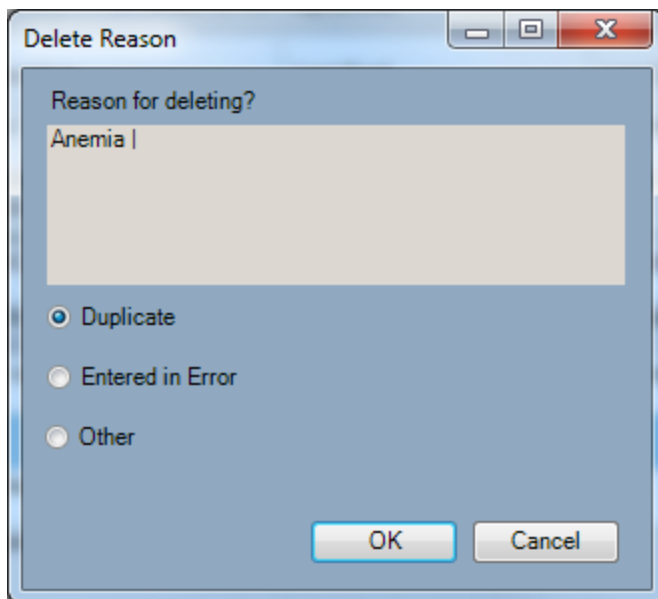


Figure 2-12: Delete Reason Dialog

2.1.1.10.2 Inactivating PIP Problems Instead of Deleting

If a problem on the PIP has care planning, goal, or visit instructions entered on it or if it has been used as a POV in the past, the problem cannot be deleted from the PIP. Instead, when the user attempts to delete the problem, they will be presented with the following dialog shown in Figure 2-13. Clicking **Yes** will mark the problem as inactive on the PIP but will leave it alone on the IPL. Clicking **No** will cancel the deletion.

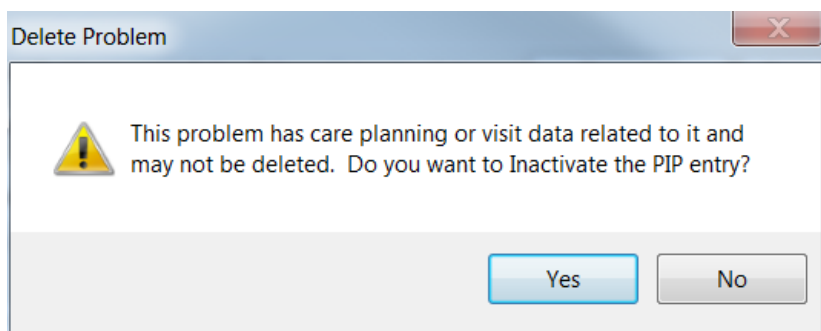


Figure 2-13: Making a PIP Problem Inactive Instead of Deleting

2.1.1.11 Notes for All Pregnancies

By default only the notes for the current pregnancy are displayed on the PIP. To display all notes for all pregnancies, check the **Notes for All Pregnancies** option. Notes are defined as being from the current pregnancy if their date of entry falls between the Definitive EDD minus 280 days and Definitive EDD plus the number of days specified in the BJPN POST DEDD DAYS parameter.

2.1.1.12 Right-Click Menu

The right-click menu displays when the user clicks the right mouse button on the PIP. This menu allows users to access PIP functionality that is also available from the buttons on the component itself.

The following figure shows the contents of the right-click menu:

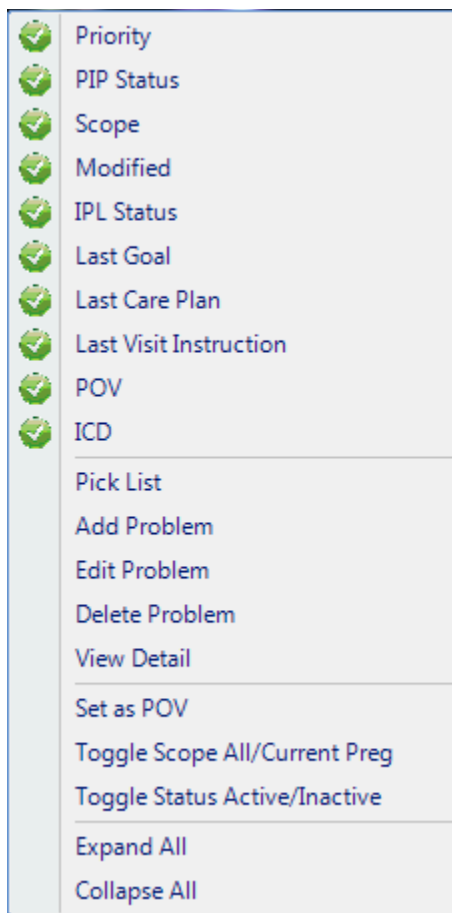


Figure 2-14: Right-Click Menu

2.1.1.13 Pick List

Click the **Pick List** button to open the Prenatal Pick List form. The same functionality is available on the right-click menu. See Section 2.1.2 for details.

1. Check a problem to add it to the PIP.

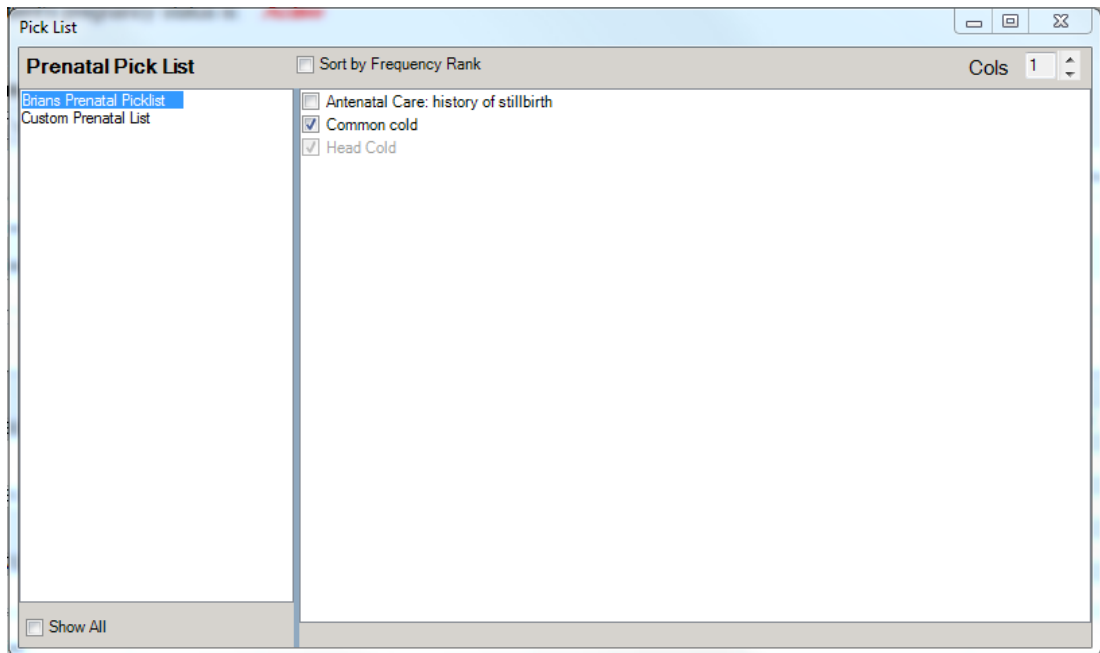


Figure 2-15: Pick List dialog

2.1.1.14 View Detail

This option displays full details for the selected problem and includes a history of all changes.

Follow these steps to View Detail for a problem on the PIP:

1. On the right-click menu, click **View Detail** to display the **Problem Detail** dialog (adjusting the font size as desired).

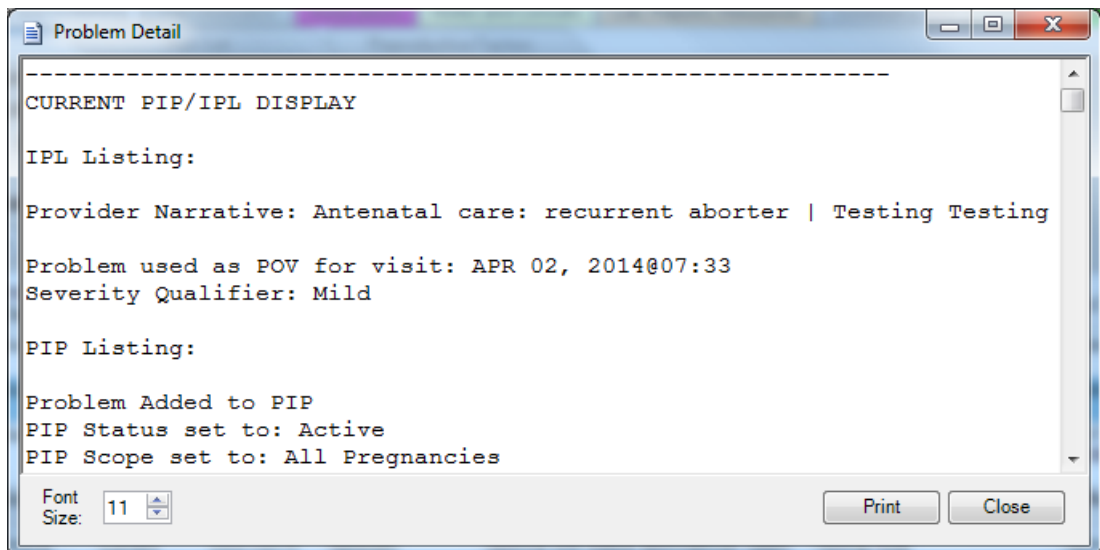


Figure 2-16: Problem Detail dialog

2. To print, click **Print** or click **Close** to exit.
3. Set the desired number of Copies to print by selecting the appropriate value in the **Copies** field.
4. Check the **Save as your default printer** box to set the selected printer as the default printer.
5. Print the detail by either selecting a local printer by clicking once on a printer name to select it and then click **OK** or else print by double-clicking on a printer name.

The following figure shows the **Printer Selection** dialog box:

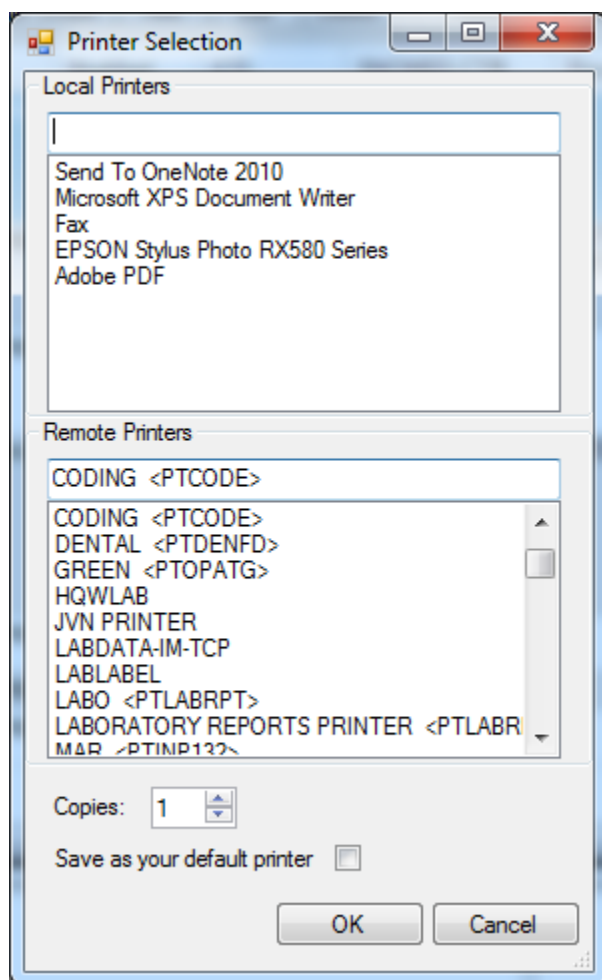


Figure 2-17: Printer Selection dialog

6. Make any desired adjustments to the page layout and then print utilizing the **File** and **Print** menu option or the **print** icon.

The following figure shows the **Print Preview** dialog box:

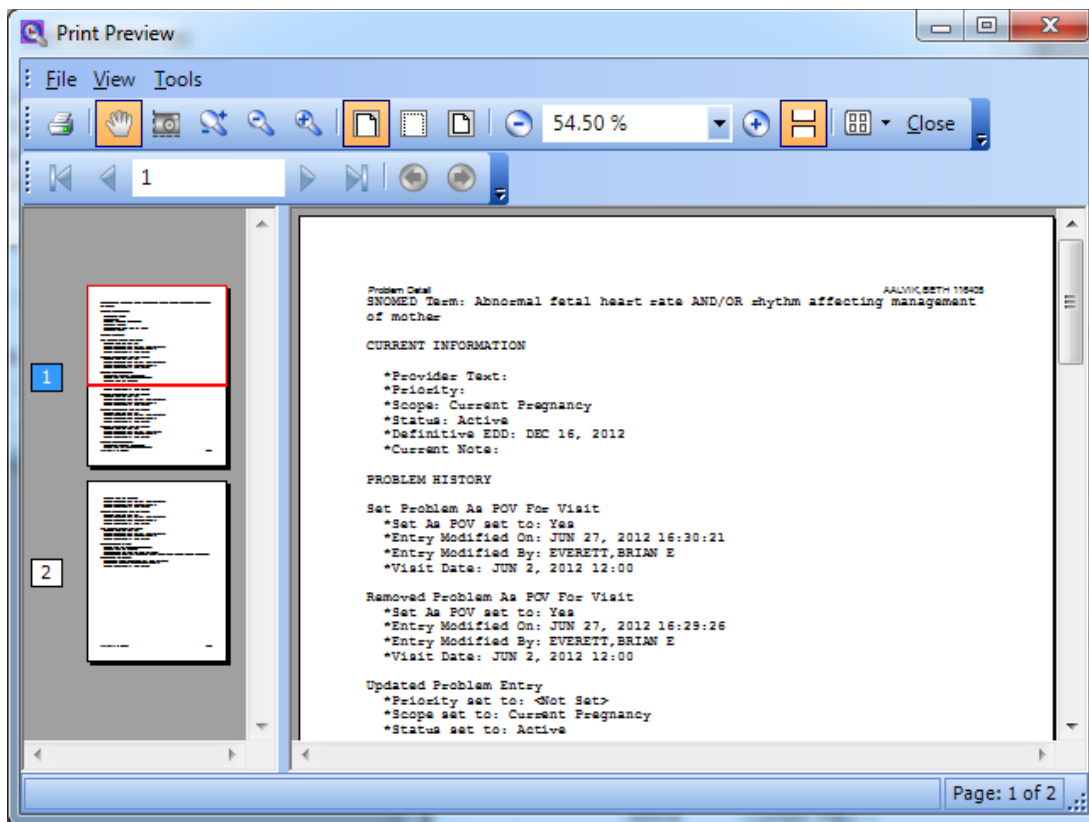


Figure 2-18: Print Preview dialog

7. Print the detail by either selecting a remote printer by clicking once on a printer name to select it and then click **OK** or else print by double-clicking on a printer name.
8. Click **Close** on the **Print Preview dialog** to finish.

2.1.2 Prenatal Pick List

The PPL is displayed in a checked list format and displays the SNOMED CT® terms available to add as entries in the PIP. The box on the left displays the available pick lists to choose from while the box on the right displays the SNOMED CT® terms available for each pick list. Checking an entry in the list immediately adds it to the PIP list. Unchecking an item in the PPL, deletes the entry from the PIP.

Users can display each category as needed and sort by frequency by checking the box above the list. Additionally, the scroll bars can be used to move up or down in order to view the various items in the category or check **Show All** to disable the pick list selection and display all SNOMED CT® terms for selection and inclusion in the PIP. The SNOMED CT® terms displayed using this method is the comprehensive list of terms available to prenatal as provided by Subject Matter Experts.

The following figure shows a sample PPL:

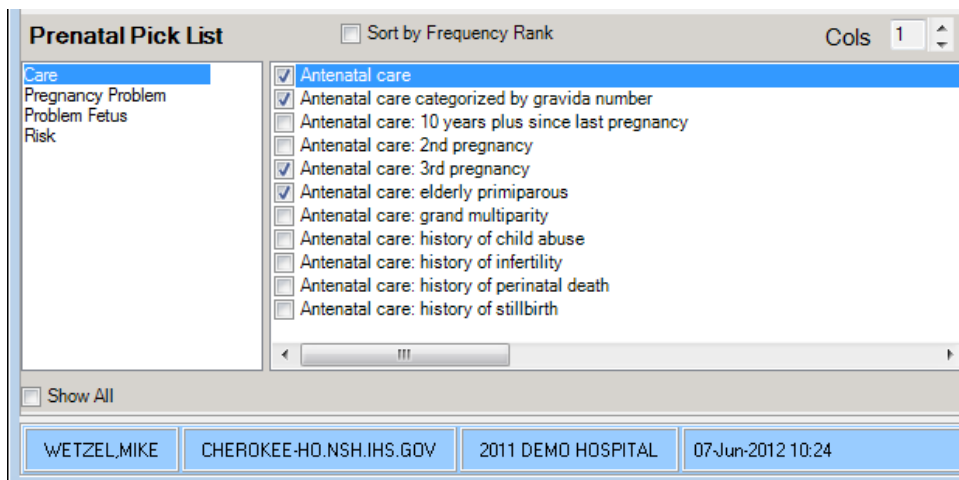


Figure 2-19: Prenatal Pick List

2.2 Using Prenatal TIU Objects

The following TIU objects have been created and are available to include in progress notes to document prenatal patient issues.

2.2.1 PIP Expanded-Current Pregnancy

The first TIU object displays all problems contained on the *current display* of the PIP and the associated Provider Narrative (date added), Notes in reverse chronological order for each item in list with date of entry.

Format:

- 1) Provider Narrative (date added), Author of note, Date of note: Note content

Author of note, Date of note: Note content
- 2) Provider Narrative (date added), Author of note, Date of note: Note content

Author of note, Date of note: Note content

2.2.2 PIP Expanded-Current Encounter

The second TIU object displays all problems contained on the *current display* of the PIP (“All Pregnancies” and “Current Pregnancy” problems) with the associated Provider Narrative (date added), Notes entered this visit.

Format:

- 1) Provider Narrative (date added), Author of note, Date of note: Note content

Author of note, Date of note: Note content

2) Provider Narrative (date added), Author of note, Date of note: Note content

Author of note, Date of note: Note content

2.2.3 PIP Expanded-Most recent note

The third TIU object displays all problems contained on the *current display* of the PIP with the associated Provider Narrative (date added), most recent Note for each problem for current pregnancy (“All Pregnancies” and “Current Pregnancy” problems).

Format:

1) Provider Narrative (date added), Author of note, Date of note: Note content

Author of note, Date of note: Note content

2) Provider Narrative (date added), Author of note, Date of note: Note content

Author of note, Date of note: Note content

2.3 Using Prenatal Health Summary Objects

The following Health Summary objects have been created and are available to include in Health Summaries to document prenatal patient issues.

2.3.1 PIP Expanded-Pregnancy

The first Health Summary object displays all problems contained on the *current display* of the Pregnancy Issues and Problem List with the associated Provider Narrative (date added), Notes in reverse chronological order for each item in list with date of entry

Format:

1) Provider Narrative (date added), Author of note, Date of note: Note content

Author of note, Date of note: Note content

2) Provider Narrative (date added), Author of note, Date of note: Note content

Author of note, Date of note: Note content

Author of note, Date of note: Note content

2.3.2 PIP Expanded-Current Encounter

The second Health Summary object displays all problems contained on the *current display* of the PIP with associated Provider Narrative (date added), Notes entered today's encounter

Format:

- 1) Provider Narrative (date added), Author of note, Date of note: Note content
Author of note, Date of note: Note content
- 2) Provider Narrative (date added), Author of note, Date of note: Note content
Author of note, Date of note: Note content

3.0 Package Management

The Prenatal Version 2.0 package requires minimal package management primarily related to access and package parameters.

3.1 Security Keys

The following security keys have been implemented with Prenatal Version 2.0 package which can be managed from the standard RPMS menu options.

Key Name	Description
ORES, ORELSE, BGOZ PROBLEM LIST EDIT, PROVIDER	Users holding one or more of these keys will be granted full edit privileges to the PCM.
BGOZ VIEW ONLY	This key should be assigned to the person who has VIEW ONLY permission to the PCM. This overrules any other edit security key.

3.2 Parameters

There are two XPAR parameters delivered with the Prenatal Version 2.0 package which can be managed from the standard RPMS menu options.

Parameter	Value Type	Precedence	Description
BJPN DISABLE PRENATAL EDITING	Boolean	User, Class	Users or users assigned to User Classes entered in this parameter will be excluded from using the PCM, regardless of their assigned security keys.
BJPN POST DEDD DAYS	Numeric	System	The number of days after a patient's definitive estimated date of delivery in which they can still make changes to their prenatal problem list.

4.0 Package Operation

4.1 Installation

Please refer to the installation manual for installation of the package. This is Prenatal Care Module Version 2.0 (BJPN). The software is intended to bring the features of the Prenatal Care Module to the EHR.

4.2 Giving Users Access to the PCM Components

In order for a user to be able to access the PCM components, their user definition must be modified. Any user desiring access to the PCM components must be assigned both the “BMXRPC” and “BJPNRPC” options as secondary menu options in their RPMS user profile. Failure to do so will result in a screen similar to the following figure when attempting to access the prenatal components.

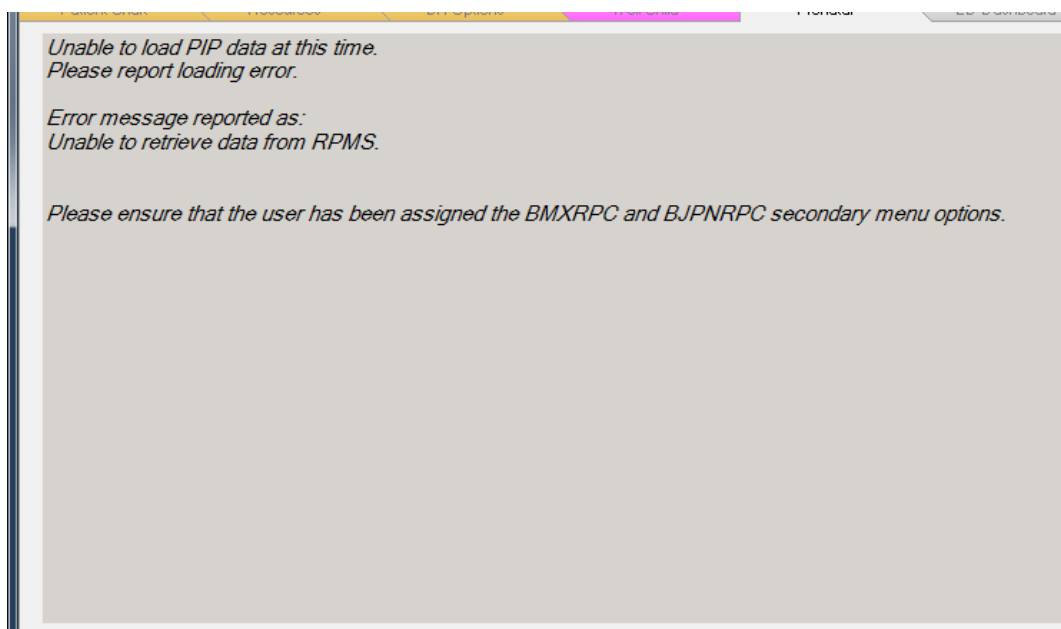


Figure 4-1: Screen which appears if the user is not set up properly to access the PCM

4.3 Adding Prenatal Care Module Components to EHR

After installing the Prenatal Module Version 2.0 build there will be two objects available in the EHR object repository. These components are added to the EHR framework like any other object.

The two new prenatal objects are:

- Pregnancy Issues and Problems List
- Prenatal Pick List

It is recommended, but not required, that a new tab be added to EHR which contains both of the new prenatal components. While not required, it might also be convenient to add the Reproductive Factors component to the new tab as well. Since the Reproductive Factors information is so closely tied to the Prenatal information, it might be helpful to have quick access across each of the components.

The following figure shows a new tab configured to display the Prenatal components, as well as, the existing Reproductive Factors component:

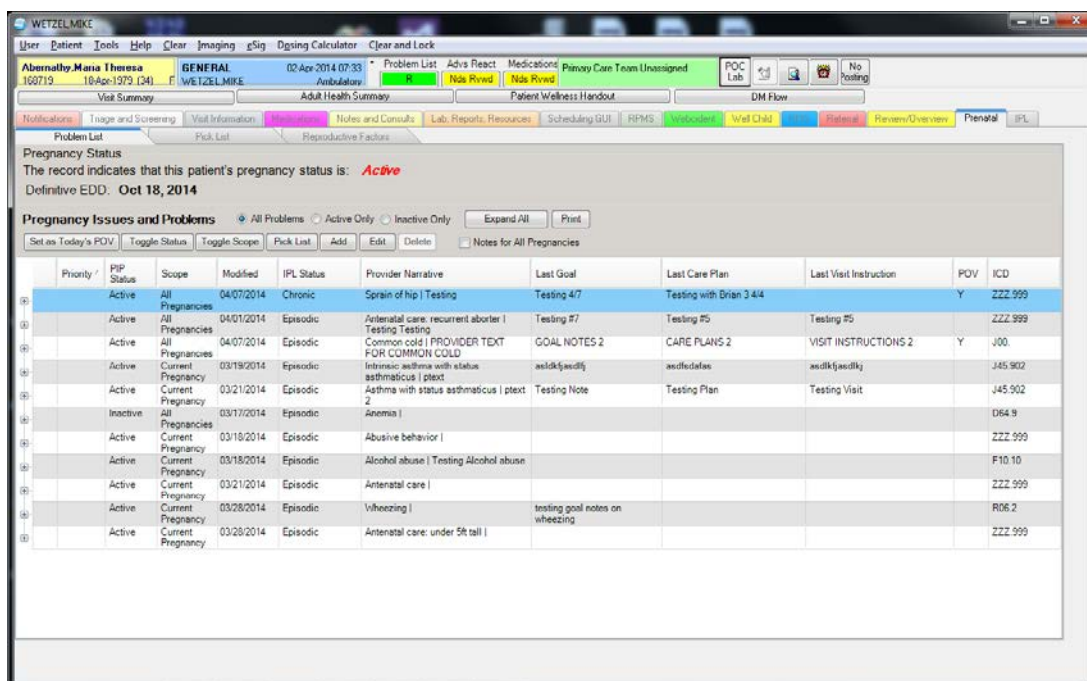


Figure 4-2: Sample Prenatal Tab Layout

4.3.1 Accessing Design Mode

The following steps describe how to add the prenatal components to EHR:

1. Start the EHR application.
2. Right-click on the top window bar to display a contextual menu, and select **Design Mode**.

The following figure shows the contents of the right-click menu:

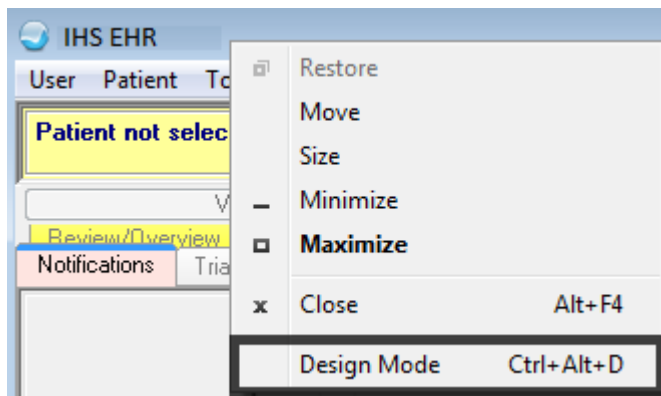


Figure 4-3: Location of Design Mode in EHR

3. After selecting **Design Mode**, the **Design** menu becomes available.

The following figure shows the available menu options:

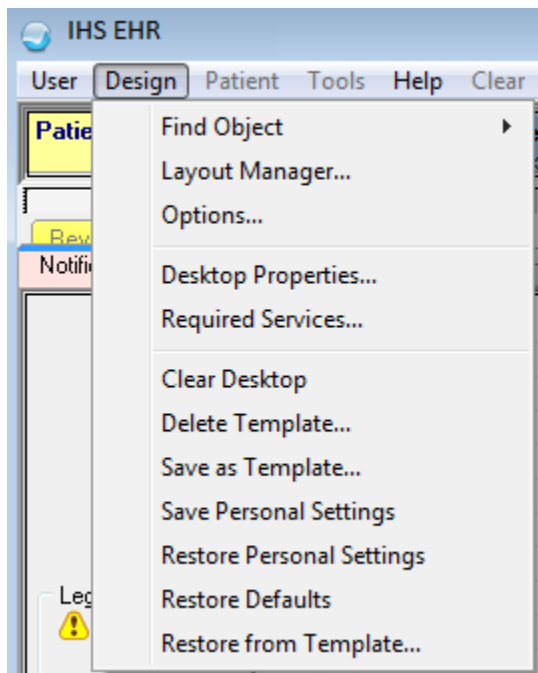


Figure 4-4: Design menu options

4.3.2 Layout Manager

Select the **Layout Manager** option in the **Design** menu to edit from one location. Determine where to put the Prenatal Components.

The following figure shows the EHR **Layout Manager**:

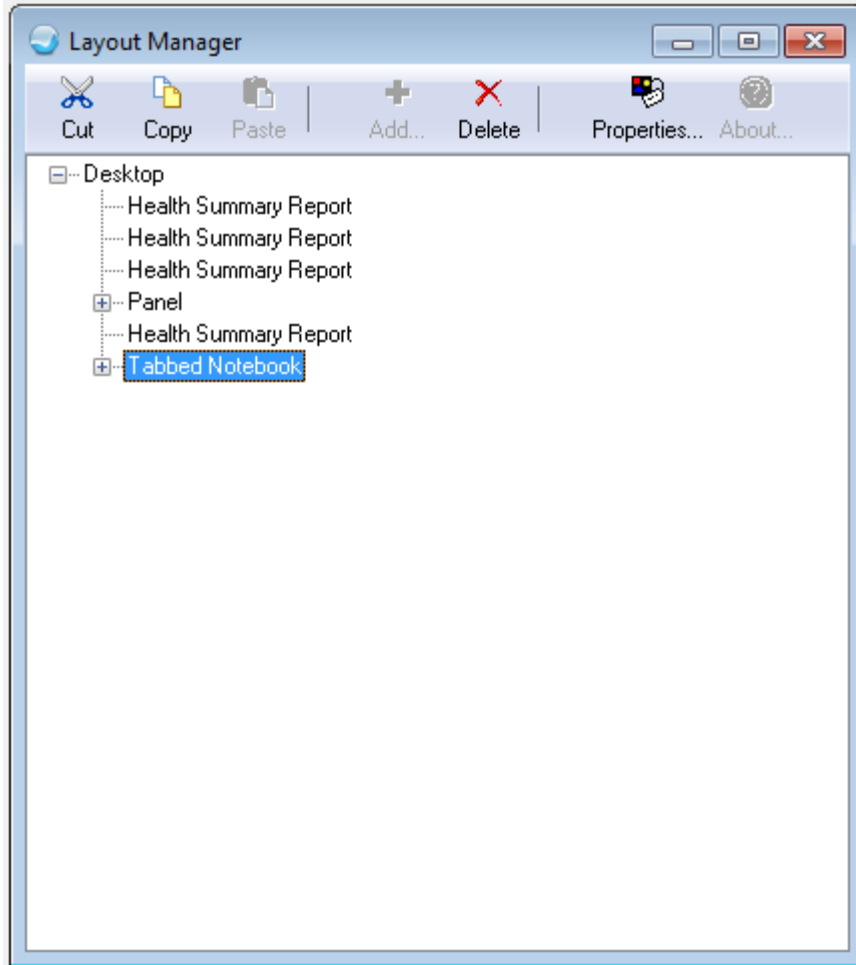


Figure 4-5: EHR Layout Manager window

1. Click on the **Properties** option to access the properties for the **Tabbed Notebook**.

The following figure displays the **Properties for Tabbed Notebook** entry:

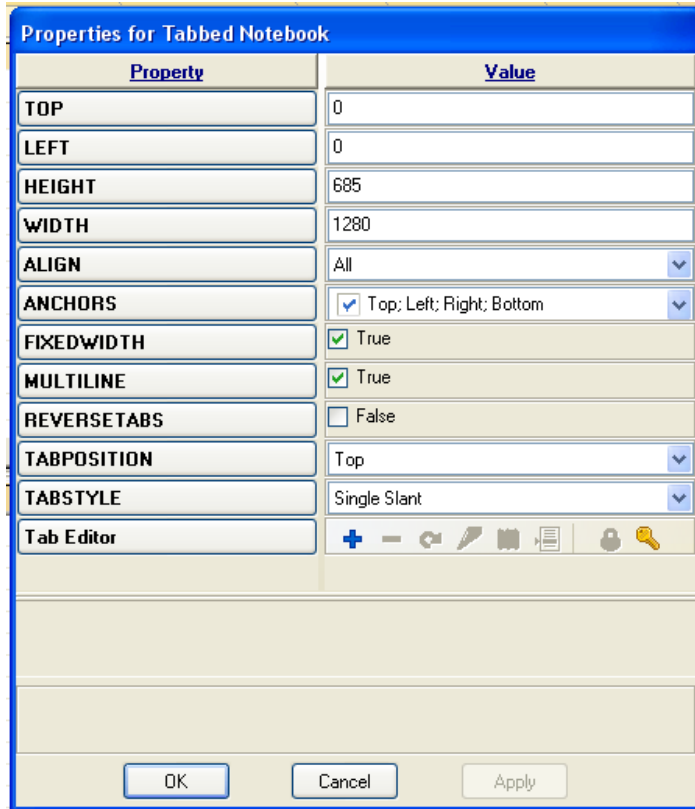


Figure 4-6: Sample Properties of Tabbed Notebook Display

2. Click the plus (+) icon on the **Properties of Tabbed Notebook** dialog to access the **Add an Object** dialog.

The following figure displays the **Add and Object** dialog:

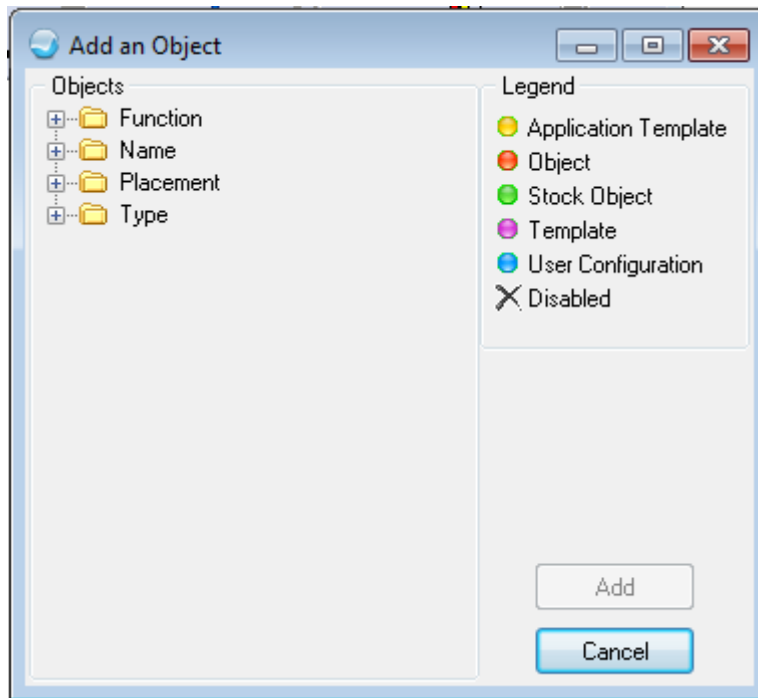


Figure 4-7: Add an Object dialog

3. Click on the **Name Folder** to expand it and display a listing of the objects.

The following figure displays the expanded list of objects:

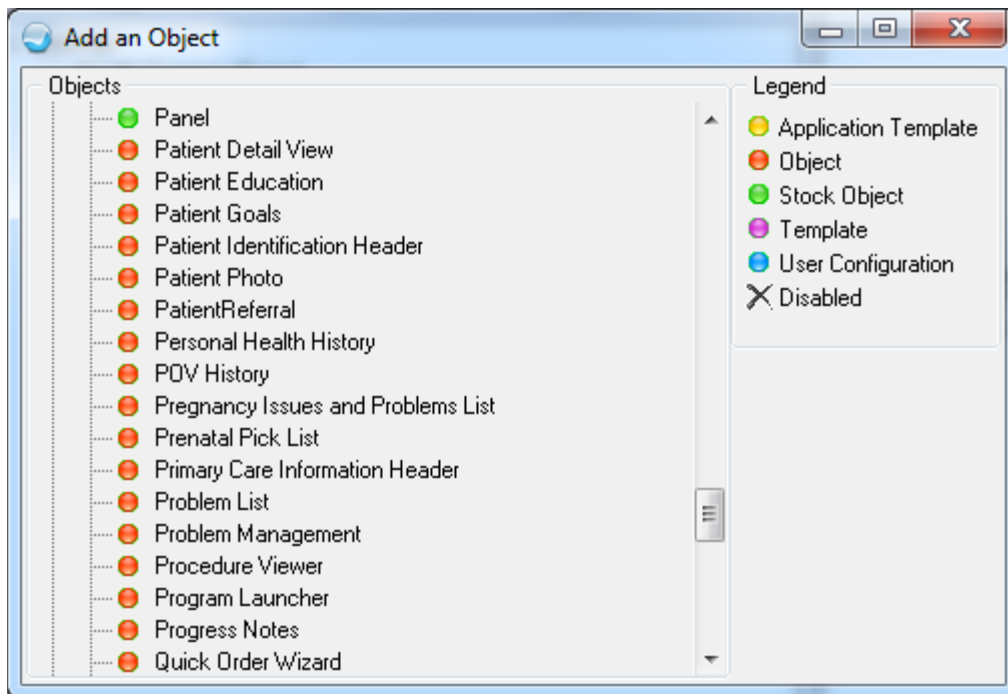


Figure 4-8: Expanded list of Objects

4. From the list, select the **Prenatal** objects and click **Add**.
5. When complete, save the template and log out of the EHR and then log back into EHR.

The following figure shows a sample PCM layout:

The screenshot displays the Prenatal tab interface. At the top, there are navigation tabs: Notifications, Triage and Screening, Visit Information, Medications, Notes and Consults, Lab, Reports, Resources, Scheduling GUI, RPMs, Pregnancy, Well Child, Referral, Review/Overview, and Prenatal (selected). Below these are sub-tabs: Problem List, Pick List, and Reproductive Factors. The main content area shows 'Pregnancy Status' with a note: 'The record indicates that this patient's pregnancy status is: Active' and 'Definitive EDD: Oct 18, 2014'. Below this is the 'Pregnancy Issues and Problems' section, which includes filters for 'All Problems', 'Active Only', and 'Inactive Only', along with 'Expand All' and 'Print' buttons. A table lists various pregnancy issues with columns for Priority, PIP Status, Scope, Modified, IPL Status, Provider Narrative, Last Goal, Last Care Plan, Last Visit Instruction, POV, and ICD. The table contains 11 rows of data.

Priority	PIP Status	Scope	Modified	IPL Status	Provider Narrative	Last Goal	Last Care Plan	Last Visit Instruction	POV	ICD
	Active	All Pregnancies	04/07/2014	Chronic	Sprain of hip Testing	Testing 4/7	Testing with Brian 3 4/4		Y	Z22.999
	Active	All Pregnancies	04/01/2014	Episodic	Antenatal care: recurrent aborter Testing Testing	Testing #7	Testing #5	Testing #5		Z22.999
	Active	All Pregnancies	04/07/2014	Episodic	Common cold PROVIDER TEXT FOR COMMON COLD	GOAL NOTES 2	CARE PLANS 2	VISIT INSTRUCTIONS 2	Y	J00.
	Active	Current Pregnancy	03/19/2014	Episodic	Intrinsic asthma with status asthmaticus ptext	asldkfjaskdjf	asdfsdfas	asldkfjaskdj		J45.902
	Active	Current Pregnancy	03/21/2014	Episodic	Asthma with status asthmaticus ptext 2	Testing Note	Testing Plan	Testing Visit		J45.902
	Inactive	All Pregnancies	03/17/2014	Episodic	Anemia					D64.9
	Active	Current Pregnancy	03/18/2014	Episodic	Abusive behavior					Z22.999
	Active	Current Pregnancy	03/18/2014	Episodic	Alcohol abuse Testing Alcohol abuse					F10.10
	Active	Current Pregnancy	03/21/2014	Episodic	Antenatal care					Z22.999
	Active	Current Pregnancy	03/28/2014	Episodic	Wheezing	testing goal notes on wheezing				R06.2
	Active	Current Pregnancy	03/28/2014	Episodic	Antenatal care: under 5ft tall					Z22.999

Figure 4-9: Sample Layout for Prenatal Tab

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: <http://security.ihs.gov/>.

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

Pregnancy Issues and Problems List (PIP)

New functionality created in the BJPN namespace to implement pregnancy problem tracking for SNOMED CT® terms.

Pregnancy Issues and Problems Pick List (PIPPL)

New functionality created in the BJPN namespace to implement pregnancy problem tracking for SNOMED CT® terms. This module enables user selection of SNOMED CT® terms to add to the PIP module.

Pregnancy Problems Pick List (PPL)

New functionality created in the BJPN namespace to implement pregnancy problem tracking for SNOMED CT® terms. This module enables user selection of SNOMED CT® terms to add to the PIP module.

Electronic Health Record (EHR)

An application used by medical organizations to track patient medical records and care.

ICD Codes

One of several code sets used by the healthcare industry to standardize data. The International Classification of Disease (ICD) codes are an international diagnostic coding scheme. In addition to diseases, ICD also includes several families of terms for medical-specialty diagnoses, health status, disablements, procedures, and reasons for contact with HCPs. IHS currently uses ICD-9 for coding.

Microsoft® (MS)

Software company that develops and distributes the Visual Studio® (VS) tool used to develop the Prenatal application.

Office of Information Technology (OIT)

The organization within IHS that is responsible for developing and maintaining RPMS and related IT functions.

Purpose of Visit (POV)

In RPMS, ICD codes and narrative describing the patient's purpose of visit (POV) are documented in PCC V POV.

Resource and Patient Management System (RPMS)

A series of integrated software components that includes clinical, administrative, and financial functions.

RPMS Patient Care Component (PCC)

Refers to functions within RPMS as a clinical data repository, storing visit-related data about a patient.

Software Quality Assurance (SQA)

The office within OIT responsible for ensuring that the system conforms to RPMS Programming Standards and Conventions (SAC).

Text Integration Utility (TIU)

Refers to functions within RPMS used to store long blocks of text in the medical record.

Visual Studio® (VS)

Microsoft software development tool and integrated development environment (IDE) used to develop the Prenatal application.

Acronym List

Acronym	Term Meaning
APCD	PCC Data Entry
API	Application Programmer Interface
BJPC	IHS PCC Suite
BJPN	Namespace for Prenatal files and routines
BMX	BMXNET
DI	VA FileMan
DLL	Dynamic Link Library
EHR	Electronic Health Record
GUI	Graphical User Interface
HS	Health Summary
IEN	Internal Entry Number
IHS	Indian Health Service
KIDS	Kernel Installation and Distribution System
MS	Microsoft®
OIT	Office of the Information and Technology
OS	Operating System
PC	Personal Computer
PCM	Prenatal Care Module
PIP	Pregnancy Issues and Problems
POV	Purpose of Visit
RPC	Remote Procedure Call
RPMS	Resource and Patient Management System
SAC	Standards and Conventions
SNOMED CT®	Systematized Nomenclature of Medicine—Clinical Terms
TIU	Text Integration Utility
UI	User Interface
VA	Veteran's Administration
VS	Visual Studio
XB	IHS/VA Utilities
XU	VA KERNEL

Contact Information

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

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

Web: <http://www.ihs.gov/helpdesk/>

Email: support@ihs.gov