



RESOURCE AND PATIENT MANAGEMENT SYSTEM

# **RPMS Electronic Health Record**

**(EHR)**

## **Patch 10 Guide**

Version 1.1 Patch 10  
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Office of Information Technology (OIT)  
Division of Information Resource Management  
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## Preface

This document provides an overview of RPMS-EHR 1.1 Patch 10 and assumes that the site has already completed the setup for RPMS-EHR 1.1 and has loaded patches up through Patch 9.

## 1.0 Introduction

This document provides an overview of RPMS-EHR 1.1 Patch 10 and assumes that the site has already completed the setup for RPMS-EHR 1.1 and has loaded patches up through Patch 9. Read the installations notes and all accompanying documentation referring to EHRv1.1 p10.

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

### 1.1 Contents of Distribution

File	Description
ehr_0110.10.exe	Self-extracting zip file
ehr_0110.10n	Installation notes
ehr_0110.10k	KIDS build
ehr_0110.10o.pdf	Patch 10 Guide
ehr_0110.10pg.pdf	Patient Goals User Manual

### 1.2 Dependencies

This patch has several dependences:

- VA Kernel v8.0 or later
- VA Fileman v22.0 or later
- Cache v5.0 or later
- EHR\*1.1\*9
- APSP v7.0 patch 1013 IS REQUIRED for installation of EHR patch 10
- BJPC patch 7
- PXRM 1.5 patch 1008 - needed to make use of the new dialogs but NOT REQUIRED for installation of EHR patch 10

### 1.3 Other Documentation

Please also review the documentation for concurrent releases:

- EHRv1.1 Manuals
- EHR Patient Goals v1.0 Guide
- APSP v7.0, patch 1013

## 2.0 Enhancements, Fixes, and New Features

The following provides general information about the fixes and enhancements for EHRv1.1 Patch 10. Please see the following sections for detailed information, set up, and reference to supporting documentation.

### 2.1 Allergy/ADR

In EHRv1.1 p10, users can now add a comment when documenting “entered in error” in EHR. When a user notes that an allergy or adverse drug reaction is entered in error, a pop up comments box will display. Comments are strongly encouraged (but not required) and the “entered in error” process continues if the OK is pressed on the pop up.

### 2.2 Asthma Action Zones (New Feature)

“Asthma Action Zones” is a new component that allows entry through the EHR of Red and Yellow Zones used in the Asthma Action Plan (AAP). See Set Up Asthma Action Zone Component in EHR to add this object to a user’s template. Red/Yellow Zone information is stored in the V Asthma file as shown below.

```

----- V ASTHMA -----
DUMMY FIELD: 1          PATIENT NAME: -----
VISIT: DEC 20, 2011@13:26
YELLOW ZONE INSTRUCTIONS: TEST Yellow Zone Instructions
EVENT DATE AND TIME: DEC 20, 2011@13:26
ENCOUNTER PROVIDER: RICHARDS,SUSAN
RED ZONE INSTRUCTIONS: TEST Red zone instructions
-----
    
```

Figure 2-1: Storage of Asthma Zone information in V Asthma file

After adding the Asthma Action Zones object to an EHR template, a patient and visit must be selected before entering asthma zone instructions. Add new asthma zone instructions by selecting the **Add** button on the Asthma Action Zone component.

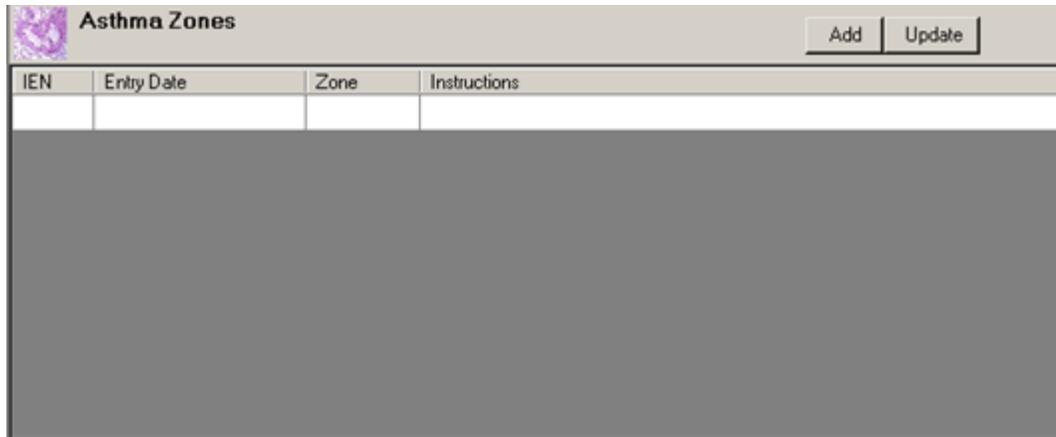


Figure 2-2: Sample Asthma Action Zone component

After selecting **Add**, the **Add/Update Asthma Zones** screen displays. The user is then prompted to enter instructions for the Red and/or Yellow zones.

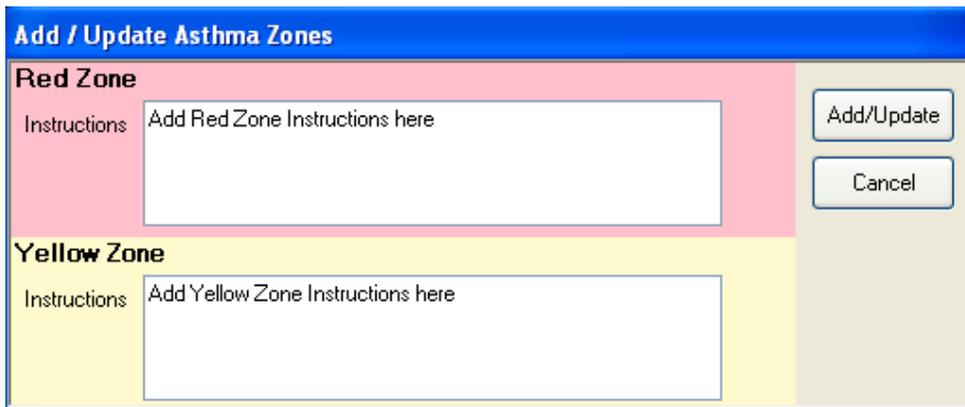


Figure 2-3: Addition of Red/Yellow Zone instructions

When the user clicks the **Add/Update** button, the instructions are displayed in the **Asthma Zones** with the **date of entry, zone, and instructions**.

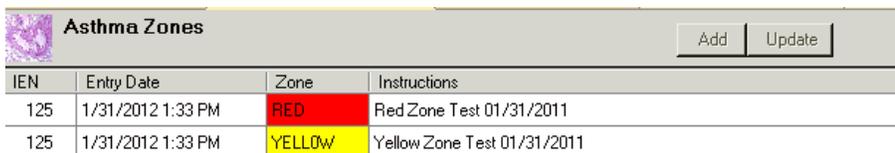


Figure 2-4: Display of Yellow and Red Zones in EHR

The user then can update Zones by clicking the **Update** button. The **Add/Update Asthma Zones** dialog will be pre-populated with the most recent Red Zone and Yellow Zone data. After updating the zone information and clicking **Add/Update**, the updated information for both Red and Yellow are stored as a new entry and displayed on the **Asthma Zone** dialog.

**Note:** Create a VA Health Summary using the Asthma Control (AAP) component. Then place this Health Summary on a Health Summary button in the EHR. This will allow the user to enter new Asthma Zones and then print an Asthma Action Plan in the EHR instead of in RPMS.

## 2.3 Chart Review

The application now stores the logged-in user as the encounter provider for the chart review. Previously, the application stored the visit context provider.

## 2.4 Consults

Consult reports now have the option to filter out Demo patients.

## 2.5 Electronic Prescribing (eRx)

EHRv1.1 p10 delivered support for future eRx refill request messaging. There are no EHR GUI side changes delivered at this time.

## 2.6 Immunizations

- The user is now able to enter an inactive vaccine as a historical immunization.
- The EHR now identifies invalid doses on the Immunization display.

### 2.6.1 Enter Inactive Vaccine as Historical Immunization

In EHRv1.1 p10, users have the ability to enter inactive vaccines as historical immunizations. Active and inactive vaccines are now indicated as a “Yes” or a “No” in the inactive field.

When the user clicks the **Add** button the **Vaccine Selection** window displays. To enter an inactive historical vaccine the user selects the added **Show All Vaccines** radio button when searching for vaccines. This will return all active and inactive vaccines that are stored in the system.

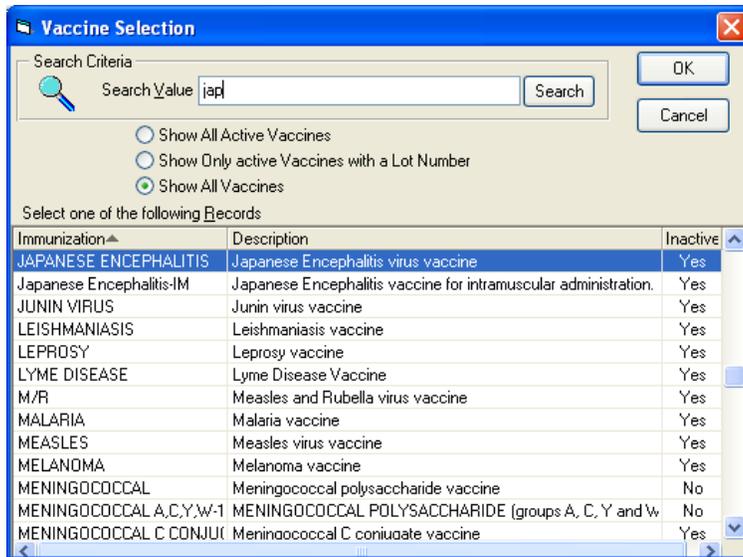


Figure 2-5: Vaccine Selection screen displaying Inactive Column

When the vaccine is selected and the user clicks **OK**, the **Add Historical Immunization** screen will display. In the **Add Historical Immunization** screen the **Vaccine** and **Documented By** is auto populated, and if an inactive vaccine is chosen, the **Historical** radio button is already selected.

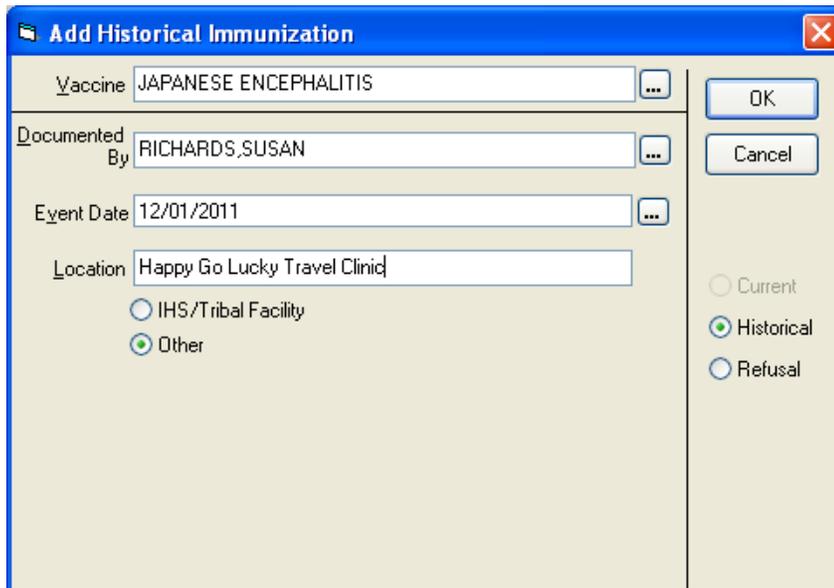


Figure 2-6: Add Historical Immunization screen

Each field with the ellipsis button can be changed. To save the addition of the historical immunization the user must enter an Event Date and Location then click **OK**.

### 2.6.2 Display of Invalid Doses in EHR

When doses are given too soon, the EHR displays “Invalid See Immserve” in the **Vaccine** field. The user can see the detailed explanation using the **Profile** button in the Immunization component. If a dose override is entered, the EHR displays “Invalid” and the reason.

Vaccine	Visit Date	
HEP A ADLT	06/17/2011	
HEP B ADLT-INVALID SEE IMMSEIVE--	06/19/2011	*** The HepB dose on 6/19/2011 was given too soon after 6/16/2011. Dose 3 of HepB(mother HBsAg status unknown) must be given at least 52 day(s) after dose 2 of HepB(mother HBsAg status unknown). This dose will therefore not count as part of the HepB series.
HEP B PED	06/16/2011	
HEP B PED (PEDIARIX)	03/11/2008	
HEP B PED--INVALID-BAD STORAGE	06/13/2011	
IPV (PEDIARIX)	03/11/2008	

Figure 2-7: Display of Invalid Doses (Dose Too Soon and Bad Storage) in EHR

## 2.7 Measurements

New measurements have been added in EHRv1.1 p10 and can be displayed on the Vital Entry Template and the Cover Sheet Vital Entry display. Refer to the EHR CAC Setup Guide on how to add measurements on the Cover Sheet and Vital Entry template.

- Estimated Gestational Age (EGA) – The provider has the ability to enter the weeks gestation at the visit in “week” format. If the patient is in between weeks, the user can also document fraction of a week.
  - 24 weeks 0 days is entered as 24
  - 33 weeks and 2 days is entered as 33 2/7
  - Weeks have an allowable range from 2–45 and days have allowable range from 1–7

**Note:** Add Estimated Weeks Gestation (EGA) in the Health Summary Flowsheet along with other OB vital measurements and recurring labs such as urine protein to create a prenatal flowsheet.

- Mini Mental® Status Exam (MMSE) – Provides the ability to enter a total MMSE score between 0 and 30.

**Note:** MMSE is a copyrighted tool through PAR, Inc. Reproducing the contents of the tool in RPMS or EHR, such as in a template or dialog violates copyright. You CAN enter the score in RPMS/EHR.

## 2.8 Medication Orders

Default pick up locations have now been enhanced. If the pickup location is undefined (left blank) in the Quick Order or the pickup location is not available on the order dialog because of the APSP AUTO RX pharmacy type or drug class, the Pick Up Location will now be defaulted according to the table below.

Table 2-1: Pick Up Locations By Pharmacy Type

APSP AUTO RX	Pick up Location in Quick Order	Default Pick up Location on Medication Order
Internal	Blank C – Clinic W – Window P – Outside Rx Print E – Outside Rx eRx (non CII) E – Outside eRx (CII)	Window Clinic Window Window Window Window
Internal/External	Blank C – Clinic W – Window P – Outside Rx Print E – Outside Rx eRx (non CII) E – Outside eRx (CII)	Window Clinic Window Outside Rx Print Outside Rx eRx (if no SPI, then Outside Rx Print) Outside Rx Print
External	Blank C – Clinic W – Window P – Outside Rx Print E – Outside Rx eRx (non CII) E – Outside eRx (CII)	Outside Rx Print Clinic Outside Rx Print Outside Rx Print Outside Rx eRx (if no SPI*, then Outside Rx Print) Outside Rx Print

## 2.9 Patient Goals (New Component)

The Patient Goals component is designed to facilitate the participation of a patient in the patient’s plan of care. People are most likely to make the greatest gains when therapy and its related goals focus on activities that are meaningful to the patient, and are believed to make a difference in the patient’s life.

Patient goal setting is a patient-driven activity through which the clinician provides a supportive role in assisting the patient in setting goals that are well defined and achievable. The Patient Goals component provides the clinician with a tool that can capture and document the patient’s self-defined goal.

### 2.9.1 Patient Goals Functionality

To use this component please see System Configuration and Set up of Patient Goals Component in EHR. Please read the entire Patient Goals Manual distributed with EHRv1.1 p10.

Table 2-2: Functionality of Patient Goals

Functionality		Icon
Set a New Goal – enter free text field to enter goal in patient’s own words	Active Goals	
Decline goal setting	Declined Goals	
Goal categorization – select Type(s) of goal using check box selection	Type of goal	
Reason (motivation) for goal – free text field	Reason	
Goal start date – defaults to today, editable	Start Date	
Goal follow up date – no default, user sets	Follow Up Date	
Goal steps – when smaller steps are necessary to meet larger goal	Step under main goal	
Notes – provides ability to document short notes during goal follow up visits. Access by clicking “Review” for a goal.	Notes	
Goal/step status – ability to alter the goal status. Active goals are those created and those being “maintained.” Inactive goals are those that have been “met” or “stopped.” Access by clicking “Review” for a goal.		

After set up and configuration of the EHR GUI template the Patient Goals tab will display.

### 2.9.2 Patient Goals Window

After navigating to the **Patient Goals** tab, the main **Patient Goals** window displays all goals for the patient. If there are no goals then there will be a window displaying empty sections for **Active Goals**, **Inactive Goals**, and **Declined Goals**.

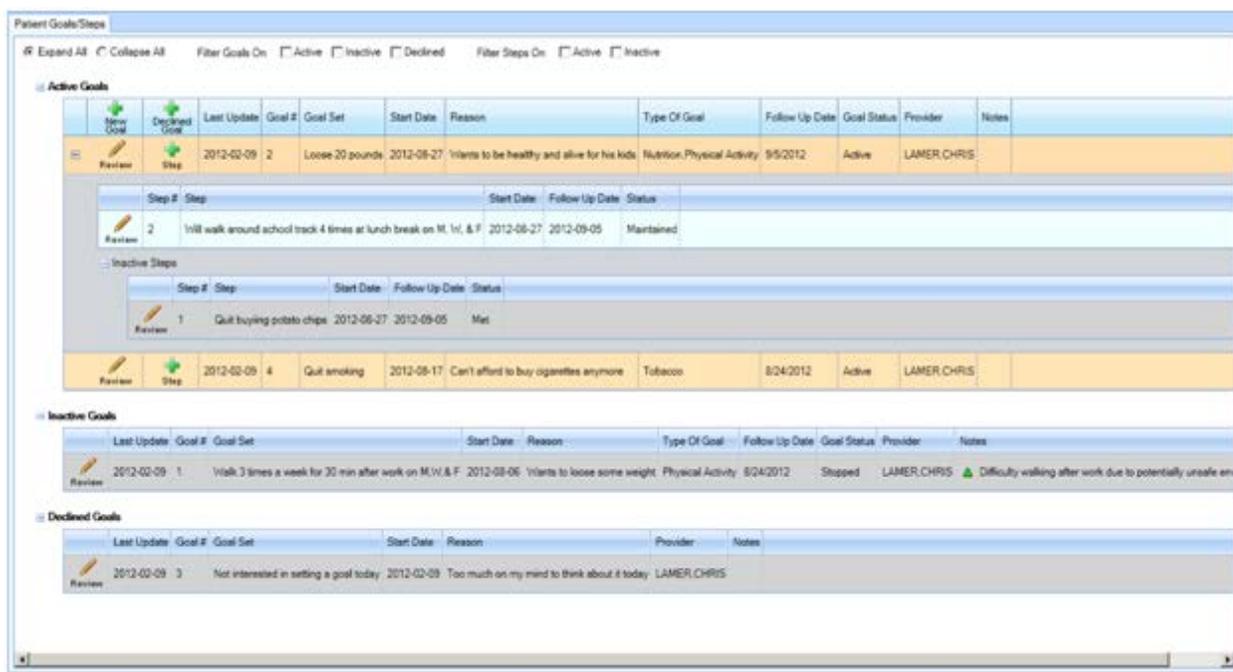


Figure 2-8: Patient Goals main window displayed with Active Goals

A user can select different types of goals depending on the patient. Definition of Active, Inactive, and Declined are:

- **Active Goals.** Active goals are goals that the patient has chosen to participate in. Goals stay in Active status when they are maintained. The user can add an Active goal by clicking the **New Goal** button  on the **Active Goals** bar.
- **Inactive Goals.** Inactive Goals are goals that have been closed by meeting the goal or being stopped. Inactive goals display under the **Inactive Goals** area.
- **Declined Goals.** The patient declines to set goals about a particular topic, for example smoking session, by selecting the goal and then clicking the **Declined Goal** Button .

The Patient Goals component has goal steps. A user can select different types of steps in a goal depending on the patient.

- Patient Goals include steps that are established to provide a progressive road map to help patients accomplish the goals set for them. Goals can have multiple steps.
- Select the Type of Step that best describes the step's category. The step category can be different than the goal's category.
- Steps can be reviewed by selecting the **Review** button .
- Steps have a Step Status: Active, Met, Stopped, Maintained, and Entered in Error.

## 2.10 Personal History – Refusal Documentation

The user now has the ability to document a patient refusal for a CPT code. The user has the ability to search for a CPT code by checking the displayed CPT check box and entering the CPT code (e.g., G0121) or keyword (e.g., colonoscopy), then selecting the ellipsis (...) button.

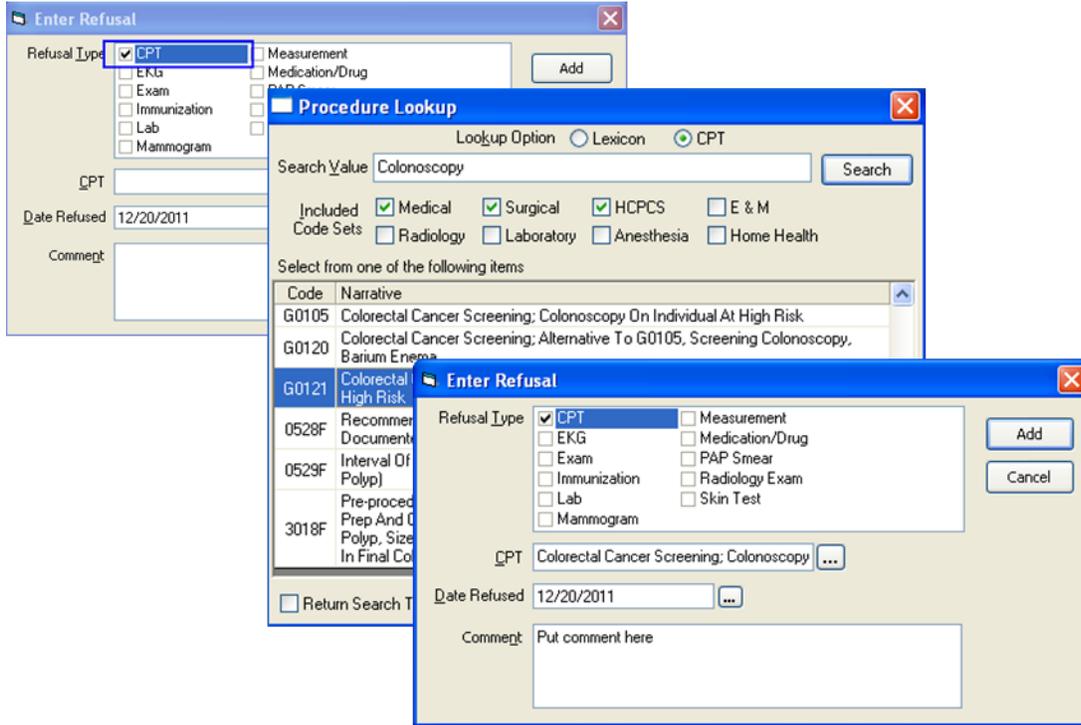


Figure 2-9: Displays of selecting a CPT code or description for entering a refusal

A procedure look up will display and the user can search for the description (e.g. value). After selecting the CPT code, the user can enter a comment about the refusal. After clicking the **Add** button, the refusal is displayed on the **Personal Health** dialog and in the **Health Summary**.

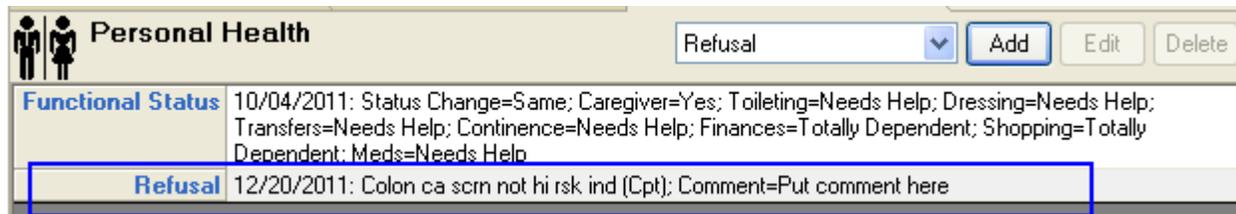


Figure 2-10: Display of Refusal in Personal History

## 2.11 Quick Notes

The application now adds the ability for a user to assign a co-signer. If a user (e.g., a student) requires a co-signer on notes, the user will be prompted to assign one when selecting a quick note. The **Select a Co-signer** pop up will appear where the user can choose the Co-signer.

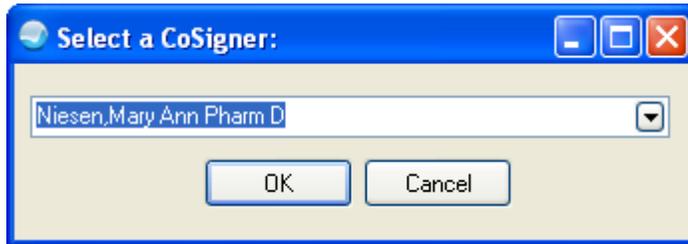


Figure 2-11: Selecting a Co-signer

Once a Co-signer has signed, the co-signer is now viewable on the note.

```

TITLE: GENERAL MEDICAL
DATE OF NOTE: DEC 20, 2011@15:25:01  ENTRY DATE: DEC 20, 2011@16:25:30
AUTHOR: RICHARDS,SUSAN P      EXP COSIGNER: NIESEN,MARY ANN PHARM D
URGENCY:                      STATUS: UNCOIGNED

*** NOT YET COSIGNED ***

```

Figure 2-12: Display on Co-signer

## 2.12 Quick Orders

Now honors days supply set in the BEHORX MAX DAYS SUPPLY parameter.

## 2.13 Reminders

Activate/Inactivate Reminder added to the RPMS EHR Master Configuration Menus: BEH | REM | DEF menu.

## 2.14 Reminder Dialog Prompts

### 2.14.1 Measurements

Reminder Dialog prompts have been added for the two new measurements:

- Estimated Gestational Age (EGA)
- Mini Mental Status Exam (MMSE)

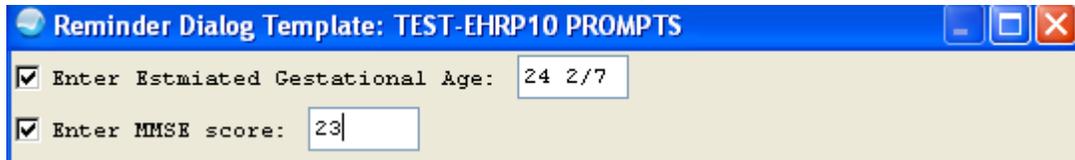


Figure 2-13: Reminder Dialog measurement prompts

### 2.14.2 Asthma Control

Reminder Dialog prompts have been added for the following finding items:

- ASM.WELL CONTROLLED
- ASM.NOT WELL CONTROLLED
- ASM.VERY POORLY CONTROLLED

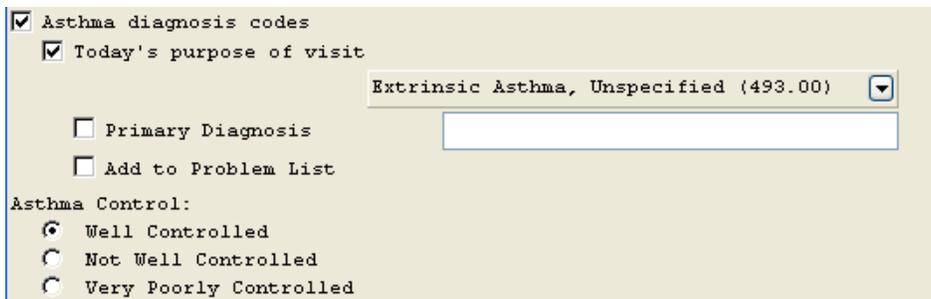


Figure 2-14: Asthma Control dialog prompts

**Tip:** Offer the ability to document a Visit Diagnosis of Asthma in the same Reminder Dialog. If the Asthma control is entered without a visit diagnosis, it is stored in the V Asthma File, visible on the Asthma Supplement but will not display in the visit diagnosis portion of the record.

**Tip:** Place the three Asthma Control elements into a group and set the selection to “one” so that it is a mandatory radio button.

## 2.15 Reproductive History

Several changes have been made to the Reproductive History file. The following is a list of features and changes that have been added.

Table 2-3: List of Features and Changes in Reproductive History

Feature	Change
LMP	- No change
Lactation status	- Not lactating, Lactating, Unknown

Feature	Change
Family Planning	<ul style="list-style-type: none"> <li>- Expanded list of “Methods”</li> <li>- Store Date Begun and Date Ended, Reason discontinued, and comments</li> <li>- Can have 2 or more current forms of family planning (example: condoms and emergency contraception)</li> </ul>
History	<ul style="list-style-type: none"> <li>- No changes in pregnancy history (Total # pregnancies, Full Term, etc.)</li> <li>- Additions: DES Daughter Menarche (in years) Coitarche (in years) Menopause onset age (in years)</li> </ul>
Pregnancy	<p>There are now five EDDs (Estimated Due Dates) and optional comments.</p> <ul style="list-style-type: none"> <li>- Definitive – determined by the OB provider. Might or might not be one of the most current EDDs listed (see below)</li> <li>- By LMP – determined by a calculation from Last Menstrual Period (user calculates, not automatic)</li> <li>- By Ultrasound – determined by ultrasound. Accuracy is variable depending on estimated weeks gestation.</li> <li>- By Clinical Parameters – determined by measurements and physical exam.</li> <li>- Method Unknown – can be used to transcribe an EDD from an outside provider who did not specify method used to determine.</li> </ul>

### 2.15.1 Family Planning

To add/update a family planning method, click **Review/Update**. Click **NEW** to add a new method, or select an existing entry to edit.

**Reproductive Factors** [Add] [Edit]

**Menstrual Period**  
Last

**Lactation**  
Status

**Family Planning**


[Review Update]

**History**

Total # of pregnancies  Spontaneous Abortions (Miscarriages)

Full Term  Induced Abortions

Premature  Ectopic Pregnancies

Multiple Births  Menarche Age  years

Living Children  Coitarche Age  years

DES Daughter  Menopause Onset Age  years

**Pregnancy**

Currently Pregnant

EDD (Estimated Due Date)

Definitive	Comments
<input type="text"/>	<input type="text"/>
by LMP <input type="text"/>	<input type="text"/>
by Ultrasound <input type="text"/>	<input type="text"/>
by Clinical Parameters <input type="text"/>	<input type="text"/>
Method Unknown <input type="text"/>	<input type="text"/>

Figure 2-15: Display of New Reproductive History fields

Additions included are:

- an extended list of family planning methods
- start and end date (for historical methods)
- the ability to enter two or more family planning methods

To add/edit additional family planning methods click the **Review/Update** button on the right-side of the **Family Planning** group box of the **Reproductive Factors** dialog. Select the line to edit a method or click **New** to add a new method.

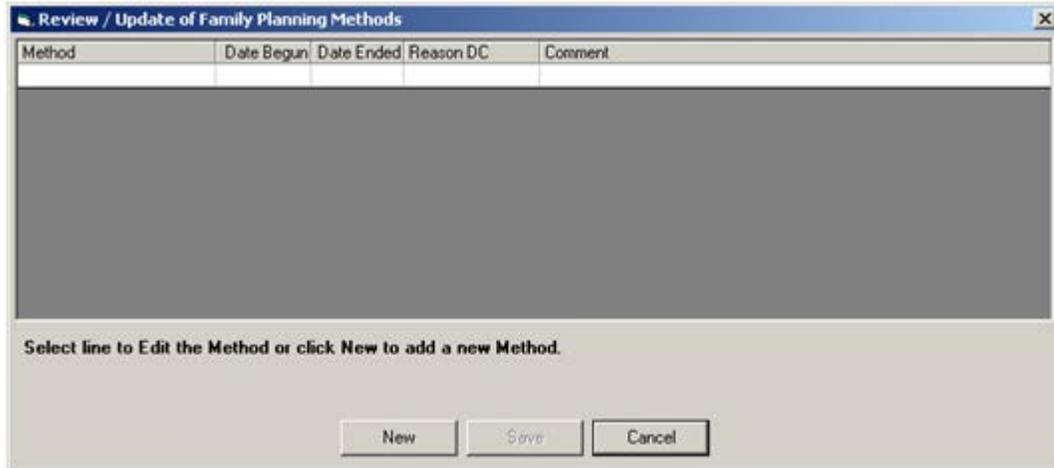


Figure 2-16: Review/Update of Family Planning Methods

After clicking **New**, the application displays the **Edit Method Information** group box to the **Review/Update of Family Planning Methods** dialog.

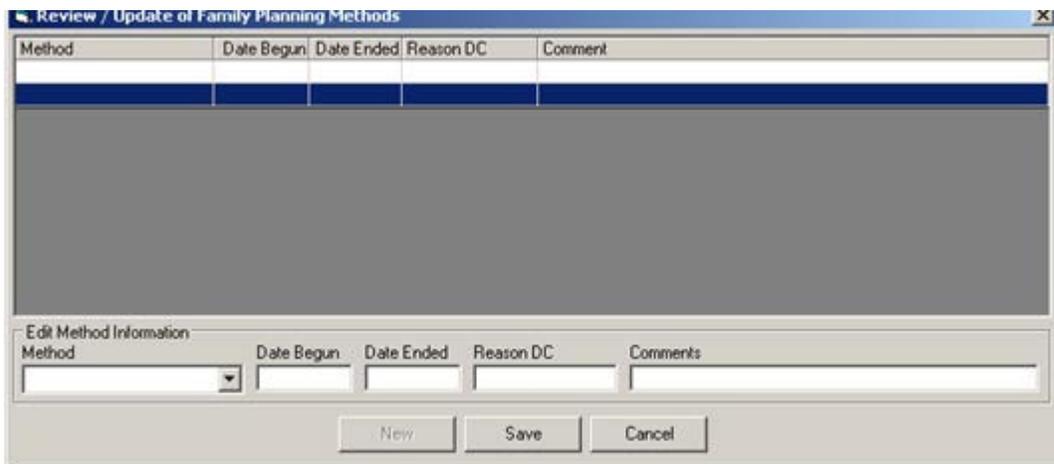


Figure 2-17: Edit Method Information group box added to dialog

Complete the New process by selecting an option from the **Method** drop-down list, by adding the date begun, and clicking **Save**. Do not enter an end date for methods currently being used. Repeat for additional methods.



Figure 2-18: Selecting a new method

Once stored, current (those with no end date) methods display on the **Reproductive Factors** component. If you click **Review/Update** both current and previous methods display.

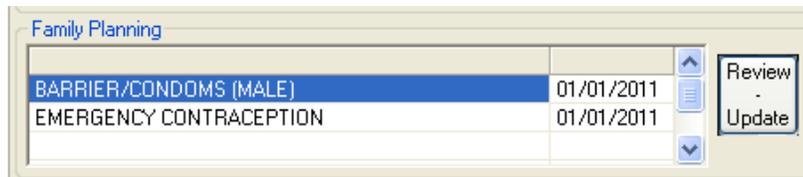


Figure 2-19: Example of adding multiple birth control methods

**Tip:** For family planning methods that were entered in error, enter the start and stop date as “now” and enter “entered in error” as the comment. Currently there is no way to delete these entries in the EHR. If you delete them in PCC they are actually deleted which is not desirable. A future patch will deliver the “logically delete” ability – meaning that the user will be able to mark the entry as entered in error, remove it from view but store an audit trail like the problem list, allergy, and vital measurements entries.

## 2.15.2 Pregnancy

The Reproductive Factors displays five estimated due dates with optional comments for the user to enter.

- **Definitive** – determined by the OB provider. Might or might not be one of the most current EDDs listed (see below).
- **By LMP** – determined by a calculation from Last Menstrual Period (user calculates, not automatic).
- **By Ultrasound** – determined by ultrasound. Accuracy is variable depending on estimated weeks gestation at the time of the ultrasound.
- **By Clinical Parameters** – determined by measurements and physical exam.
- **Method Unknown** – can be used to transcribe an EDD from an outside provider who did not specify method used to determine.

## **3.0 Parameters**

### **3.1 APSP AUTO RX CII PRESCRIBING**

This parameter now honors quick orders from order dialog menu.

## 4.0 System Set up and Configuration

### 4.1 Add Asthma Control Zones to EHR

To add the Asthma Zones to the EHR, add the **Asthma Zones** object in Design Mode to the desired location.

**Tip:** Ask your users for suggestions on where to place this component for incorporation into workflow. Consider placing the Asthma Zone object near your POV component. This could be done by using a tabbed notebook and placing the Asthma Zone object on the tab behind the POV.

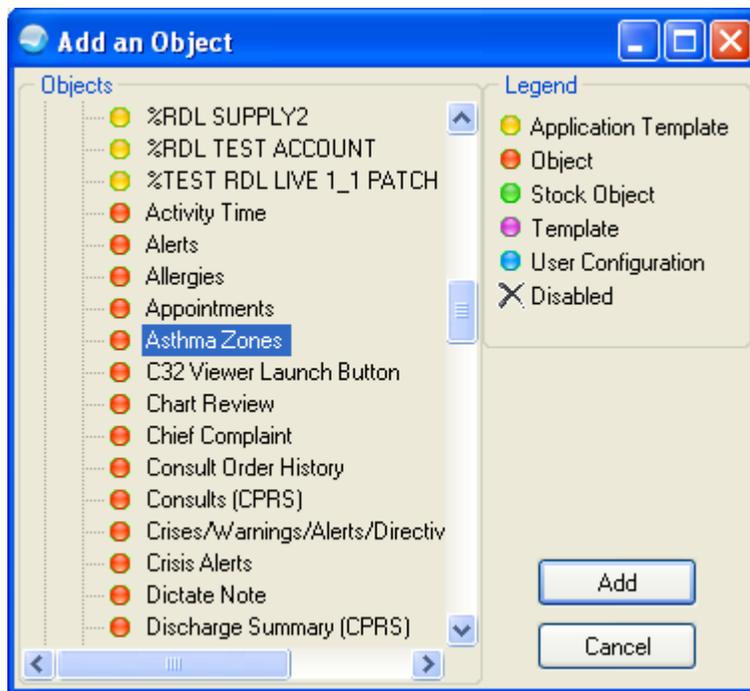


Figure 4-1: Add Asthma Zones to EHR GUI

### 4.2 Add Patient Goals to EHR Template

To add the Patient Goals to the EHR, add the **Patient Goals** object in Design Mode to the desired location. Due to the size of the component, we suggest that Patient Goals be placed on its own tab.

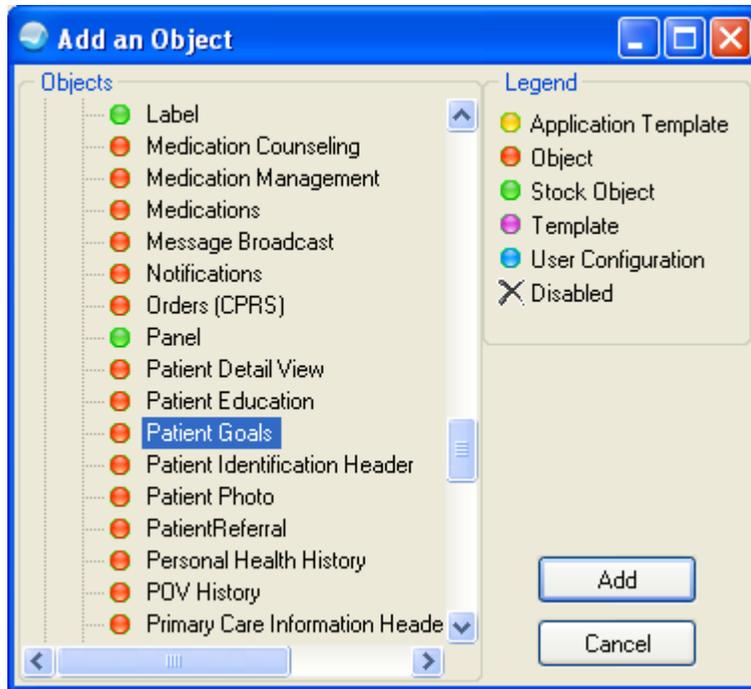


Figure 4-2: Add Patient Goals component to GUI

## Contact Information

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

**Phone:** (505) 248-4371 or (888) 830-7280 (toll free)

**Fax:** (505) 248-4363

**Web:** <http://www.ihs.gov/GeneralWeb/HelpCenter/Helpdesk/index.cfm>

**Email:** [support@ihs.gov](mailto:support@ihs.gov)