



Clinical Reminders

Manager's Manual

PXRM*2*18

February 2012

Product Development
Office of Information and Technology
Department of Veterans Affairs

Preface

Purpose of Manager's Manual

This manual provides reference information for Clinical Reminders menus and options. It can serve both as a reference manual and a tutorial for Clinical Application Coordinators (CACs) and Clinical Reminders Managers who are just becoming familiar with Clinical Reminders.

To get further help information, please enter a Remedy ticket or call the National Help Desk: (1-888-596-4357).

Recommended Users

- Clinical Reminders Managers
- Clinical Application Coordinators (CACs)
- Department of Veterans Affairs Medical Center (VAMC) Information Resources Management (IRM) staff

Related Manuals

Documentation	Documentation File name
Release Notes	PXRM_2_18_RN.PDF
Installation Guide	PXRM_2_18_IG.PDF
Technical Manual	PXRM_2_TM.PDF
User Manual	PXRM_2_18_UM.PDF

Manuals are available in Portable Document Format (PDF) at the following locations:

Albany - 152.127.1.5 - anonymous.software
Hines - 152.129.1.110 - anonymous.software
Salt Lake City - 152.131.2.1 - anonymous.software

Clinical Reminders documentation can also be found in the VistA Documentation Library:

<http://vista.med.va.gov/vdl/> or <http://www.va.gov/vdl>

Web Sites

Site	URL
National HSD&D Reminders site	http://vista.med.va.gov/reminders
VA/DOD Guidelines - Office of Quality and Performance	http://vaww.oqp.med.va.gov/CPGintra/cpg/cpg.htm
VHA Software Document Library	http://www.va.gov/vdl/
National Clinical Reminders Committee	http://vaww.portal.va.gov/sites/ncrcpublic/default.aspx

Revision History

Revision Date	Page(s)	Description	Project Manager	Author
Dec 2011	Through-out	Updates per reviews by Product Support team.	Al Ebert	JoAnn Green
Nov 2011	344	Updated Computed Findings section.	Al Ebert	JoAnn Green
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October 2007	Page 6	Updated National Reminders list	Tim Landy	JoAnn Green
October 2007	Page 149	Added description of new option, Copy Location List	Tim Landy	JoAnn Green
October 2007	Page 260	Added description of new option, TIU Template Reminder Dialog Parameter	Tim Landy	JoAnn Green
October 2007	Page 220	Updates to description of Mental Health Dialog functionality	Tim Landy	JoAnn Green
October 2007	Page 290	Added description of new option, Edit Number of MH Questions	Tim Landy	JoAnn Green
September 2007	Page 116	Added new function finding, NUMERIC	Tim Landy	JoAnn Green
June 2007	Through-out	Changes per patch 6	Tim Landy	JoAnn Green
September 2006	Pages 291-325	Changes to Patient Lists and Extract Management descriptions	Tim Landy	Debbie Trost, JoAnn Green
July 2006	Page 144	Location List change	Tim Landy	JoAnn Green

Revision Date	Page(s)	Description	Project Manager	Author
May-June 2006	Page 325	Extract Management option changes	Tim Landy	JoAnn Green
March 2006	Page 27	Added descriptions of new computed findings for appointments	Gloria Smith	JoAnn Green
February 2006	291	Rewrite of Patient List section, based on changes to software and need for more explanation and clarification	Gloria Smith	Debbie Trost
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January-February 2006	Through-out	Updates, based on changes or corrections in software	Gloria Smith	JoAnn Green
July-August 2005	Through-out manual	Changes for Patch 4	Gloria Smith	JoAnn Green
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Introduction

The Clinical Reminder system helps caregivers deliver higher quality care to patients for both preventive health care and management of chronic conditions, and helps ensure that timely clinical interventions are initiated.

Reminders assist clinical decision-making and also improve documentation and follow-up, by allowing providers to easily view when certain tests or evaluations were performed and to track and document when care has been delivered. They can direct providers to perform certain tests or other evaluations that will enhance the quality of care for specific conditions. The clinicians can then respond to the reminders by placing relevant orders or recording clinical activities on patients' progress notes.

Clinical Reminders may be used for both clinical and administrative purposes. However, the primary goal is to provide relevant information to providers at the point of care, for improving care for veterans. The package benefits clinicians by providing pertinent data for clinical decision-making, reducing duplicate documenting activities, assisting in targeting patients with particular diagnoses and procedures or site-defined criteria, and assisting in compliance with VHA performance measures and with Health Promotion and Disease Prevention guidelines.

Patch 18 Changes

The High Risk Mental Health Patient – National Reminder and Flag project includes a national reminder and reminder dialog that mental health professionals can use to follow up on patients with the “High Risk of Suicide” patient record flag, who missed their Mental Health appointments. The project also includes reports to facilitate follow-up on these patients by Suicide Prevention Coordinators and other Mental Health professionals.

Veterans Health Administration (VHA) mental health officials estimate that there are 1,000 suicides per year among veterans receiving care within VHA and as many as 5,000 per year among all living veterans. This request supports the Secretary's Mental Health Strategic Plan that contains several initiatives pertaining to suicide prevention, including “Develop methods for tracking veterans with risk factors for suicide and systems for appropriate referral of such patients to specialty mental health care.”

Major objectives of this project include:

1. Identifying those veterans who are at risk for suicide (Sites define this locally in the Patient Record Flag.)
2. Preventing high risk, depressed patients from failing to get appropriate care if they miss appointments. The plan is to evaluate patients for depression so that appropriate referrals can be made, identify those veterans with a history of suicide attempt or suicidal ideation who miss an appointment, notify the mental health professional of the missed appointment, and track efforts to reach this veteran. If the veteran is not reached after three attempts, a staff member may need to call other patient contacts or request a welfare check.

The purpose of this project is to release 1) two new Scheduling reports that identify no-show “high risk for suicide” patients that missed their MH appointments, 2) a new national reminder and reminder dialog that will be used by providers to document results of following up with a high risk for suicide patient that missed a MH appointment, and 3) provide a health summary type with MH-specific supporting information.

Phase 1: The first release of the High Risk Mental Health Patient- Reminder and Flag (HRMHP) project includes five patches, which will be installed as a combined build. This Installation Guide describes installing and setting up the elements of this release. The second phase of this project will be released in a future build.

1. SD*5.3*578

This Scheduling patch provides two new MH NO SHOW Scheduling Reports for use by Suicide Prevention Coordinators and other Mental Health professionals. The reports will support following up with High Risk for Suicide patients that missed a scheduled MH appointment.

2. DG*5.3*836

This Registration – Patient Record Flag patch provides new interfaces used by the Scheduling and Reminder patches to determine the High Risk for Suicide flag status on a specified date.

3. PXR*2*18

This patch creates a national reminder to notify clinicians of a patient's risk of suicide and creates a dialog that the clinicians can use to document follow-up with the high risk patients when they miss MH appointments.

- HIGH RISK MH NO-SHOW FOLLOW-UP Reminder Definition
- HIGH RISK MH NO-SHOW Follow-up Reminder Dialog

This Clinical Reminder patch supports the Scheduling patch by providing a national Reminder Location List of Mental Health stop codes used for scheduled appointments. Additionally, this patch includes miscellaneous clinical reminder maintenance changes. Details of all the Clinical Reminder changes can be found in the Release Notes.

4. GMTS*2.7*99

This patch installs four Health Summary Components and two Health Summary Types, a single Health Summary Object, and a single TIU/Health Summary object.

5. TIU*1*260

The Text Integration Utility patch contains a single Health Summary Object and a single new TIU Health Summary object based on the new VA-MH HIGH RISK PATIENT Health Summary Type from GMTS*2.7*99. The TIU/HS object will be used in the VA-MH HIGH RISK NO SHOW FOLLOW-UP Reminder Dialog distributed in PXR*2*18.

See the Clinical Reminders patch 18 Release Notes for specific details about enhancements and changes in patch 18 and related GMTS, OR, and TIU patches.

Phase 2 will contain the following:

- DG*5.3*849 DGP NEW CAT1 FLAG AND CONVERSION

- TIU*1*265 – PRF CAT I TITLE HIGH RISK FOR SUICIDE
- SD*5.3*588 – Proactive High Risk MH Patient Next Appointments Report
- PXR*2*24 – New patch for reminder scheduling, extract, and reporting tools
- OR*3*348 – Order Entry changes for the Mental Health Treatment Coordinator - Ability to select a Mental Health Treatment Coordinator as a notification recipient to receive notifications in CPRS.
- YS*5.01*103 – Mental Health Assistant 3 (MHA3) patch with new Suicide Behavior Report (SBR) instrument

The SBR is a new mental health template that will be a new entry in the MH TESTS & SURVEYS file (#601.71) and will be distributed nationally as an enhancement to the Mental Health Assistant 3.0 Package. This instrument will be used by MH professionals to assess and reassess the High Risk for Suicide patient's behavior.

Patch 16 (PXR*2*16) Changes

The Clinical Reminders patch PXR*2*16 and bundled patches (OR*3.0*280, PSJ*5.0*226) released new functionality that enables sites to create their own CPRS Order Checks using Clinical Reminder Definitions or Terms. Both Reminder Exchange and the Review Date Report have been enhanced to support the Clinical Reminder Order Check functionality. This patch contains a new computed finding, VA-ACTIVE PATIENT RECORD FLAGS. This computed finding will allow sites to evaluate whether a patient has a specific active record flag on the date of evaluation.

Sites can create local order checks using the Clinical Reminder functionality. These Order Checks will occur at the time the user clicks on the accept button when placing an order in CPRS. This functionality is available with PXR*2.0*16 and CPRS 28. The set-up of a Clinical Reminders Order Check consists of two parts:

- Creating a group of orderable items that the rules should be applied to.
- Creating the rules that will be applied to the orderable item when accepting an order in CPRS. It will be possible to have the same orderable item in multiple groups. Each rule assigned to the different groups will be evaluated when placing the orderable item in CPRS. The order check groups and the rule will be stored in the Reminder Order Check file, file #801

Note: Sites should evaluate all requests to create a Clinical Reminder Order Check to determine the importance of adding it. The more reminders that are used in an order check, the more they could affect the performance of the order check system. This file stores a pointer to an entry in the Orderable Item file, file #101.43. The reminder Order Check file **will not** automatically be updated with changes to the Orderable Item file, such as inactivating an existing orderable item, or if an ancillary package adds an item to the Orderable Item file. The entries in Reminder Order Check file, file #801 need to be evaluated by the site anytime an update is done to the Orderable Item file, file #101.43. The site will need to determine if it needs to remove an orderable item from an existing group or if it needs to add an orderable item to existing group.

A new menu Reminder Orderable Item Group Menu ...[PXRm ORDERABLE ITEM GROUP MENU] has been added to the Reminder Managers Menu [PXRm MANAGERS MENU]

NOTE: *A follow-up patch, PXRm*2*22, will provide enhancements to the order checking process.*

Patch 17 (PXRm*2*17) Changes

This project released a new national reminder and reminder dialog to be used by Polytrauma Specialty providers to identify potential OEF/OIF Polytrauma patients and mark the patient with a Polytrauma Marker (health factor) when appropriate.

The Polytrauma Marker project includes two patches:

PXRm*2*17 - Clinical Reminder patch with Polytrauma Marker reminder/dialog

USR*1*33 - ASU patch with API that checks to see if a user is a member of a specific User Class

This project was requested by the Office of Patient Care Services (PCS) to provide a means of improving care provided to veterans and active duty patients suffering from blast-related polytrauma (multiple complex injuries). VHA has identified this as one of several initiatives that will support health care of Operation Iraqi Freedom and Operation Enduring Freedom (OIF/OEF) veterans.

The Polytrauma Assessment reminder definition contains a new national reminder term which will be pre-defined with the new computed finding for the ASU User Class. Sites will be required to add the Computed Finding Parameter to the national reminder term. The parameter should specify the local ASU User Class that identifies specialty provider members that focus on Polytrauma and Rehabilitation services at the local facility.

The Polytrauma Assessment reminder uses a series of national Reminder Taxonomies to determine whether the patient has multiple diagnoses that identify the patient as a potential Polytrauma patient. The combination of the diagnoses found and the user's ASU user class will determine whether the reminder is applicable to the patient.

If the reminder is applicable to the patient and the patient has not been previously assessed for Polytrauma, the reminder will be DUE and will appear on the cover sheet and in the reminder drawer on the CPRS notes tab.

The reminder will be resolved by the provider responding to reminder dialog responses that result in the assessment that the patient "is" or "is not" an OEF/OIF Polytrauma patient. The responses will cause Health Factors to be created that make the reminder no longer due.

If the CPRS user views Clinical Maintenance output for the Polytrauma Assessment reminder and the user is not a member of the ASU User Class, then a message will be included in the Patient Cohort section indicating that the ASU User Class was not found.

The new Polytrauma Assessment reminder dialog was created outside the OI Field Office and tested at three sites based on input from Rehabilitation Service stakeholders.

This reminder/dialog includes branching logic that will use the new national reminder term that is defined with the ASU user class used by the reminder definition. The branching logic will check to see if the CPRS user is a member of the ASU user class before continuing with the reminder dialog. If the CPRS user is not a member of the ASU user class, then the reminder dialog will display text indicating the reminder is not applicable and the user is not the appropriate user to complete the reminder dialog.

Completing the reminder dialog will cause a progress note to be created and Health Factors will be populated in PCE. These health factors will be used by future reminder definition evaluation to indicate the reminder is resolved.

National Reminders

National reminders are clinical reminders and reminder dialogs that have gone through an approval process for national distribution. Some national reminders are related to statutory, regulatory, or Central Office mandates such as Hepatitis C, and MST,. Other national reminders are being developed under the guidance of the [National Clinical Reminders Committee \(NCRC\)](#).

Guideline-related reminders are developed for two reasons:

1. To provide reminders for sites that don't have reminders in place for a specific guideline (e.g., HTN, HIV).
2. To provide a basic set of reminders to all sites to improve clinical care, and also allow roll-up data for measurement of guideline implementation and adherence (e.g., IHD, Mental Health).

Updates to National Reminders in Patch 18

1. Updated branching logic reminders for OEF/OIF screening:
 - a. Fix the problem that patients who do not have the required LSSD entry are not having the items show as due when they have been done.
 - b. Remove refusals and other exclusions from the branching logic – if not done, then show the item as open and allow the parent reminder to use the exclusions instead of also evaluating them in the branching logic. This makes all 7 of the branching logic reminders consistent.
2. Updated the URLs for MH screening.
3. Added '0' to the Within Category Rank for EF-NO BLAST/EXPLOSION INJURY and EF-NO BULLET INJURY in the reminder VA-EMBEDDED FRAGMENTS RISK EVALUATION.
4. Added occurrence count of 4 to AUD C in the alcohol screening reminder.
5. Fixed header/info text in AAA reminder.
6. Distributed H1N1 reminders and dialog via patch and distribute and inactivate.
7. Updated VA-ALCOHOL F/U POS AUDIT-C dialog to display the education and advice interventions without a box around both and also to have the results of an AUDIT-10 go into the progress note.
8. Distributed the updates to the VA-MHV INFLUENZA VACCINE reminder.
9. Added VA-TB/POSITIVE PPD.

Detailed descriptions:

1. Updated branching logic reminders
VA-BL DEPRESSION SCREEN
Removed RT.VA-ACTIVE DUTY
Cohort: changed to due for all
Resolution: changed to resolve for any entry that is not before the LSSD
Changed the logic from
MRD(VA-DEPRESSION SCREEN NEGATIVE,VA-DEPRESSION SCREEN POSITIVE)>MRD(VA-LAST SERVICE SEPARATION DATE)
To
MRD(VA-DEPRESSION SCREEN POSITIVE,VA-DEPRESSION SCREEN NEGATIVE)'<MRD(VA-LAST SERVICE SEPARATION DATE)

VA-BL ALCOHOL SCREEN

Removed RT.VA-ACTIVE DUTY
Cohort: change to due for all
Removed exclusions
Resolution: changed to resolve for any entry that is not before the LSSD

VA-BL PTSD SCREEN

Removed RT.VA-ACTIVE DUTY
Cohort: change to due for all
Removed exclusions
Resolution: change to resolve for any entry that is not before the LSSD
Add a '0' to the Within Category Rank for the health factors.

VA-BL OEF/OIF EMBEDDED FRAGMENTS

VA-BL OEF/OIF FEVER

VA-BL OEF/OIF GI SX

VA-BL OEF/OIF SKIN SX

Removed RT.VA-IRAQ/AFGHAN PERIOD OF SERVICE and substitute CF.VA-
LAST SERVICE SEPARATION DATE
Removed RT.VA-ACTIVE DUTY
Cohort: change to due for all
Resolution: change to resolve for any entry that is not before the LSSD

2. Updated URLs
VA-ALCOHOL USE SCREEN (AUDIT-C)
VA-DEPRESSION SCREENING
VA-PTSD SCREENING
3. VA-EMBEDDED FRAGMENTS RISK EVALUATION: Added '0' to the Within Category Rank for EF-NO BLAST/EXPLOSION INJURY and EF-NO BULLET INJURY
4. VA-ALCOHOL USE SCREENING (AUDIT-C)
 - a. Added occurrence count of 4 to AUD C in the alcohol screening reminder
 - b. Updated the dialog by changing 'Optional open and optional complete (partial complete possible)' to 'Optional open and required complete or cancel before finish'.
5. Fixed grammatical error in VA-TEXT INFO SCREEN FOR AAA
6. Distributes reminders VA-INFLUENZA H1N1 IMMUNIZATION, VA-INFLUENZA H1N1 IMMUNIZATION HIGH RISK, and dialog VA-INFLUENZA H1N1 IMMUNIZATION (DIALOG). Distribute as INACTIVE.
7. Updated VA-ALCOHOL F/U POS AUDIT-C dialog to display the education and advice interventions without a box around both and also to have the results of an AUDIT-10 go into the progress note. Add an * to the word 'required' in 2 of the captions.
8. Distributes the updates to the VA-MHV INFLUENZA VACCINE reminder which update the age range and also the date of the reminder term for vaccination for the '10-'11 flu season.
9. Added VA-TB/POSITIVE PPD. This updates the taxonomy VA-TB/POSITIVE PPD by adding the ICD diagnosis code 795.51

Updates to National Reminders in Patch 12

The following Reminder components were updated and redistributed with PXR*2*12:

Component	Name	Change
RD	VA-ALCOHOL AUDIT-C POSITIVE F/U EVAL	Added SUD; added text dialog element for local health summary object for prior AUDIT-C display; reversed order of feedback and advice; made nothing required
RD	VA-EMBEDDED FRAGMENTS RISK EVALUATION	New
RD	VA-IRAQ & AFGHAN POST-DEPLOY SCREEN	Added a FF to the cohort logic
RD	VA-TBI SCREENING	Changed dialog to have documentation of discussion of positive screen
RL	VA-OEF/OIF EXCLUSION STOPS	Added ultrasound stop code
RM	VA-ALCOHOL AUDIT-C POSITIVE F/U EVAL	Added SUD clinic visit exclusions
RM	VA-DEPRESSION SCREEN	Updated URLs and description.
RM	VA-EMBEDDED FRAGMENTS RISK EVALUATION	New
RM	VA-IRAQ/AFGHAN POST DEPLOYMENT SCREEN	Uses OEF/OIF in dialog and logic; updated logic, fixed active duty problem
RM	VA-MHV BMI	Removed >, added text changes from NCP
RM	VA-MHV COLORECTAL CANCER SCREEN	Added upper age limit
RM	VA-OEF/OIF MONITOR REPORTING	Removed dialog from this reporting reminder.
RM	VA-TBI SCREENING	Changes to OEF/OIF in dialog and logic, fixed active duty issue
RT	VA-ACTIVE DUTY	Updated active duty term description
RT	VA-ALCOHOL NONE PAST 1YR	Removed MH test from term VA-ALCOHOL NONE PAST 1YR
RT	VA-IRAQ/AFGHAN SERVICE	Updated to include CFs for OEF/OIF service that point to the patient file
RT	VA-MHV HIGH RISK FOR FLU	Updated to use new taxonomy
RT	VA-MHV HIGH RISK FOR PNEUMONIA	Updated to use new taxonomy
RX	VA-OEF/OIF MONITOR	New extract
TX	VA-BREAST TUMOR	Changed description to include mass, pain, abnormality
TX	VA-DEPRESSION	Updated to FY09 definition
TX	VA-DEPRESSION OUTPT	Updated to FY09 definition
TX	VA-DIABETES	Added 250.91-250.93
TX	VA-HIGH RISK FOR FLU	New
TX	VA-HIGH RISK FOR FLU/PNEUMONIA	Inactivated
TX	VA-HIGH RISK FOR PNEUMONIA	New

Updates to National Reminders in Patch 11

Reminder	Change
VA-ALCOHOL AUDIT-C POSITIVE F/U EVAL	Fixed logic
VA-ALCOHOL USE SCREEN (AUDIT-C)	Changes to dialog. Removed date from term and moved to the health factor for “No alcohol in the past 1 year”
VA-BL OEF/OIF FEVER	Fixed logic
VA-BL OEF/OIF GI SX	Fixed logic
VA-BL OEF/OIF SKIN SX	Fixed logic
VA-DEPRESSION SCREENING	Changes to terms and dialog; verify/report any changes
VA-IRAQ & AFGHANISTAN POST DEPLOYMENT SCREEN	Multiple changes: <ul style="list-style-type: none"> • Added Combat Vet to logic • Excluded those who did not serve from denominator • Added cognitive impairment to exclusions • Added done elsewhere to resolutions • Updated dates of health factors for depression/PTSD to 10/1/08
VA-MHV COLORECTAL CANCER SCREEN	VA-MHV BARIUM ENEMA added
VA-MHV HYPERTENSION	Uses reminder terms
VA-MHV DIABETES RETINAL EXAM	Frequency depends on no retinopathy only
VA-PTSD SCREENING	Added veteran status Added Acute Illness to the dialog

National Reminders

Highlighted items are new or edited with PXR*2*18.

1. VA-*BREAST CANCER SCREEN
2. VA-*CERVICAL CANCER SCREEN
3. VA-*CHOLESTEROL SCREEN (F)
4. VA-*CHOLESTEROL SCREEN (M)
5. VA-*COLORECTAL CANCER SCREEN (FOBT)
6. VA-*COLORECTAL CANCER SCREEN (SIG.)
7. VA-*FITNESS AND EXERCISE SCREEN
8. VA-*IHD 412 ELEVATED LDL REPORTING
9. VA-*IHD 412 LIPID PROFILE REPORTING
10. VA-*IHD ELEVATED LDL REPORTING
11. VA-*IHD LIPID PROFILE REPORTING
12. VA-*INFLUENZA IMMUNIZATION
13. VA-*PNEUMOCOCCAL VACCINE
14. VA-*PROBLEM DRINKING SCREEN
15. VA-*SEATBELT AND ACCIDENT SCREEN
16. VA-*TETANUS DIPHTHERIA IMMUNIZATION
17. VA-*TOBACCO USE SCREEN
18. VA-*WEIGHT AND NUTRITION SCREEN
19. VA - AAA SCREENING
20. VA-ADVANCED DIRECTIVES EDUCATION
21. VA-ALCOHOL ABUSE EDUCATION
22. VA-ALCOHOL ABUSE SCREEN (AUDIT-C)
23. VA-ALCOHOL AUDIT-C POSITIVE F/U EVAL
24. VA-ALCOHOL USE SCREEN (AUDIT-C)
25. VA-ANTIPSYCHOTIC MED SIDE EFF EVAL
26. VA-ARCH CONTRACT CARE ELIGIBILITY
27. VA-BL ALCOHOL SCREEN
28. VA-BL ALCOHOL WITHIN SAFE LIMIT
29. VA-BL DEPRESSION SCREEN
30. VA-BL OEF/OIF FEVER
31. VA-BL OEF/OIF GI SX
32. VA-BL OEF/OIF OTHER SX
33. VA-BL OEF/OIF SERVICE INFO ENTERED
34. VA-BL OEF/OIF SKIN SX
35. VA-BL PTSD SCREEN
36. VA-BLOOD PRESSURE CHECK
37. VA-BREAST EXAM
38. VA-BREAST SELF EXAM EDUCATION
39. VA-CV ELIG W/HF FOR NO SERVICE

40. VA-CV INELG W/HF FOR SERVICE
41. VA-DEPRESSION SCREENING
42. VA-DIABETIC EYE EXAM
43. VA-DIABETIC FOOT CARE ED.
44. VA-DIABETIC FOOT EXAM
45. VA-DIGITAL RECTAL (PROSTATE) EXAM
46. VA-EMBEDDED FRAGMENTS RISK EVALUATION (Edited)
47. VA-EMBEDDED FRAGMENTS SCREEN (Edited)
48. VA-EXERCISE EDUCATION
49. VA-FECAL OCCULT BLOOD TEST
50. VA-FLEXISIGMOIDOSCOPY
51. VA-GEC REFERRAL CARE COORDINATION
52. VA-GEC REFERRAL CARE RECOMMENDATION
53. VA-GEC REFERRAL NURSING ASSESSMENT
54. VA-GEC REFERRAL SOCIAL SERVICES
55. VA-GEC REFERRAL TERM SET (CC)
56. VA-GEC REFERRAL TERM SET (CR)
57. VA-GEC REFERRAL TERM SET (NA)
58. VA-GEC REFERRAL TERM SET (SS)
59. VA-HEP C RISK ASSESSMENT
60. VA-HTN ASSESSMENT BP $\geq 140/90$
61. VA-HTN ASSESSMENT BP $\geq 160/100$
62. VA-HTN LIFESTYLE EDUCATION
63. VA-IHD ELEVATED LDL
64. VA-IHD LIPID PROFILE
65. VA-INFLUENZA VACCINE
66. VA-IRAQ & AFGHAN POST-DEPLOY SCREEN
67. VA-MAMMOGRAM
68. VA-MHV BMI > 25.0
69. VA-MHV CERVICAL CANCER SCREEN
70. VA-MHV COLORECTAL CANCER SCREEN
71. VA-MHV DIABETES FOOT EXAM
72. VA-MHV DIABETES HBA1C
73. VA-MHV DIABETES RETINAL EXAM
74. VA-MHV HYPERTENSION
75. VA-MHV INFLUENZA VACCINE
76. VA-MHV LDL CONTROL
77. VA-MHV LIPID MEASUREMENT
78. VA-MHV MAMMOGRAM SCREENING
79. VA-MHV PNEUMOVAX
80. VA-MST SCREENING
81. VA- NATIONAL EPI LAB EXTRACT

- 82. VA- NATIONAL EPI RX EXTRACT
- 83. VA-NUTRITION/OBESITY EDUCATION
- 84. VA-OEF/OIF MONITOR REPORTING
- 85. VA-PAP SMEAR
- 86. VA-PNEUMOVAX
- 87. VA-POLYTRAUMA MARKER
- 88. VA-POS DEPRESSION SCREEN FOLLOWUP
- 89. VA-PPD
- 90. VA-PSA
- 91. VA-PTSD REASSESSMENT (PCL
- 92. VA-PTSD SCREENING
- 93. VA-QUERI REPORT IHD ELEVATED LDL
- 94. VA-QUERI REPORT LIPID STATUS
- 95. VA-SEATBELT EDUCATION
- 96. VA-TBI SCREENING
- 97. VA-TBI/POLYTRAUMA REHAB/REINTEGRATION PLAN OF CARE
- 98. VA-TOBACCO EDUCATION
- 99. VA-VANOD SKIN ASSESSMENT
- 100. VA-VANOD SKIN REASSESSMENT
- 101. VA-WEIGHT
- 102. VA-WH MAMMOGRAM REVIEW RESULTS
- 103. VA-WH MAMMOGRAM SCREENING
- 104. VA-WH PAP SMEAR REVIEW RESULTS
- 105. VA-WH PAP SMEAR SCREENING

Patches Released since V2.0

PXRM*2*1 – National Women's Health Reminders
PXRM*2*2 – GEC NATIONAL ROLLUP
PXRM*2*3 – NATIONAL MYHEALTHEVET REMINDERS
PXRM*2*4 – REMOVAL OF OLD-STYLE MRD
PXRM*2*5 – NATIONAL VA-IRAQ & AFGHAN POST-DEPLOY SCREEN REMINDERS
PXRM*2*6 – INTEGRATION WITH NEW MENTAL HEALTH PACKAGE
PXRM*2*8 – NATIONAL VA-TBI SCREENING REMINDER
PXRM*2*9 – PXRM CODE SET UPDATE protocol fix
PXRM*2*10 – SKIN RISK ASSESSMENT
PXRM*2*11 – REMINDER AND DIALOG UPDATES
PXRM*2*15 – NATIONAL VA-TBI/POLYTRAUMA REHABILITATION DIALOG
PXRM*2*12 – MH REMINDERS AND DIALOGS
PXRM*2*16 – CLINICAL REMINDER ORDER CHECKS
PXRM*2*17 – POLYTRAUMA MARKER
PXRM*2*20 – ARCH PILOT - ACCESS RECEIVED CLOSER TO HOME 1.0

Reminders Maintenance

This section describes all the major components of the Clinical Reminders application. It describes the menus and options, and provides examples of how to use these to define reminders, create dialogs, and how to modify, troubleshoot, and maintain them for your site.

Reminder Managers Menu

This is a list of the options and menus on the Reminders Managers Menu. (Yellow-highlighted options are new with PXRMM*2*18.)

Reminders Managers Menu	[PXRMM MANAGERS MENU]
CF	Reminder Computed Finding Management ... [PXRMM CF MANAGEMENT]
	CRL Computed Finding List
	CFI Reminder Computed Finding Inquiry
	CFE Add/ Edit Computed Finding
RM	Reminder Definition Management ... [PXRMM REMINDER MANAGEMENT]
	RL List Reminder Definitions
	RI Inquire about Reminder Definition
	RE Add/Edit Reminder Definition
	RC Copy Reminder Definition
	RA Activate/Inactivate Reminders
	RH Reminder Edit History
	ICS Integrity Check Selected
	ICA Integrity Check All
SM	Reminder Sponsor Management [PXRMM SPONSOR MANAGEMENT]
	SL List Reminder Sponsors
	SI Reminder Sponsor Inquiry
	SE Add/Edit Reminder Sponsor
TXM	Reminder Taxonomy Management ... [PXRMM TAXONOMY MANAGEMENT]
	TL List Taxonomy Definitions
	TI Inquire about Taxonomy Item
	TE Add/Edit Taxonomy Item
	TC Copy Taxonomy Item
	TX Selected Taxonomy Expansion
	TXV Verify all taxonomy expansions
	TXA Expand all Taxonomies
TRM	Reminder Term Management ... [PXRMM TERM MANAGEMENT]
	TL List Reminder Terms
	TI Inquire about Reminder Term
	TE Add/Edit Reminder Term
	TC Copy Reminder Term
LM	Reminder Location List Management ... [PXRMM LOCATION LIST MANAGEMENT]
	LL List Location Lists
	LI Location List Inquiry
	LE Add/Edit Location List
	LC Copy Location List
RX	Reminder Exchange [PXRMM REMINDER EXCHANGE]
RT	Reminder Test [PXRMM REMINDER TEST]
OS	Other Supporting Menus ... [PXRMM OTHER SUPPORTING MENUS]
	TM PCE Table Maintenance ...
	PC PCE Coordinator Menu ...
	HS Health Summary Coordinator's Menu ...
	EF Print Blank Encounter Forms ...
	QO Enter/edit quick orders
INFO	Reminder Information Only Menu ... [PXRMM INFO ONLY]
	RL List Reminder Definitions
	RI Inquire about Reminder Definition
	TXL List Taxonomy Definitions
	TXI Inquire about Taxonomy Item

	TRL	List Reminder Terms
	TRI	Inquire about Reminder Term
DM	SL	List Reminder Sponsors
	Reminder Dialog Management ... [PXRМ DIALOG MANAGEMENT]	
	DP	Dialog Parameters ...
	RS	Reminder Resolution Statuses
	HR	Health Factor Resolutions
	FP	General Finding Type Parameters
	FI	Finding Item Parameters
	TD	Taxonomy Dialog Parameters
	DI	Reminder Dialogs
	DR	Dialog Reports
	OR	Reminder Dialog Elements Orphan Report
	ER	Empty Reminder Dialog Report
	ALL	Check all active reminder dialogs for invalid items
	CH	Check Reminder Dialog for invalid items
	CP	CPRS Reminder Configuration [PXRМ CONFIGURATION MANAGEMENT]
	CA	Add/Edit Reminder Categories
	CL	CPRS Lookup Categories
	CS	CPRS Cover Sheet Reminder List
MH	MH	Mental Health Dialogs Active
	PN	Progress Note Headers
	RA	Reminder GUI Resolution Active
	DL	Default Outside Location
	PT	Position Reminder Text at Cursor
	WH	WH Print Now Active
	GEC	GEC Status Check Active
	TIU	TIU Template Reminder Dialog Parameter
	NP	New Reminder Parameters
RP	Reminder Reports ... [PXRМ REMINDER REPORTS]	
	RD	Reminders Due Report
	RDU	Reminders Due Report (User)
	RDT	User Report Templates
	EPT	Extract EPI Totals
	EPF	Extract EPI List by Finding and SSN
	EQT	Extract QUERI Totals
	GEC	GEC Referral Report
	REV	Review Date Report
	FUR	Finding Usage Report
MST	Reminders MST Synchronization Management ... [PXRМ MST MANAGEMENT]	
	SYN	Reminders MST Synchronization
	REP	Reminders MST Synchronization Report
PL	Reminder Patient List Menu ... [PXRМ PATIENT LIST MENU]	
	LRM	List Rule Management
	PLM	Patient List Management
PAR	Reminder Parameters ... [PXRМ REMINDER PARAMETERS]	
	ESD	Edit Site Disclaimer
	EWS	Edit Web Sites
	MH	Edit Number of MH Questions
ROI	Reminder Orderable Item Menu	
	OE	Add/Edit Reminder Orderable Item Group
	OI	Reminder Orderable Item Inquiry
	OT	Reminder Orderable Item Group Test
XM	Reminder Extract Menu [PXRМ EXTRACT MENU]	
	MA	Reminder Extract Management
	EP	Extract Definition Management
	EC	Extract Counting Rule Management
	EG	Extract Counting Group Management
	LR	List Rule Management
GEC	GEC Referral Report	[GEC REFERRAL REPORT]

Reminder Managers Menu Descriptions

Option	Option Name	Syn	Description
Reminder Computed Finding Management	PXRM CF MANAGEMENT	CF	This option provides tools for viewing or editing reminder computed findings.
Reminder Definition Management	PXRM REMINDER MANAGEMENT	RM	This menu contains options for creating, copying, and editing reminder definitions, as well as the options for maintaining the parameters used by CPRS for reminder processing.
Reminder Sponsor Management	PXRM SPONSOR MANAGEMENT	SM	A Reminder Sponsor is the organization or group that sponsors a Reminder Definition, such as the Office of Quality and Performance. Options on this menu let you view, define, or edit Reminder Sponsors.
Reminder Taxonomy Management	PXRM TAXONOMY MANAGEMENT	TXM	The REMINDER TAXONOMY file is used to define a range of coded values from ICD Diagnosis codes, ICD Operation/Procedures codes, and CPT codes that can be viewed as being part of a clinical category (taxonomy). Each entry has a low value and a high value. The software will search for matches on all the codes between the low and high values inclusive. If there is a match then the taxonomy finding will be true for the patient. This menu contains options for copying, editing taxonomies, as well as listing and inquiring about specific taxonomies.
Reminder Term Management	PXRM TERM MANAGEMENT	TRM	This menu allows you to edit, map, and view reminder terms.
Reminder Location List Management	PXRM LOCATION LIST MANAGEMENT	LM	Location Lists are a new kind of reminder finding, that allow you to define a list of locations and give it a name. When reminders are evaluated, the finding will be true if the patient had a visit at one of the locations in the list in the specified date range.
Reminder Exchange	PXRM REMINDER EXCHANGE	RX	This option allows sites to exchange reminder definitions, dialogs, and other reminder components via MailMan messages and host files.
Reminder Test	PXRM REMINDER TEST	RT	This utility helps you test and troubleshoot your reminders when you create them or when you have problems.
Other Supporting Menus	PXRM OTHER SUPPORTING MENUS	OS	This option contains menus from related packages such as PCE and Health Summary.
Reminder Information Only Men	PXRM INFO ONLY	INFO	This menu provides information-only options for users who need information about reminders but do not need the ability to make changes.
Reminder Dialog Management	PXRM DIALOG MANAGEMENT	DM	This menu allows maintenance of the parameters used by CPRS for reminder dialog processing.

Option	Option Name	Syn	Description
Reminder Reports	PXRM REMINDER REPORTS	RP	This is a menu of Clinical Reminder reports that clinicians can use for summary and detailed level information about patients' due and satisfied reminders. This option also contains reports that clinical coordinators can use to assign menus to specific users.
Reminders MST Synchronization Management	PXRM MST MANAGEMENT	MST	This option provides the Clinical Reminders MST management options. These options give you the ability to synchronize the MST History file #29.11 with MST data recorded elsewhere and to determine when the synchronization was last done.
Reminder Patient List Menu	PXRM PATIENT LIST MENU	PL	This menu contains options to manage list rules and patient lists.
Reminder Orderable Item Menu	PXM ORDER	OI	This menu contains options to allow sites to create Reminder Order Checks
Reminder Parameters	PXRM REMINDER PARAMETERS	PAR	This menu contains the options, Edit Site Disclaimer and Edit Web Sites, which allow you to modify the parameters for these items.
Reminder Extract Menu	PXRM EXTRACT MENU	XM	This option allows management of extract definitions, extract runs, and extract transmissions.
GEC Referral Report	PXRM GEC REFERRAL REPORT	GEC	This is the option that is used to generate GEC Reports. GEC (Geriatrics Extended Care) is used for referral of geriatric patients to receive further care

Reminder Computed Finding Management

A computed finding is an M routine that takes a standard set of arguments. The computed finding must be entered into the REMINDER COMPUTED FINDING file #811.4 before it can be used as a finding in a reminder definition or term. When none of the standard finding types will work, a computed finding can be used.

The Clinical Reminders application provides a set of national computed findings. Sites can also create their own.

NOTE: Only programmers who have "@" access can actually write the routine and enter it into the REMINDER COMPUTED FINDINGS file. Once it is in the file, Reminders Managers can use the computed finding in reminder definitions.

Changes in Patch 18

Admission ward and discharge ward were added as CSUB data to the VA-WAS INPATIENT computed finding.

A new computed finding named VA-FILEMAN DATE was added. It uses the Computed Finding Parameter to take any date format used in Clinical Reminders and sets the date of the finding to that date. The purpose is to use it in a function finding to make date comparisons. For example, did a finding occur within 60 days of today?

A new computed finding VA-RANDOM NUMBER was added. This is based on an idea from a site that used a locally developed computed finding to generate random numbers for partitioning patients in a research study. NOTE: This CF is intended strictly for research use, and not for clinical use.

Four new computed findings to support the needs of PACT (Patient Aligned Care Teams) were added.

- 1 VA-PCMM PATIENTS ASSIGNED TO A PRACTITIONER
2 VA-PCMM PATIENTS ASSIGNED TO A TEAM
3 VA-PCMM PC TEAM AND INSTITUTION
4 VA-PCMM PRACTITIONERS ASSIGNED TO A PATIENT

The first two are list types and the second two are multiple types.

NOTE: INCLUDE was added as an optional parameter to 1, 2, and 4 of the above.

Instructions for using INCLUDE are in the following section of the help for VA-PCMM PATIENTS ASSIGNED TO A PRACTITIONER (similar help is in the other PCMM computed findings):

NAME: VA-PCMM PATIENTS ASSIGNED TO A PRACTITIONER	
ROUTINE: PXRMPCCMM	ENTRY POINT: PTPR
PRINT NAME: VA-PCMM Patients Assigned to a Practitioner	
TYPE: LIST	
DESCRIPTION: This list type computed finding returns a list of patients assigned to a practitioner in the date range defined by Beginning Date/Time	

and Ending Date/Time. A patient will be on the list if they were assigned to the practitioner at anytime during the date range. The Computed Finding Parameter is used to specify the practitioner. It can be either the IEN or the exact name (.01 field) from file #200, the New Person file.

The Computed Finding Parameter can be used to pass the optional parameter INCLUDE. If you want to use this parameter, it is passed as the second piece of the Computed Finding Parameter. The possible values of INCLUDE are:

- 0 - include patients who were assigned anytime in the date range.
- 1 - include patients who were assigned for the entire date range.

The default is 0.

The format for the computed finding parameter is: PRACTITIONER^INCLUDE

For example, if the practitioner is PROVIDER,ONE and you want the value of INCLUDE to be 1 then the computed finding parameter would be:
PROVIDER,ONE^1

Two new computed findings for working with patient record flags were created: VA-PATIENT RECORD FLAG INFORMATION and VA-PATIENT RECORD FLAG LIST. Note that these computed findings require patch DG*5.3*836.

A site reported that they have some patients whose height has been entered as 0 and it causes the BMI computed finding to take an error. (It is difficult to determine how those got entered because the Vitals package normally will not allow heights of 0 to be entered.)

A check was added to the BMI and BSA computed findings to ignore any height entries with a value of 0.

The patch init will make sure all national computed findings have print names starting with "VA-". In conjunction with this, the print name maximum length of 40 characters was increased to 64.

Several other national print name problems were corrected:

VA-PATIENT TYPE print name, PATIENT TYPE, was changed to VA-Patient Type.

VA-TREATING FACILITY LIST print name, Treating Facility list, was changed to VA- Treating Facility List.

VA-WH MAMMOGRAM ABNORMAL IN WH PKG print name was blank; it was changed to VA-WH Mammogram Abnormal in WH PKG.

VA-WH PAP SMEAR ABNORMAL IN WH PKG print name was blank; it was changed to VA-WH Pap Smear Abnormal in WH PKG.

The computed finding VA-APPOINTMENTS FOR A PATIENT was not doing proper date reversal for a negative Occurrence Count; this was fixed. It was also enhanced to display additional lines of text for each of the field numbers that can be passed in.

Change in Patch 16

This patch contains a new computed finding, VA-ACTIVE PATIENT RECORD FLAGS.

This computed finding will allow sites to evaluate whether a patient has a specific active record flag on the date of evaluation.

Changes in Patch 12

A computed finding inquiry (CFI) option was added to the Computed Finding Management menu. This option displays detailed information about a computed finding.

Several computed findings were modified and a number of new computed findings are included:

- A new version of VA-BMI is included. The new version is a multi-occurrence computing finding, in contrast with the old version which was a single occurrence computed finding. It provides for more efficient date range searching and the ability to get more than one occurrence.
- VA-BSA is a new multi-occurrence computed finding for calculating body surface area.
- Note: Sites using the Bar Code Expansion handheld devices from Care Fusion will need to install Vitals patch GMRV*5*25 and the fix from Care Fusion to remove bad dates from the GMRV VITAL MEASUREMENT file before using these computed findings. Because these bad dates can cause problems with the VA-BMI and VA-BSA computed findings, GMRV*5.0*25 is a required build.
- The description for the VA-COMBAT VET ELIGIBILITY computed finding was incorrect and has been corrected.
- VA-DATE FOR AGE is a new computed finding that uses the COMPUTED FINDING PARAMETER to pass an age in years and returns the date the patient will be that age as the date of the computed finding.
- VA-EMPLOYEE is a new computed finding that returns true if the patient is an employee.
- The VA-PROGRESS NOTE computed finding was changed so it can use either the TIU DOCUMENT DEFINITION title or IEN in the computed finding parameter.
- The CF VA-IS INPATIENT is a new computed finding that will be true if the patient was/ an inpatient on the evaluation date. The following "CSUB" values will be available:
 - ADMISSION DATE/TIME (FileMan format)
 - ADMISSION TYPE
 - ATTENDING PHYSICIAN
 - DATE (FileMan format)
 - PRIMARY PROVIDER
 - TREATING SPECIALTY
 - WARD LOCATION

- Due to limitations in the single occurrence computed finding structure, date range checking is limited to a single date. Since weight measurements are made more frequently than height measurements, the date of the weight measurement was used as the date of the single occurrence computed finding. Because of this, it was possible for the height measurement to be outside of the date range and still have the computed finding return a BMI value. Conversion of the BMI computed finding to the multiple occurrence form eliminated this problem; now both height and weight are checked to make sure they are in the date range. Consequently, there may be cases where the new multiple occurrence version cannot return a BMI, even though the single occurrence version did.

Reminder Computed Finding Management Menu

Syn.	Name	Option Name	Description
CFE	Add/Edit Reminder Computed Finding	PXRM COMPUTED FINDING EDIT	This option provides for editing of computed finding entries in the REMINDER COMPUTED FINDINGS file. This option requires programmer's access.
CFI	Computed Finding Inquiry	PXRM COMPUTED FINDING INQUIRY	Allows a user to display the information about a computed finding in an easy-to-read format.
CFL	Reminder Computed Finding List	PXRM COMPUTED FINDING LIST	This option lists the computed findings that are defined at a site.

Steps to Create a Computed finding

NOTE: The person who performs the step is listed in parentheses.

1. Write an M routine (developer).

For a *single occurrence* computed finding, the routine takes the following arguments: (DFN, TEST,DATE,DATA,TEXT). DFN is the patient ien and will be set when the computed finding routine is called. The following variables should be set by the computed finding routine.

- TEST is the logical value of the finding, set to 1 for true and 0 for false. A value for TEST must always be returned.
- DATE is the date of the finding in FileMan format. Set it to null if the finding is false

DATA is a value associated with the finding that can be used by the CONDITION field; when the Condition is evaluated V=DATA. Additional values that can also be used in the CONDITION can be passed back in DATA. This is done using subscripts, i.e., DATA("COLOR")="RED" and the CONDITION could test for color with a statement like I V("COLOR")="BLUE". The choice of what data is passed back and the associated subscripts are completely up to the programmer, however they should be well documented so the person using the computed finding knows what is available. See the DESCRIPTION field below for information on how to document your computed finding. Setting the DATA array is optional, but it must be set if a CONDITION is going to be used with the computed finding.

TEXT is text to be displayed in the Clinical Maintenance output. Setting this is optional.

Note: Now that multiple occurrence computed findings are available, creation of new single occurrence computed finding is generally discouraged because single occurrences are less flexible and less powerful.

For a *multiple occurrence* computed finding, the routine takes the following arguments: (DFN, NGET, BDT, EDT, NFOUND, TEST, DATE, DATA, TEXT).

The following variables will be set when the computed finding routine is called:

- DFN is the patient ien.
- NGET is the number of findings to search for.
- BDT is the beginning date and time for the finding search.
- EDT is the ending date and time for the finding search.

The following variables should be set by the computed finding routine:

NFOUND is the number of findings found in the date range, it should never be larger than NGET. If there are no true findings then NFOUND should be set to 0.

Since this form of the computed finding returns multiple occurrences, each of the following variables is an array with NFOUND entries. Entry number 1 should be the most recent in the date range, entry number 2 the second most recent, and so on up to NFOUND entries. If NGET is negative, then the date ordering should be reversed with entry 1 the oldest in the date range, entry 2 the second oldest, and so on. If there are no true findings, then NFOUND should be 0. NFOUND must have a value when the computed finding routine returns. For the Nth true occurrence, set the following values:

- TEST(N) is the logical value of the finding for occurrence N; this is set to 1 for each occurrence that is found. (Required)
- DATE(N) is the date of the finding in FileMan format for occurrence N. (Required)
- DATA is an array of values that can be used by the CONDITION field. For the N'th occurrence set DATA(N,"VALUE")=VALUE. You can also pass back other data using subscripts just as for a single occurrence computed finding, the only difference being the occurrence subscript comes first. For example, DATA(N,"COLOR")="RED".
- TEXT(N) is text to be displayed in the Clinical Maintenance output for occurrence N. (Optional)

There is no need to set the unsubscripted values of TEST and DATE in a multi-occurrence computed finding.

In most cases it makes sense to create any new computed findings as multi-occurrence computed findings. They have more flexibility than single occurrence computed findings and can operate more efficiently. This is especially true with respect to date range searches. The multi-occurrence computed finding is passed the beginning and ending dates as parameters, so it can return results from the specified date range. The original single occurrence computed finding has no provision for passing the beginning and ending dates, so it would just return the most recent occurrence. The computed finding driver must then check the date returned to determine if it is in the date range. If it is not, then there is no way to go back and look for an older result that might be in the date range.

For a *list* computed finding, the routine takes the following arguments:

- (NGET, BDT, EDT, PLIST, PARAM)
- NGET, BDT, and EDT have the same meaning as above. (See below for a discussion of the last argument.) The routine should return the list in a ^TMP global as follows:

- `^TMP($J,PLIST,DFN,N)=DAS^DATE^FILENUM^ITEM^VALUE`
- N is a number specifying the number of the occurrence. N=1 is the most recent occurrence, N=2 the second most recent occurrence, and so on. N should never exceed NGET.
- DAS is the DA string. See the Clinical Reminder Index Technical Manual for an explanation of what a DA string is.
NOTE: DAS is optional for a list computed finding, but if it's not set, a NULL should be used; i.e., `^TMP($J,PLIST,DFN,N)=^DATE^FILENUM^ITEM^VALUE`
- DATE is the date of the finding.
- FILENUM is the file number where the result was found.
- ITEM is the internal entry number of the item that was found.
- VALUE is the default value, if there is not one then it should be null.

If you want to use a Condition with the computed finding, then you should return the values as follows:

`^TMP($J,PLIST,DFN,N,SUB)=DATA(N,"SUB")`

At a minimum, one of the subscripts must be "VALUE"; i.e., `DATA(N, "VALUE")`; then in the Condition you can use either V or `V("VALUE")`, because V is set equal to `V("VALUE")`. If you create other subscripts, you can use them in the Condition. For example:

- `^TMP($J,PLIST,DFN,1,"VALUE")=5`
- `^TMP($J,PLIST,DFN,1,"RATE")=5`
- `^TMP($J,PLIST,DFN,1,"COLOR")="RED"`

would mean in the Condition you could use `V`, `V("VALUE")`, `V("RATE")` or `V("COLOR")`

The field COMPUTED FINDING PARAMETER can be used to pass a parameter into the computed finding routine. For single and multiple occurrence computed findings, the value is passed in TEST; for list computed findings, it is passed as PARAM. The COMPUTED FINDING PARAMETER is defined as free-text field with a length of 245 characters so it can be used to pass more than one parameter. If you pass more than one parameter, you should not use "^" as the piece separator, because it will not be properly transported in Reminder Exchange. When this feature is used, it will need to be documented, so that users of the computed findings will know how to properly define the contents of the COMPUTED FINDING PARAMETER field.

Great care should be taken whenever you create a computed finding. If it is poorly written, it could affect system performance, generate errors, and produce incorrect or misleading reminder evaluation results.

Hint: make sure that you "new" all the variables you use, to avoid strange side effects.

2. Enter your computed finding into the Reminders package (developer).

Use the option Reminder Computed Finding Edit (CFE) on the Computed Findings menu to enter/register your computed finding, which makes an entry in the REMINDER COMPUTED FINDINGS file (#811.4).

File #811.4 contains a combination of nationally distributed and local entries. Nationally distributed entry names are prefixed with VA-. Local entry names can't start with VA-.

Complete each of the following fields:

NAME (.01 field) - this is the name of the computed finding. When a computed finding is added as a finding to a reminder definition, it is done using NAME. For example, type CF.VA-BMI to add the exported VA-BMI computed finding to your reminder definition.

ROUTINE (.02 field) - this is the name of the MUMPS routine.

ENTRY POINT (.03 field) - this is the entry point in the MUMPS routine (the line tag at which that finding begins).

PRINT NAME (.04 field) - this will be displayed on the Clinical Maintenance component as the name of the computed finding. If it is blank, NAME will be used.

TYPE (5 field) – this is a set of codes that specifies what type of computed finding this is. “S” stands for single occurrence, “M” for multiple occurrence, and “L” for list. If it is blank, single will be assumed.

DESCRIPTION – This is a word-processing field that is used to document the computed finding. It is very important to include this field so that the person who is using the computed finding knows how to properly use it. During the definition editing process if a computed finding is selected as a finding the DESCRIPTION will be displayed to the user so the documentation for the computed finding will be right in front of them as they setup the computed finding.

The remaining fields are optional.

Example

Select Reminder Computed Finding Management Option: **cfe** Reminder Computed Finding Edit

Select Reminder Computed Finding: **AJEY TEST COMPUTED FINDING**
...OK? Yes// **<Enter>** (Yes)

NAME: AJEY TEST COMPUTED FINDING Replace **<Enter>**

ROUTINE: **PXRMZC1**

ENTRY POINT: **TEST**

PRINT NAME: **Test Computed Finding**

TYPE: ?

Choose from:

M **MULTIPLE**

L **LIST**

S **SINGLE**

DESCRIPTION:

1>

CLASS: **LOCAL//**

SPONSOR:

REVIEW DATE:

Example: Computed finding for determining if a patient is an inpatient

If you want it to be true, set TEST to 1.

Set the DATE="" when TEST=0 and set DATE to the date of the finding when TEST=1

Set VALUE to a value that can be tested against in the CONDITION field.

TEXT just goes back as additional info in the Clinical Maintenance view.

So, if you made one that was testing for whether or not your patient was an inpatient, it might look like this:

```
INP (DFN, TEST, DATE, VALUE, TEXT)      ;
  N VAIN
  D INP^VADPT ;IA #10061
  I +$P(VAIN(7),U,1) S TEST=1,DATE=$P(VAIN(7),U,1)
  E   S TEST=0,DATE=""
  D KVA^VADPT
  S (TEXT,VALUE)=""
  Q
```

In this example we are not going to use TEXT or VALUE, so they are set to null.

3. (Reminder Manager) Place the finding into your reminder.

Now that the finding is created and entered/registered, you may use it just like any other finding would be used. The prefix for selecting a computed finding is CF. When a computed finding is selected its description will be displayed and this will provide information on how to use the selected computed finding. This is an example of adding a computed finding to a reminder definition.


```
Select FINDING: CF.VA-DATE FOR AGE
      Searching for a REMINDER COMPUTED FINDING, (pointed-to by FINDING ITEM)
      VA-DATE FOR AGE      NATIONAL

      ...OK? Yes// Y  (Yes)
Computed Finding Description:
This computed finding returns the date on which the patient will
reach the age (in years) specified by the value of the computed
finding parameter. Both the default value and date of the finding
will be the date in FileMan format when the patient reaches the
specified age.

Fractional ages like 59.5 are not allowed and the fractional part
will be ignored.

Editing Finding Number: 1
FINDING ITEM: VA-DATE FOR AGE//
REMINDER FREQUENCY:
MINIMUM AGE:
MAXIMUM AGE:
RANK FREQUENCY:
USE IN RESOLUTION LOGIC:
USE IN PATIENT COHORT LOGIC:
BEGINNING DATE/TIME:
ENDING DATE/TIME:
OCCURRENCE COUNT:
CONDITION:
CONDITION CASE SENSITIVE:
USE STATUS/COND IN SEARCH:
COMPUTED FINDING PARAMETER: 65
FOUND TEXT:
  No existing text
  Edit? NO//
NOT FOUND TEXT:
  No existing text
  Edit? NO//
```

See the [Hines Computed Findings website](#) for further information about computed findings. Also look in SHOP,ALL and on the [Clinical Reminders website](#) for examples.

National Computed Findings

VA-ACTIVE PATIENT RECORD FLAGS
VA-ADMISSIONS FOR A DATE RANGE
VA-AGE
VA-AGENT ORANGE EXPOSURE
VA-ALLERGY
VA-APPOINTMENTS FOR A PATIENT
VA-ASU USER CLASS
VA-BMI
VA-BSA
VA-COMBAT SERVICE
VA-COMBAT VET ELIGIBILITY
VA-CURRENT INPATIENTS
VA-DATE FOR AGE
VA-DATE OF BIRTH
VA-DATE OF DEATH
VA-DISCHARGES FOR A DATE RANGE
VA-EMPLOYEE
VA-ETHNICITY
VA-FILEMAN DATE
VA-IS INPATIENT
VA-LAST SERVICE SEPARATION DATE
VA-MST STATUS
VA-OEF SERVICE
VA-OIF SERVICE
VA-PATIENT RECORD FLAG INFORMATION
VA-PATIENT RECORD FLAG LIST
VA-PATIENT TYPE
VA-PATIENTS WITH APPOINTMENTS
VA-PCMM PATIENTS ASSIGNED TO A PRACTITIONER
VA-PCMM PATIENTS ASSIGNED TO A TEAM
VA-PCMM PC TEAM AND INSTITUTION
VA-PCMM PRACTITIONERS ASSIGNED TO A PATIENT
VA-POW
VA-PRIMARY CARE PROVIDER
VA-PRIMARY CARE TEAM
VA-PROGRESS NOTE
VA-PROJECT ARCH ELIGIBILITY
VA-PROJECT ARCH ELIGIBILITY LIST
VA-PTF HOSPITAL DISCHARGE DATE
VA-PURPLE HEART
VA-RACE 2003
VA-RACE PRE 2003
VA-RANDOM NUMBER
VA-REMINDER DEFINITION
VA-SERVICE BRANCH
VA-SERVICE SEPARATION DATE
VA-SEX
VA-TREATING FACILITY LIST
VA-UNKNOWN OEF/OIF SERVICE
VA-VETERAN
VA-VIETNAM SERVICE

VA-WAS INPATIENT
VA-WH MAMMOGRAM ABNORMAL IN WH PKG
VA-WH MAMMOGRAM IN WH PKG
VA-WH PAP SMEAR ABNORMAL IN WH PKG
VA-WH PAP SMEAR IN LAB PKG
VA-WH PAP SMEAR IN WH PKG

Detailed Descriptions

VA-ACTIVE PATIENT RECORD FLAGS

This multiple occurrence computed finding will return active patient record flags. The Computed Finding Parameter is used to precisely specify what flags to search for. There are three parameters that can be used: C for category, T for type, and F for a specific flag.

The possible values are:

Category - N (national), L (local)

Type - B (behavioral), C (clinical), O (other), and R (research)

Flag - exact name of the flag

Use the "^" character to include more than one parameter in the search specification.

Some examples:

C:L - would search for local flags

C:N^T:B - would search for national flags whose type is behavioral

F:DRINKING PROBLEM - would search for the flag DRINKING PROBLEM

T:C^F:INFECTIOUS DISEASE - would search for the flag INFECTIOUS DISEASE whose type is clinical

Only active flags that meet all the specified criteria will be returned. If no search parameters are specified then no flags will be returned.

The date associated with a flag is the assigned date.

The following "CSUB" data is returned for each flag that is found:

APPRVBY - approved by
ASSIGNDT - assigned date/time
CATEGORY - category
DATE - assigned date/time
FLAG - flag name
FLAGTYPE - flag type
ORIGSITE - originating site
OWNER - owner site
REVIEWDT - review date/time
TIULINK - pointer to the TIU note (only applies if the flag is linked to a TIU note)
TIUTITLE - the note title (only applies if the flag is linked to a TIU note)

VA-ADMISSIONS FOR A DATE RANGE

This list type computed finding can be used to build a list of patients who were admitted in the specified date range. A Reminder Location List can be used to restrict the selection of patients to only the ward locations included in the location list. To do this, enter the exact .01 name of a Reminder Location List into the COMPUTED FINDING PARAMETER field. If a Reminder Location List is not used then all ward locations will be included.

The CONDITION field may also be used to select entries by any of the following CSUB subscripts:

V or V("VALUE") = the ward to which the patient was admitted
in the format of 9;3EAST (IEN;Ward Name)

V("INSTITUTION") = the name of the INSTITUTION (file #4) entry
with which the ward is associated in the format
5000;ELY;660GC (IEN;Institution Name;Station Number)

V("TYPE_OF_MVMT") = the type of movement entry from file 405.1
(e.g., REGULAR, OPT-NSC, OPT-SC, etc.)

VA-AGE

Print Name: VA-Patient Age
Class: NATIONAL
Sponsor:
Review Date:

Description:

This is a single occurrence computed finding that returns the patient's age in years. It can be used as the value in the Condition. For example: I V>50.

If the patient is deceased the age will be their age on the date of death and V("DECEASED")=1.

Edit History:

Entry Point: AGE Routine: PXRMPDEM

VA-AGENT ORANGE EXPOSURE

This computed finding will be true if the patient has an agent orange exposure registration date in the date range specified by Beginning Date/Time and Ending Date/Time.

Subscripts that can be used in a Condition are:
"LOCATION"

The default value is "LOCATION".

VA-ALLERGY

Print Name: VA-Allergy
Class: NATIONAL
Sponsor:
Review Date:

Description:

Identifies any allergies that contain either the ingredient or drug class that you specify via the Computed Finding Parameter. Ingredients will be prefixed with IN: while DR: is used for drug classes. You may also use the * as a wildcard on the end of your selection. For example, to search for the ingredient aspirin you would enter IN:ASPIRIN. For drug class MS101 you would enter DR:MS101. For all ingredients beginning with "ampi" you would type IN:AMPI*. For all MS1 related drug classes you'd enter DR:MS1*.

Note: This computed finding does not support date reversal.

Entry Point: ARTCL Routine: PXR MART

Appointment Computed Findings

These appointment computed findings allow more detailed or specific appointment information to be used in cohort or resolution logic in reminder definitions. Use the COMPUTED FINDING PARAMETER in the findings editor to filter the results. See the Descriptions and examples that follow, for instructions on how to use these computed findings.

VA-APPOINTMENTS FOR A PATIENT

This multiple occurrence computed finding returns a list of appointments for a patient in the specified date range from the Scheduling Package.

The Computed Finding Parameter can be used to specify which appointment data fields should be returned from the Scheduling package and filter the results returned based on location and status. The Computed Finding Parameter entry uses FLDS: to specify appointment data fields, STATUS: to filter specific statuses, and LL: to specify a Reminder Location List to filter locations.

FLDS, STATUS, and LL are all optional and can be defined in any order in the computed finding parameter field.

Some examples of how to use FLDS, STATUS and/or LL:

FLDS:1,2,16^STATUS:R^LL:DIABETIC LOCATIONS
STATUS:CP,CC^FLDS:25
LL:DIABETIC LOCATION

FLDS parameter information:

The appointment data fields are specified as follows:

FLDS:F1,F2,... where F1,F2,... are any of the possible ID values listed in the Available Appointment Data Fields table below.

The F1,F2,... ID values specify what data associated with the appointment will display in the clinical maintenance output. If no FLDS is specified, the default display fields will be 1,2 for APPOINTMENT DATE/TIME and CLINIC.

Additionally, each F1,F2,... specified will be returned as CSUB data that can also be used in the computed finding's CONDITION field. The CONDITION can be used to further screen the filtered appointments, returned by Scheduling, by setting the USE STATUS/CONDIN SEARCH field to YES.

For example, if you only want appointments that were checked out, use FLDS: 1,2,11 to get the APPOINTMENT DATE/TIME, CLINIC, and CHECK-OUT DATE/TIME for display purposes. The FLDS:1,2,11 will return the CSUB data "APPOINTMENT DATE/TIME", "CLINIC" and

"CHECK-OUT DATE/TIME".

CSUB values are used in the CONDITION field to do a comparison to numeric or string values. Using +V causes the CSUB data to be interpreted as numeric. Strings that cannot be converted to a number are set to zero. For example, a CONDITION such as I +V("CHECK-OUT DATE/TIME")>0 would be true if the appointment had a check-out date/time.

List of Available Appointment Data Fields table with assigned ID

ID	Field Name
----	------------

1	APPOINTMENT DATE/TIME
2	CLINIC
3	APPOINTMENT STATUS
4	PATIENT
5	LENGTH OF APPOINTMENT
6	COMMENTS
7	OVERBOOK
8	ELIGIBILITY OF VISIT
9	CHECK-IN DATE/TIME
10	APPOINTMENT TYPE
11	CHECK-OUT DATE/TIME
12	OUTPATIENT ENCOUNTER IEN
13	PRIMARY STOP CODE
14	CREDIT STOP CODE
15	WORKLOAD NON-COUNT
16	DATE APPOINTMENT MADE
17	DESIRED DATE OF APPOINTMENT
18	PURPOSE OF VISIT and SHORT DESCRIPTION
19	EKG DATE/TIME
20	X-RAY DATE/TIME
21	LAB DATE/TIME
22	STATUS
23	X-RAY FILMS
24	AUTO-REBOOKED APPOINTMENT DATE/TIME
25	NO-SHOW/CANCEL DATE/TIME
26	RSA APPOINTMENT ID
28	DATA ENTRY CLERK
29	NO-SHOW/CANCELED BY
30	CHECK-IN USER
31	CHECK-OUT USER
32	CANCELLATION REASON
33	CONSULT LINK

STATUS information:

STATUS: is used to set a filter on the appointment status; only those appointments with a status that matches the STATUS: values list will be returned. The possible values that the Scheduling API allows are:

VALUE	Description

R	SCHEDULED/KEPT
I	INPATIENT
NS	NO-SHOW
NSR	NO-SHOW, RESCHEDULED
CP	CANCELLED BY PATIENT
CPR	CANCELLED BY PATIENT, RESCHEDULED
CC	CANCELLED BY CLINIC
CCR	CANCELLED BY CLINIC, RESCHEDULED

NT NO ACTION TAKEN

If STATUS is not specified the default is R,I.

The APPOINTMENT STATUS returned by the API is a summarized list which does not include detailed statuses such as Future, Checked-In, or Checked Out. These statuses are summarized as SCHEDULED/KEPT. As a result, a CONDITION may be required to make sure you are getting the correct results. For example, if you are looking for an appointment that was kept you would set STATUS:R combined with a CONDITION of I (+V("OUTPATIENT ENCOUNTER IEN")>0)!(+V("CHECK-OUT DATE/TIME")>0) with USE STATUS/COND IN SEARCH set to YES.

LL information:

LL: Reminder Location List specifies a list of locations so that only appointments for those locations will be returned. If LL is not specified, then appointments for all locations will be returned.

VA-PATIENTS WITH APPOINTMENTS

This list computed finding returns a list of patients with appointments in the specified date range. The COMPUTED FINDING PARAMETER can be used to filter the results. The values that can be used in the parameter are:

FLDS:F1,F2,... where F1,F2 are any of the possible integer ID values listed in the table for this computed finding in the Computed Finding section of the Clinical Reminders Managers Manual. These specify what data associated with the appointment is to be returned; this data can be used in a CONDITION statement.

Field number n will be the nth piece of the value. For example FLDS:1,16 would return the Appointment Date/Time in piece 1 and Date Appointment Made in piece 16. A condition such as I \$(V,U,16)>3060301 would be true if the date the appointment was made was after March 1, 2006. If FLDS is not specified then the value will be ID=1 (Appointment Date/Time) and ID=2 (Clinic IEN and Name).

STATUS sets a filter on the appointment status; only those appointments with status on the list will be returned. The possible values for STATUS are R (Scheduled/Kept), I (Inpatient), NS (No-show), NSR (No-show, Rescheduled), CP (Cancelled by Patient), CPR (Cancelled by Patient, Rescheduled), CC (Cancelled by Clinic), CCR (Cancelled by Clinic, Rescheduled), NT (No Action Taken).

If STATUS is not specified the default is R,I.

LL:Reminder Location List specifies a list of locations so that only appointments for those locations will be returned. If LL is not specified, then appointments for all locations will be returned.

FLDS, STATUS, and LL are all optional and can be given in any order. Some examples:

FLDS:1,2,16^STATUS:R^LL:DIABETIC LOCATIONS
STATUS:CP,CC^FLDS:25
LL:DIABETIC LOCATION

VA-TREATING FACILITY LIST

This multi-occurrence computed finding returns a list of treating facilities i.e., systems that store data related to a patient. The value for each entry is:

STATION NUMBER^NAME^DATE LAST TREATED^ADT/HL7 EVENT REASON^FACILITY TYPE

STATION NUMBER, NAME, and FACILITY TYPE are from the Institution file. FACILITY TYPE is one of the entries found in the FACILITY TYPE file. ADT/HL7 EVENT REASON is a code from the ADT/HL7 EVENT REASON file. If there is no ADT/HL7 EVENT REASON then DATE LAST TREATED will also be null.

Some examples of values that are returned:

"516^BAY PINES VAMC^^^VAMC"
 "537^JESSE BROWN VAMC^3041122.110926^3^VAMC"
 "552^DAYTON^3001113.092056^3^VAMC"
 "556^NORTH CHICAGO VAMC^3050406.13^3^VAMC"
 "578^HINES, IL VAMC^3020919.2324^3^VAMC"
 "589^VA HEARTLAND - WEST, VISN 15^^^VAMC"
 "636^VA NWIHS, OMAHA DIVISION^^^VAMC"
 "673^TAMPA VAMC^3001215.1327^3^VAMC"
 "695^MILWAUKEE VAMC^3030328.13^3^VAMC"

A CONDITION can be written that uses any of the pieces of the value. For example, a CONDITION to check that the FACILITY TYPE is VAMC would be: I \$P(V,U,5)="VAMC"

Since no date can be associated with an entry, the date of evaluation will be used.

Available Appointment Data Fields

ID	FIELD NAME	DATA TYPE	Format/Valid Values	Description	Examples of Returned Data
1	APPOINTMENT DATE/TIME	DATE/TIME	YYMMDD.HHMM	The scheduled Appointment Date/Time	3031215.113 3031201.0815
2	CLINIC IEN and NAME	TEXT	ID^name	Clinic IEN and name	150;CARDIOLOGY 32;BLOOD DONOR
3	APPOINTMENT STATUS	TEXT	R (Scheduled/Kept) I (Inpatient) NS (No-Show) NSR (No-Show, Rescheduled) CP (Cancelled by Patient) CPR (Cancelled by Patient, Rescheduled) CC (Cancelled by Clinic) CCR (Cancelled by Clinic, Rescheduled) NT (No Action Taken)	The status of the appointment.	R;SCHEDULED/KEPT I;INPATIENT NS;NO-SHOW NSR;NO-SHOW & RESCHEDULED CP;CANCELLED BY PATIENT CPR;CANCELLED BY PATIENT & RESCHEDULED CC;CANCELLED BY CLINIC CCR;CANCELLED BY CLINIC & RESCHEDULED NT;NO ACTION TAKEN
4	PATIENT DFN and NAME	TEXT	DFN;name	Patient DFN and Patient Name	34877;JONES,BOB 455;SCHILSON,BRIAN
5	LENGTH OF APPOINTMENT	TEXT	NNN	The scheduled length of appointment, in minutes	20 60
6	COMMENTS	TEXT	free text	Any comments associated with the appointment	PATIENT NEEDS WHEELCHAIR
7	OVERBOOK	TEXT	Y or N	"Y" if appointment is an overbook else "N"	Y N
8	ELIGIBILITY OF	TEXT	IEN;name	Eligibility code and	2;AID & ATTENDANCE

	VISIT IEN and NAME			name associated with the appointment	7;ALLIED VETERAN 13;COLLATERAL OF VET.
9	CHECK-IN DATE/TIME	DATE/TIME	YYMMDD.HHMM	Date/time the patient checked in for the appointment	3031215.113
10	APPOINTMENT TYPE IEN and NAME	TEXT	IEN;name	Type of Appointment IEN and name	1;COMPENSATION & PENSION 3;ORGAN DONORS 7;COLLATERAL OF VET.
11	CHECK-OUT DATE/TIME	DATE/TIME	YYMMDD.HHMM	Date/time the patient checked out of the appointment	3031215.113
12	OUTPATIENT ENCOUNTER IEN	TEXT	NNN	The outpatient encounter IEN associated with this appointment	4578
13	PRIMARY STOP CODE IEN and CODE	TEXT	IEN;code	Primary Stop code IEN and code associated with the clinic.	301;350
ID	FIELD NAME	DATA TYPE	Format/Valid Values	Description	Examples of Returned Data
14	CREDIT STOP CODE IEN and CODE	TEXT	IEN;code	Credit Stop code IEN and code associated with the clinic.	549;500
15	WORKLOAD NON-COUNT	TEXT	Y or N	“Y” if clinic is non-count else “N”	Y N
16	DATE APPOINTMENT MADE	DATE	YYMMDD	Date the appointment was entered into the Scheduling system	3031215
17	DESIRED DATE OF APPOINTMENT	DATE	YYMMDD	The date the clinician or patient desired for the scheduling of this appointment.	3031215
18	PURPOSE OF VISIT	TEXT	Code (1, 2, 3, or 4) and short description (C&P, 10-10, SV, or UV)	The Purpose of Visit	1;C&P 2;10-10 3;SV 4;UV
19	EKG DATE/TIME	DATE/TIME	YYMMDD.HHMM	The scheduled date/time of the EKG tests in conjunction with this appointment	3031215.083
20	X-RAY DATE/TIME	DATE/TIME	YYMMDD.HHMM	The scheduled date/time of the X-RAY in conjunction with this appointment	3031215.083
21	LAB DATE/TIME	DATE/TIME	YYMMDD.HHMM	The scheduled date/time of the Lab tests in conjunction with this appointment	3031215.083
22	STATUS	TEXT	Status Code, Status Description, Print Status, Checked In Date/Time, Checked Out Date/Time, and Admission Movement IFN	Status Information for the Visit.	8;INPATIENT APPOINTMENT;INPATIENT/CH ECKED OUT;;3030218.1548;145844
23	X-RAY FILMS	TEXT	Y or N	“Y” if x-ray films are required at clinic else “N”	Y N

VA-ASU USER CLASS

Print Name: VA-ASU User Class

Class: NATIONAL

Sponsor:

Review Date:

Description:

This multi-occurrence computed finding returns a list of the ASU User Classes that the user belongs to. The user is the person who is running the reminder evaluation or processing a reminder dialog.

When a user is assigned to an ASU User Class, there can be an Activation Date and an Expiration Date. For the purpose of this computed finding, the date of the finding will be the Activation Date. In those cases when there is no Activation Date, 00/00/0000 will be displayed as the date of the finding. If a Beginning Date/Time and Ending Date/Time are used with the finding, then the period defined by the Activation Date and Expiration Date must overlap the period defined by the Beginning Date/Time and the Ending Date/Time in order for the finding to be true. When the Activation Date is missing, a 0 will be used in its place for determining the overlap. When the Expiration Date is missing, the evaluation date will be used in its place for determining the overlap.

The Computed Finding Parameter can be used to specify either the internal entry number or the exact name of an ASU User Class. If this option is used, then each User Class the user is a member of is checked to see if it is either the specified User Class or a child of the specified User Class. Only the User Classes that pass this test will remain on the list of the user's User Classes. For example, if the user is a member of the user class ATTENDING PHYSICIAN, which is a child of the user class PHYSICIAN, and the Computed Finding Parameter is set to "PHYSICIAN," then ATTENDING PHYSICIAN will remain on the list. If the Computed Finding Parameter was set to CARDIOLOGIST, then ATTENDING PHYSICIAN would be removed since it is not a child of CARDIOLOGIST.

If you want to specify the user class as PHYSICIAN, in the computed finding parameter field, type the following: COMPUTED FINDING PARAMETER:PHYSICIAN

This computed finding uses date ranges like drug findings do, so if the user was an active member of the class anytime during the date range, the computed finding will be true. If you want to know if the user is active as of today, then use T for the beginning and ending date/time.

Entry Point: CLASS Routine: PXRMASU

VA-BMI

The VA-BMI computed finding calculates the patient's body mass index. The value returned, which can be used in the CONDITION field of the findings, is the body mass index.

Note that date range searching is applied only to the weight and that the date of the finding is the date of the weight measurement used in the BMI calculation. The height used in the calculation will be the height measurement that occurred closest to the date of the weight measurement. This may be before or after the weight measurement.

An example of using the VA-BMI computed finding:

- 1) Create a finding in a reminder that is the VA-BMI computed finding;
- 2) Add logic in the CONDITION field to check for a particular BMI value: "I V>25";

Example: Changing the Occurrence count in a Reminder Definition using VA-BMI

```
Select Reminder Definition Management Option: RE  Add/Edit Reminder Definition

Select Reminder Definition: bmi and BSA TEST      PKR BMI AND BSA TEST  LOCAL

    Select one of the following:

        A      All reminder details
        G      General
        B      Baseline Frequency
        F      Findings
        FF     Function Findings
        L      Logic
        C      Custom date due
        D      Reminder Dialog
        W      Web Addresses

Select section to edit: f  Findings

Reminder Definition Findings

Choose from:

CF BSA                                     Finding #    2
CF VA-BMI                                Finding #    1

Select FINDING: VA-BMI

    Searching for a DRUG, (pointed-to by FINDING ITEM)

    Searching for a EDUCATION TOPICS, (pointed-to by FINDING ITEM)

    Searching for a EXAM, (pointed-to by FINDING ITEM)

    Searching for a REMINDER LOCATION LIST, (pointed-to by FINDING ITEM)

    Searching for a HEALTH FACTOR, (pointed-to by FINDING ITEM)

    Searching for a IMMUNIZATION, (pointed-to by FINDING ITEM)

    Searching for a LABORATORY TEST, (pointed-to by FINDING ITEM)

    Searching for a MH TESTS AND SURVEYS, (pointed-to by FINDING ITEM)

    Searching for a ORDERABLE ITEM, (pointed-to by FINDING ITEM)

    Searching for a RADIOLOGY PROCEDURE, (pointed-to by FINDING ITEM)

    Searching for a REMINDER COMPUTED FINDING, (pointed-to by FINDING ITEM)
VA-BMI      NATIONAL
    ...OK? Yes//    (Yes)

Computed Finding Description:
The VA-BMI computed finding calculates the patient's body mass index. The
value returned, which can be used in the CONDITION field of the findings, is
the body mass index.
```

An example of using the VA-BMI computed finding:

- 1) Create a finding in a reminder that is the VA-BMI computed finding;
- 2) Add logic in the CONDITION field to check for a particular BMI value:
"I V>25";
- 3) This finding will be evaluated to true for patients with a BMI that is greater than 25.

This is a multi-occurrence computed finding.

Editing Finding Number: 1

FINDING ITEM: VA-BMI//

REMINDER FREQUENCY:

MINIMUM AGE:

MAXIMUM AGE:

RANK FREQUENCY:

USE IN RESOLUTION LOGIC:

USE IN PATIENT COHORT LOGIC:

BEGINNING DATE/TIME:

ENDING DATE/TIME:

OCCURRENCE COUNT: 5// 6 ← You can change the occurrence count here.

CONDITION:

CONDITION CASE SENSITIVE:

USE STATUS/COND IN SEARCH:

COMPUTED FINDING PARAMETER:

FOUND TEXT:

No existing text

Edit? NO//

NOT FOUND TEXT:

No existing text

Edit? NO//

Reminder Definition Findings

Choose from:

CF BSA

Finding # 2

CF VA-BMI

Finding # 1

Select FINDING:

VA-BSA

This multi-occurrence computed finding returns the patient's body surface area (BSA) as a value that can be used in the CONDITION field. The COMPUTED FINDING PARAMETER can be used to select which formula is used to calculate the BSA.

COMPUTED FINDING PARAMETER FORMULA

M	Mosteller
D	DuBois and Dubois
H	Haycock
G	Gehan and George
B	Boyd

The default is to use the Mosteller formula. Unless there is a reason to use one of the other formulas, the recommendation is to use the default, because it is faster to calculate and the numerical results are very close to those of the other formulas.

Formulas for Body Surface Area Calculator

The Mosteller formula

$BSA (m^2) = ([Height(cm) \times Weight(kg)] / 3600)^{1/2}$ e.g. $BSA = \text{SQRT}((cm \times kg)/3600)$
or in inches and pounds: $BSA (m^2) = ([Height(in) \times Weight(lbs)] / 3131)^{1/2}$

The DuBois and DuBois² formula

$BSA (m^2) = 0.20247 \times Height(m)^{0.725} \times Weight(kg)^{0.425}$

A variation of DuBois and DuBois that gives virtually identical results is:

$BSA (m^2) = 0.007184 \times Height(cm)^{0.725} \times Weight(kg)^{0.425}$

The Haycock formula

$BSA (m^2) = 0.024265 \times Height(cm)^{0.3964} \times Weight(kg)^{0.5378}$

The Gehan and George formula

$BSA (m^2) = 0.0235 \times Height(cm)^{0.42246} \times Weight(kg)^{0.51456}$

The Boyd formula

$BSA (m^2) = 0.0003207 \times Height(cm)^{0.3} \times Weight(grams)^{(0.7285 - (0.0188 \times \text{LOG}(grams)))}$

References

1. Mosteller RD: Simplified Calculation of Body Surface Area. *N Engl J Med* 1987 Oct 22;317(17):1098 (letter)
2. DuBois D; DuBois EF: A formula to estimate the approximate surface area if height and weight be known. *Arch Int Med* 1916 17:863-71.
3. Haycock G.B., Schwartz G.J., Wisotsky D.H. Geometric method for measuring body surface area: A height weight formula validated in infants, children and adults. *The Journal of Pediatrics* 1978 93:1:62-66
4. Gehan EA, George SL, Estimation of human body surface area from height and weight. *Cancer Chemother Rep* 1970 54:225-35.
5. Boyd E, The growth of the surface area of the human body. Minneapolis: university of Minnesota Press, 1935. (I never found the original source. Instead, I copied the formula from: <http://www.ispub.com/journals/IJA/Vol2N2/bsa.htm>)

Note that the changes to VA-BMI (only applying the date range criteria to the weight) also apply to the VA-BSA computed finding, because it uses the same routine to obtain matched weight and height measurements.

VA-COMBAT SERVICE

This computed finding will be true if combat service is found in the date range the date range specified by Beginning Date/Time and Ending Date/Time.

Subscripts that can be used in a Condition are:

"LOCATION"

The default value is "LOCATION".

Entry Point: COMBAT Routine: PXRMMSER

VA-COMBAT VET ELIGIBILITY

Print Name: VA-Combat Vet Eligibility

Class: NATIONAL

Sponsor:

Review Date:

Description:

This computed finding will be true if the patient qualifies as a combat vet.

The possible values that can be used in a Condition are: "Eligible", "Expired", and "Not eligible". An example is:

I V="Not eligible"

If the patient was eligible on the evaluation date then the Value for use in a Condition will be "Eligible". If the patient is not eligible and the evaluation date is greater than the eligibility end date then the Value is "Expired", otherwise the value is "Not eligible".

Entry Point: CVELIG Routine: PXRMMSER

VA-CURRENT INPATIENTS

Print Name: VA-Current Inpatients

Class: NATIONAL

Sponsor:

Review Date:

Description:

This list type computed finding can be used to build a list of all current inpatients. Note that current refers to the actual calendar date so for this computed finding date ranges are irrelevant. A Reminder Location List can be used to restrict the selection of patients to only the ward locations included in the location list. To do this, enter the exact .01 name of a Reminder Location List into the **COMPUTED FINDING PARAMETER** field. If a Reminder Location List is not used, then all ward locations will be included.

The **CONDITION** field may also be used to select entries by any of the following CSUB subscripts:

V or V("VALUE") = the ward to which the patient is currently admitted
in the format of 9:3EAST (IEN;Ward Name)

V("INSTITUTION") = the name of the INSTITUTION (file #4) entry
with which the ward is associated in the format
5000;ELY;660GC (IEN;Institution Name;Station Number)

V("ADMIT DATE") = the date of admission for the patient in the

format 3010815.114255^AUG 15,2001@11:42:55
(Internal^External)

Entry Point: CURR Routine: PXRMINPL

VA-DATE FOR AGE

Print Name: VA-Date for Age
Class: NATIONAL
Sponsor:
Review Date:

Description:

This computed finding returns the date on which the patient will reach the age (in years) specified by the value of the computed finding parameter. Both the default value and date of the finding will be the date in FileMan format when the patient reaches the specified age.

Fractional ages like 59.5 are not allowed and the fractional part will be ignored.

Entry Point: DFA Routine: PXRMPDEM

VA-DATE OF BIRTH

Print Name: VA-Patient's Date of Birth
Class: NATIONAL
Sponsor:
Review Date:
Description:

This is a single occurrence computed finding that returns the patient's date of birth as a FileMan date. It can be used as the value in the Condition. For example: I V>2850302. The date of the finding is the date of birth so that date range searches can be used to find patients who were born in a certain time frame.

Entry Point: DOB Routine: PXRMPDEM

VA-DATE OF DEATH

Print Name: VA-Patient's Date of Death
Class: NATIONAL
Sponsor:
Review Date:

Description:

This is a single occurrence computed finding that returns the patient's date of death, if it exists, as a FileMan date. It can be used as the value in the Condition. For example: I V>2330304 The date of the finding is the date of death so that date range searches can be used to find patients who died in a certain time frame.

Edit History:

Entry Point: DOD Routine: PXRMPDEM

VA-DISCHARGES FOR A DATE RANGE

This list type computed finding can be used to build a list of patients who have been discharged in the specified date range. A Reminder Location List can be used to restrict the selection of patients to only the ward locations included in the location list. To do this, enter the exact .01 name of a Reminder Location List into the COMPUTED FINDING PARAMETER field. If a Reminder Location List is not used then all ward locations will be included.

The CONDITION field may also be used to select entries by any of the following CSUB subscripts:

V or V("VALUE") = the ward from which the patient was discharged
in the format of 9;3EAST (IEN;Ward Name)

V("INSTITUTION") = the name of the INSTITUTION (file #4) entry
with which the ward is associated in the format
5000;ELY;660GC (IEN;Institution Name;Station Number)

V("TYPE_OF_MVMT") = the type of movement entry from file 405.1
(e.g., REGULAR, OPT-NSC, OPT-SC, etc.)

VA-EMPLOYEE

This computed finding will be true if the patient was an employee during the date range specified by the beginning date and time and the ending date and time.

The following algorithm is used to determine if the patient is an employee:

1. A lookup based on the patient's SSN is made in the New Person file. If there is no match, the computed finding is false.
2. If there is a match, then a check is made to see if there is a termination date. If there is a termination date and it is prior to the beginning date and time, the computed finding is false.
3. If steps one and two are passed, then a check is made to see if the New Person file entry has a pointer to the PAID file. If the pointer exists, the computed finding is true; otherwise it is false.

VA-ETHNICITY

Print Name: VA-Patient's Ethnicity
Class: NATIONAL
Sponsor:

Review Date:

Description:

This multiple occurrence computed finding will return the patient's ethnicity values from the Patient file. If none are recorded then the computed finding will be false. This computed finding does not support date reversal.

The value of the computed finding that can be used in the Condition is the patient's ethnicity.

Edit History:

Entry Point: ETHNY Routine: PXRMPDEM

VA-FILEMAN DATE

Print Name: VA-FileMan Date

Class: NATIONAL

Sponsor:

Review Date:

Description:

The purpose of this computed finding is to allow the creation of a finding that has a specific date to be used for comparison purposes in a function finding date function.

This computed finding takes any acceptable FileMan date, via the COMPUTED FINDING PARAMETER, and sets the date of the finding and its value to that date.

See the FileMan Getting Started Manual to learn about acceptable FileMan date/time formats and abbreviations. Additionally, you may use the abbreviations T-NY or NOW-NY, where N is an integer and Y stands for years.

For example, setting the COMPUTED FINDING PARAMETER to T-3M would give the finding a date and value of the evaluation date minus three months.

Edit History:

Entry Point: FMDATE Routine: PXRMDATE

VA-IS INPATIENT

Print Name: VA-Is Inpatient

Class: NATIONAL

Sponsor:

Review Date:

Description:

This computed finding will be true if the patient was/is an inpatient on the evaluation date. The following "CSUB" values will be available:

- ADMISSION DATE/TIME (FileMan format)
- ADMISSION TYPE
- ATTENDING PHYSICIAN
- DATE (FileMan format)
- PRIMARY PROVIDER
- TREATING SPECIALITY
- WARD LOCATION

Entry Point: INP Routine: PXRMPDEM

Example:

Determining if the inpatient is on ward 7 EAST or 7 WEST (these are mental health inpatient locations)

```
I (V("WARD LOCATION")="7 EAST (SEA)")!(V("WARD LOCATION")="7 WEST (SEA)")

Ment Hlth Inpatient Locations      --STATUS-- --DUE DATE-- --LAST DONE--
                                   N/A
Patient is not on an inpatient mental health ward.

Information:
Computed Finding: Is patient admitted as inpatient?
  10/01/2010 value - 23^3 EAST (SEA)

=====

Ment Hlth Inpatient Locations      --STATUS-- --DUE DATE-- --LAST DONE--
                                   DUE NOW    DUE NOW    unknown

Cohort:
Computed Finding: Is Inpatient
  12/06/2010; Patient is an inpatient; admission date/time:
  08/13/2010@10:12:17

Information:
Computed Finding: Is patient admitted as inpatient?
  08/13/2010 value - 27^7 EAST (SEA)
```

VA-MST STATUS

Print Name: VA-MST Status
Class: NATIONAL
Sponsor: Office of Mental Health Services and Women Veterans Health Program

Review Date:

Description:

This computed finding uses \$\$GETSTAT^DGMSTAPI, DBIA #2716, to obtain a patient's MST status information.

Edit History:

Entry Point: STATUS Routine: PXRMMST

VA-OEF SERVICE

This multi-occurrence computed finding will search for periods of OEF service in the date range specified by Beginning Date/Time and Ending Date/Time.

Subscripts that can be used in a Condition are:
"LOCATION"

The default value is "LOCATION".

Entry Point: OEF Routine: PXRMMSER

VA-OIF SERVICE

Print Name: VA-OIF Service

Class: NATIONAL

Sponsor:

Review Date:

Description:

This multi-occurrence computed finding will search for periods of OIF service in the date range specified by Beginning Date/Time and Ending Date/Time.

Subscripts that can be used in a Condition are:

"LOCATION"

The default value is "LOCATION".

Edit History:

Entry Point: OIF Routine: PXRMMSER

VA-PATIENT RECORD FLAG INFORMATION

Print Name: VA-Patient Record Flag Information

Class: NATIONAL

Sponsor:

Review Date:

Description:

This multiple type computed finding returns information about the specified flag for a patient. The flag is specified by putting the exact name of the flag in the Computed Finding Parameter.

The following "CSUBS" are available:

"ACTION" The action

"APPRVBY" Approved by

"ASSIGN DT" Date and time the flag was assigned

"CATEGORY" The category

"DATE" Date of the action

"FLAGTYPE" Flag type

"REVIEW DT" Review date

"TIU TITLE" TIU title associated with the flag

Edit History:

Entry Point: GETINF Routine: PXRMPRF

VA-PATIENT RECORD FLAG LIST

Print Name: VA-Patient Record Flag List

Class: NATIONAL

Sponsor:

Review Date:

Description:

This list type computed finding returns a list of all patients who have a specified record flag assigned in the date range. The flag is specified by putting the exact name of the flag in the Computed Finding Parameter.

Edit History:

Entry Point: GETLST Routine: PXRMPRF

VA-PATIENT TYPE

Print Name: VA-Patient Type

Class: NATIONAL

Sponsor:

Review Date:

Description:

This computed finding is a single value computed finding. If a patient type is found for the patient the computed finding will be true and type will be returned as the Value.

Example: I V="ACTIVE DUTY"

Possible Values that can be returned from this computed finding are:

ACTIVE DUTY
ALLIED VETERAN
COLLATERAL
EMPLOYEE
MILITARY RETIREE
NON-VETERAN (OTHER)
NSC VETERAN
SC VETERAN
TRICARE

Edit History:

Entry Point: PATTYPE Routine: PXRMPDEM

VA-PATIENTS WITH APPOINTMENTS

Print Name: VA-Patients with Appointments

Class: NATIONAL

Sponsor:

Review Date:

Description:

This list computed finding returns a list of patients with appointments in the specified date range. The COMPUTED FINDING PARAMETER can be used to filter the results. The values that can be used in the parameter are: FLDS:F1,F2,... where F1,F2 are any of the possible integer ID values listed in the table for this computed finding in the Computed Finding section of the Clinical Reminders Manager's Manual. These specify what data associated with the appointment is to be returned; this data can be used in a CONDITION statement. Field number n will be the nth piece of the value. For example FLDS:1,16 would return the Appointment Date/Time in piece 1 and Date Appointment Made in piece 16. A condition such as I \$P(V,U,16)>3060301 would be true if the date the appointment was made was after

March 1, 2006. If FLDS is not specified then the value will be ID=1 (Appointment Date/Time) and ID=2 (Clinic IEN and Name).

STATUS sets a filter on the appointment status; only those appointments with status on the list will be returned. The possible values for STATUS are R (Scheduled/Kept), I (Inpatient), NS (No-show), NSR (No-show, Rescheduled), CP (Cancelled by Patient),

CPR (Cancelled by Patient, Rescheduled), CC (Cancelled by Clinic),
CCR (Cancelled by Clinic, Rescheduled), NT (No Action Taken).
If STATUS is not specified the default is R,I.

LL: Reminder Location List specifies a list of locations so that only appointments for those locations will be returned. If LL is not specified, then appointments for all locations will be returned.

FLDS, STATUS, and LL are all optional and can be given in any order. Some examples:

```
FLDS:1,2,16^STATUS:R^LL:DIABETIC LOCATIONS
STATUS:CP,CC^FLDS:25
LL:DIABETIC LOCATION
```

Edit History:

Edit Date: MAR 10,2006 14:59 Edit By: CRPROGRAMMER, ONE
Edit Comments:

Entry Point: APPL Routine: PXRMRDI

VA-PCMM PATIENTS ASSIGNED TO A PRACTITIONER

ROUTINE: PXRMPCCMM ENTRY POINT: PTPR

PRINT NAME: VA-PCMM Patients Assigned to a Practitioner

TYPE: LIST

CF PARAMETER REQUIRED: YES

DESCRIPTION: This list type computed finding returns a list of patients assigned to a list of practitioners in the date range defined by Beginning Date/Time and Ending Date/Time. The Computed Finding Parameter is used to specify the practitioners. Each practitioner is separated by a semicolon.

Either the IEN or the exact name (.01 field) from file #200, the New Person file, can be used. IENs and names can be mixed.

Please note: When you identify a practitioner in the Computed Finding Parameter field, only patients who are directly linked to that practitioner will be included. Any patients that are only associated with that practitioner in a PRECEPTOR role, through an assignment to an Associate Provider, will NOT be included.

To get patients who are linked to a Preceptor via an Associate Provider, you would need to run a separate report for the Resident (Associate Provider) or include an additional entry of the Computed Finding with the resident's name or IEN.

The Computed Finding Parameter can also be used to pass the optional parameter INCLUDE. If you want to use this parameter, it is passed as the second piece of the Computed Finding Parameter. The possible values of INCLUDE are:

- 0 - include patients who were assigned anytime in the date range.
- 1 – include patients who were assigned for the entire date range.

The default is 0.

The format for the computed finding parameter is: PRACTITIONER(s)^INCLUDE

Here is an example of how to specify a list of practitioners, two by name and one by IEN:

PROVIDER,ONE;345;PROVIDER,SIX

In the above example, INCLUDE is not specified, so it takes the default value of 0. To set the value of INCLUDE to 1 with the above list, the computed finding parameter would be:

PROVIDER,ONE;345;PROVIDER,SIX^1

VA-PCMM PATIENTS ASSIGNED TO A TEAM

Print Name: VA-PCMM Patients Assigned to a Team

Class: NATIONAL

Sponsor:

Review Date:

Description:

This list type computed finding returns a list of patients assigned to a team in the date range specified by Beginning Date/Time and Ending Date/Time. If the patient was assigned to the team at anytime during the date range they will be on the list. The Computed Finding Parameter is used to specify the team. It can be either the IEN or the exact name (.01 field) from file #404.51, the Team file.

The Computed Finding Parameter can be used to pass the optional parameter INCLUDE. If you want to use this parameter, it is passed as the second piece of the Computed Finding Parameter. The possible values of INCLUDE are:

- 0 - include patients who were assigned anytime in the date range.
- 1 - include patients who were assigned for the entire date range.

The default is 0.

The format for the computed finding parameter is: TEAM^INCLUDE

For example, if the team is TEAM ONE and you want the value of INCLUDE to be 1, then the computed finding parameter would be: TEAM ONE^1

Edit History:

Entry Point: PTTM Routine: PXRMPCCMM

VA-PCMM PC TEAM AND INSTITUTION

Print Name: VA-PCMM Primary Care Team & Institution

Class: NATIONAL
Sponsor:
Review Date:

Description:

This computed finding returns the patient's primary care team and institution as of the evaluation date.

Edit History:

Entry Point: INSTPCTM Routine: PXRMPCCMM

VA-PCMM PRACTITIONERS ASSIGNED TO A PATIENT

Print Name: VA-PCMM Practitioners Assigned to a Patient
Class: NATIONAL
Sponsor:
Review Date:

Description:

This multiple valued computed finding returns a list of practitioners assigned to a patient in the date range defined by the Beginning Date/Time and Ending Date/Time.

The Computed Finding Parameter can be used to pass the optional parameter INCLUDE. The possible values are:

0 - include practitioners who were assigned anytime in the date range. 1 - include practitioners who were assigned for the entire date range.

The default is 0.

For example, if you want the value of INCLUDE to be 1 then the computed finding parameter would be:
1

Edit History:

Entry Point: PRPT Routine: PXRMPCCMM

VA-POW

Print Name: VA-POW
Class: NATIONAL
Sponsor:
Review Date:

Description:

This computed finding will be true if the patient was a POW in the date range specified by Beginning Date/Time and Ending Date/Time.

Subscripts that can be used in a Condition are:
"LOCATION"

The default value is "LOCATION".

Edit History:

Entry Point: POW Routine: PXRMMSER

VA-PRIMARY CARE PROVIDER

Print Name: VA-PCMM Primary Care Provider

Class: NATIONAL

Sponsor:

Review Date:

Description:

This single occurrence computed finding returns the patient's primary care provider. This is the name field from the NEW PERSON file (#200). If no primary care provider has been assigned, the value will be null.

Edit History:

Entry Point: PROVIDER Routine: PXRMPDIN

VA-PRIMARY CARE TEAM

Print Name: VA-PCMM Primary Care Team

Class: NATIONAL

Sponsor:

Review Date:

Description:

This single occurrence computed finding returns the name of the patient's PCMM primary care team as the value. If no team has been assigned, the value will be null.

Edit History:

Entry Point: TEAM Routine: PXRMPDIN

VA-PROGRESS NOTE

Print Name: VA-Progress Note

Class: NATIONAL

Sponsor:

Review Date:

Description:

This computed finding will return multiple instances of a progress note based on the exact title of the TIU DOCUMENT DEFINITION or the internal entry number (IEN) of the TIU DOCUMENT DEFINITION. If the IEN is used, it should be preceded by the "" character. The note title or IEN is specified in the COMPUTED FINDING PARAMETER field. If you want to search for notes with a certain status, then append "^status" to the title. Status can be any of the following:

1 = UNDICTATED

2 = UNTRANSCRIBED

3 = UNRELEASED
4 = UNVERIFIED
5 = UNSIGNED
6 = UNCOSIGNED
7 = COMPLETED
8 = AMENDED
9 = PURGED
10 = TEST
11 = ACTIVE
13 = INACTIVE
14 = DELETED
15 = RETRACTED

If status is not specified, then the default is to search for notes with a status of COMPLETED.

For example, if the COMPUTED FINDING PARAMETER field contains:

ADMITTING HISTORY & PHYSICAL^5, the search would be for notes with the exact title of "ADMITTING HISTORY & PHYSICAL" and a status of "UNSIGNED."

If the IEN were used then the COMPUTED FINDING PARAMETER field would be: `1091^5

Note: The specified TIU DOCUMENT DEFINITION must have a TYPE of "DOC"; if it does not, the computed finding will always be false.

The values returned by this computed finding that can be used in the Condition are V=note title, V("TITLE")=note title and V("AUTH")=author of note.

Additional data for use in the Condition can be obtained by appending "^1" after the status; for example:

ADMITTING HISTORY & PHYSICAL^5^1
ADMITTING HISTORY & PHYSICAL^^1

(In the second example, since the status is blank, it would default to notes with a status of COMPLETED.)

The additional data is:

V("DISPLAY NAME")=Display name of TIU title.

V("EPISODE BEGIN DATE/TIME")=String_"_"_EPISODE BEGIN DATE/TIME where String is "Adm" for ward locations and "Visit" for all other location types. Date/time is in MM/DD/YY format.

V("EPISODE END DATE/TIME")=String_"_"_EPISODE END DATE/TIME where string is null if no date/time or "Dis: " if date/time exists. Date/time is in MM/DD/YY format

V("HOSPITAL LOCATION")=External format of HOSPITAL LOCATION from TIU DOCUMENT file

V("NUMBER OF IMAGES")=Number of images associated with TIU DOCUMENT entry

V("REQUESTING PACKAGE")=REQUESTING PACKAGE REFERENCE field from TIU

DOCUMENT file (internal format)

V("SUBJECT")=SUBJECT (OPTIONAL description) field from TIU DOCUMENT file
(note that characters are limited to ensure returned string is not longer than 255 characters).

Edit History:

Entry Point: NOTE Routine: PXRMTIU

VA-PROJECT ARCH ELIGIBILITY

Print Name: VA-ARCH Eligibility

Class: NATIONAL

Sponsor:

Review Date:

Description:

This multi-occurrence computing finding returns the patient's Project ARCH eligibility status for instances in the ARCH dataset that are in the date range defined by Beginning Date/Time and Ending Date/Time.

Edit History:

Entry Point: ELIG Routine: PXRARCH

VA-PROJECT ARCH ELIGIBILITY LIST

Print Name: VA-Project ARCH Patient List

Class: NATIONAL

Sponsor:

Review Date:

Description:

This list computed finding returns a list of all patients who were Project ARCH eligible in the date range defined by Beginning Date/Time and Ending Date/Time.

Edit History:

Entry Point: LIST Routine: PXRARCH

VA-PTF HOSPITAL DISCHARGE DATE

Print Name: VA-PTF Hospital Discharge Date

Class: NATIONAL

Sponsor:

Review Date:

Description:

This multi-occurrence computed finding returns a list of hospital discharge dates from the Patient Treatment File. The default is to not include fee basis or census entries. The computed finding parameter can be used to include them. The format is IN:FEE to include fee bases and IN:CEN to include census. If you want to include both, the format is IN:FEE,CEN.

Edit History:

Entry Point: HDISCH Routine: PXRMPDEM

VA-PURPLE HEART

Print Name: VA-Purple Heart

Class: NATIONAL

Sponsor:

Review Date:

Description:

This computed finding will be true if the patient is a Purple Heart recipient.

There is no value for use in a Condition.

Edit History:

Entry Point: PHEART Routine: PXRMMSER

This computed finding will be true if the patient is a Purple Heart recipient.

There is no value for use in a Condition.

VA-RACE 2003

Print Name: VA-Patient's Race, 2003 and On.

Class: NATIONAL

Sponsor:

Review Date:

Description:

This multiple occurrence computed finding returns entries from the Race Information multiple of the Patient file. Patch DG*5.3*415, compliance date

January 31, 2003, made the Race field obsolete and replaced it with the Race Information multiple. The possible values are limited to the nationally approved/supported races, which are:

Nationally Approved/Supported Races

- * AMERICAN INDIAN OR ALASKA NATIVE
- * ASIAN
- * BLACK OR AFRICAN AMERICAN
- * NATIVE HAWAIIAN OR OTHER PACIFIC ISLANDER
- * WHITE
- * DECLINED TO ANSWER

Edit History:

Entry Point: NEWRACE Routine: PXRMPDEM

Select COMPUTED FINDING: VA-4 ??

VA-RACE PRE 2003

Print Name: VA-Patient's pre-2003 Race

Class: NATIONAL

Sponsor:

Review Date:

Description:

This single occurrence computed finding returns a patient's Race value from the Patient file. Patch DG*5.3*415, compliance date January 31, 2003, made the Race field obsolete and replaced it with the Race Information multiple.

The possible values are those in the RACE file (#10). If there is an entry, the computed finding will be true; otherwise it will be false.

Edit History:

Entry Point: RACE Routine: PXRMPDEM

VA-RANDOM NUMBER

Print Name: VA-Random number

Class: NATIONAL

Sponsor:

Review Date:

Description:

This computed finding uses the MUMPS \$RANDOM function to return pseudo random numbers as the value. The Occurrence Count is the number of random numbers that will be returned and the Computed Finding Parameter is used to specify the range and optionally the number of decimal digits; the default is to generate integers, i.e., no decimal digits. The Occurrence Count entry on the finding will be an absolute value. Entering an Occurrence Count of 5 or -5 will result in 5 returns.

The format of the Computed Finding Parameter is: LB^UB^NDD, where LB is the inclusive lower bound, UB is the inclusive upper bound, and NDD is the optional number of decimal digits. LB and UB must be integers and UB must be greater than LB. If these conditions are not met then the computed finding will be false.

Some examples:

0^500 - integers in the range 0 to 500

0^1^1 - numbers in the range 0 to 1 with one decimal place

-1^1^2 - numbers in the range -1 to 1 with two decimal places

*****Please note:** This CF was developed for use with research program consideration/use. No clinical uses have been identified at present. Every evaluation of this finding on a given patient will yield different results, thus the name RANDOM. Please use caution when using this Computed Finding in a clinical setting.***

Entry Point: RANDOM Routine: PXRMMATH

VA-REMINDER DEFINITION

Print Name: VA-Reminder Definition Computed Finding

Class: NATIONAL

Sponsor:

Review Date:

Description:

This computed finding will evaluate the reminder definition that is specified by name in the COMPUTED FINDING PARAMETER field. The name that is used is the NAME field (.01) of the reminder definition, not the PRINT NAME, additionally the definition must be active. The computed finding will be false if the reminder evaluation status is CNBD or ERROR, in all other cases it will be true.

The default date of the finding is the evaluation date; this can be overridden by appending "^DATE=DUE DATE" or "^DATE=LAST DONE" to the reminder name. If a last done date cannot be determined then the date of the finding will be the evaluation date.

Examples:

VA-IHD LIPID PROFILE
VA-IHD LIPID PROFILE^DATE=LAST DONE
VA-IHD LIPID PROFILE^DATE=DUE DATE

The VALUE array, which can be used in a Condition, will contain the evaluation status, due date, and last done date. The date values are in VA FileMan format. The variable V is the reminder evaluation status. Possible values for the reminder evaluation status are:

DONE
DUE NOW
DUE SOON
RESOLVED
NEVER
N/A

Example of the Value array:

VALUE("STATUS")="DUE NOW"
VALUE("DUE DATE")=3051010.1220
VALUE("LAST DONE")=3051010.1220

Condition examples:

I V="DUE NOW"
I V("STATUS")="DUE NOW"
I V("DUE DATE")>3051010.1220
I V("LAST DONE")=3051010.1220

WARNING This computed finding can be used to evaluate a reminder inside of a reminder evaluation - do not have this computed finding evaluate the same reminder as the one being evaluated.

Edit History:

Edit Date: APR 18,2011 14:22 Edit By: CRPROGRAMMER, ONE
Edit Comments: Exchange Install

Entry Point: RDEF Routine: PXRMCDEF

VA-SERVICE BRANCH

Print Name: VA-Service Branch
Class: NATIONAL
Sponsor:
Review Date:

Description:

This multiple occurrence computed finding will return service branch information for one or more service periods in the date range.

CSUB data that can be used in a Condition are:

"BRANCH"
"DISCHARGE TYPE"
"ENTRY DATE"
"SEPARATION DATE"
"SERVICE COMPONENT"

The default value is "DISCHARGE TYPE".

Edit History:

Entry Point: SBRANCH Routine: PXRMMSER

This computed finding will return service branch information for a maximum of three service periods in the date range specified by Beginning Date/Time and Ending Date/Time.

Subscripts that can be used in a Condition are:

"BRANCH"
"DISCHARGE TYPE"
"ENTRY DATE"
"SEPARATION DATE"
"SERVICE COMPONENT"

The default value is "DISCHARGE TYPE".

VA-SERVICE SEPARATION DATES

Print Name: VA-Service Separation Date(s)
Class: NATIONAL
Sponsor: Office of Quality & Performance
Review Date:

Description:

This multiple occurrence computed finding returns service separation information. The date of the finding is the separation date.

CSUB data that can be used in a Condition are:

"BRANCH"

"SEPARATION DATE"

Edit History:

Edit Date: APR 18,2011 14:18 Edit By: CRPROGRAMMER, FOUR
Edit Comments: Exchange Install

Edit Date: APR 28,2011 Edit By: CRPROGRAMMER, FOUR
Edit Comments: Changed to multiple

Entry Point: DISCHDT Routine: PXRMMSER

VA-SEX

Print Name: VA-Patient Sex

Class: NATIONAL

Sponsor:

Review Date:

Description:

This is a single occurrence computed finding that returns a patient's sex as either "F" for female or "M" for male.

Edit History:

Edit Date: FEB 15,2005 12:38 Edit By: CRPROGRAMMER, ONE
Edit Comments: Exchange Install

Entry Point: SEX Routine: PXRMPDEM

VA-TREATING FACILITY LIST

Print Name: VA-Treating Facility List

Class: NATIONAL

Sponsor:

Review Date:

Description:

This multi-occurrence computed finding returns a list of treating facilities i.e., systems that store data related to a patient. The value for each entry is:

STATION NUMBER^NAME^DATE LAST TREATED^ADT/HL7 EVENT REASON^FACILITY
TYPE

STATION NUMBER, NAME, and FACILITY TYPE are from the Institution file.

FACILITY TYPE is one of the entries found in the FACILITY TYPE file.
ADT/HL7 EVENT REASON is a code from the ADT/HL7 EVENT REASON file. If there is no ADT/HL7 EVENT REASON then DATE LAST TREATED will also be null.

Some examples of values that are returned:

"516^BAY PINES VAMC^^^VAMC"
"537^JESSE BROWN VAMC^3041122.110926^3^VAMC"
"552^DAYTON^3001113.092056^3^VAMC"
"556^NORTH CHICAGO VAMC^3050406.13^3^VAMC"
"578^HINES, IL VAMC^3020919.2324^3^VAMC"
"589^VA HEARTLAND - WEST, VISN 15^^^VAMC"
"636^VA NWIHS, OMAHA DIVISION^^^VAMC"
"673^TAMPA VAMC^3001215.1327^3^VAMC"
"695^MILWAUKEE VAMC^3030328.13^3^VAMC"

A CONDITION can be written that uses any of the pieces of the value. For example, a CONDITION to check that the FACILITY TYPE is VAMC would be: I \$P(V,U,5)="VAMC"

Since no date can be associated with an entry, the date of evaluation will be used.

Edit History:

Edit Date: MAR 10,2006 15:00 Edit By: CRPROGRAMMER, ONE
Edit Comments:

Entry Point: TFL Routine: PXRMRDI

VA-UNKNOWN OEF/OIF SERVICE

Print Name: VA-Unknown OEF/OIF Service
Class: NATIONAL
Sponsor:
Review Date:

Description:

This multi-occurrence computed finding will search for periods of OEF/OIF service with an unknown location in the date range specified by Beginning Date/Time and Ending Date/Time.

Subscripts that can be used in a Condition are:
"LOCATION"

The default value is "LOCATION".

Edit History:

Entry Point: UNKOEIF Routine: PXRMMSER

This multi-occurrence computed finding will search for periods of OEF/OIF service with an unknown location in the date range specified by Beginning Date/Time and Ending Date/Time.

Subscripts that can be used in a Condition are:

"LOCATION"

The default value is "LOCATION".

VA-VETERAN

Print Name: VA-Patient is a Veteran

Class: NATIONAL

Sponsor:

Review Date:

Description:

This single occurrence computed finding is true if the patient is a veteran and false otherwise.

There are no values that can be used in a Condition.

Edit History:

Edit Date: APR 18,2011 14:18 Edit By: CRPROGRAMMER, ONE

Edit Comments: Exchange Install

Entry Point: VETERAN Routine: PXRMMSER

This single occurrence computed finding is true if the patient is a veteran and false otherwise.

There are no values that can be used in a Condition.

VA-VIETNAM SERVICE

Print Name: VA-Vietnam Service

Class: NATIONAL

Sponsor:

Review Date:

Description:

This computed finding will be true if Vietnam service in the time frame specified by Beginning Date/Time and Ending Date/Time is found.

There are no subscripts that can be used in a Condition.

Edit History:

Entry Point: VIET Routine: PXRMMSER

VA-WAS INPATIENT

Print Name: VA-Was Inpatient

Class: NATIONAL

Sponsor:

Review Date:

Description:

This multi-occurrence computed finding will search the Patient Movement File for a list of patient admissions and associated discharges. If the date range defined by the admission date and discharge date overlaps the date range defined by the Beginning Date/Time and Ending Date/Time, the admission discharge pair will be kept on the list. If the patient's last admission does not have an associated discharge, then the evaluation date will be used in place of the discharge date in the overlap calculation.

The date of the finding will be the admission date, unless the Computed Finding Parameter is set to "DISCH," in which case the discharge date will be used. If you want to use discharge date as the finding date, in the computed finding parameter field, type the following: COMPUTED FINDING
PARAMETER:DISCH

The "CSUB" values returned by this computed finding are:

"ADMISSION DATE"
"ADMISSION WARD"
"DISCHARGE DATE"
"DISCHARGE WARD"
"LENGTH OF STAY"

Edit History:

Entry Point: WASINP Routine: PXRMPDEM

VA-WH MAMMOGRAM ABNORMAL IN WH PKG

Print Name: VA-WH Mammogram Abnormal in WH pkg

Class: NATIONAL

Sponsor: Women Veterans Health Program

Review Date:

Description:

This computed finding calls an API to the WH package that returns up to n number for a specific date range of Mammogram procedures found in the WH package that have an abnormal diagnosis.

The result from the computed finding will be returned in the Data Array; the format of the array is:
DATA(n,"LINK")= DATA(n,"STATUS")= DATA(n,"VALUE")= DATA(n,"WVIEN")=

The data assigned to the Link subscript is a boolean value. If the value is a 1, then the Mammogram procedure was entered through the Radiology package.

The data assigned to the Status subscript is used to determine if the procedure is Open, Closed, or Pending. Pending means that the Mammogram procedure in the Women's Health package needs to have a result entered. Open means that the Mammogram procedure has been resulted but the provider has not closed the case. Closed means that a result has been entered for the procedure and it has been closed.

The data assigned to the Value subscript is used to determine the diagnosis of the Mammogram procedure. The diagnosis in the Women's Health package can either be Normal, Abnormal, or Unsatisfactory. For this computed finding, the Value should always be Abnormal

The data assigned to the WVIEN subscript is the Women's Health procedure IEN.

The text display in the Clinical Maintenance will be found in the Text

array.

Edit History:

Entry Point: MAMA Routine: PXRMCWH

VA-WH MAMMOGRAM IN WH PKG

Print Name: VA-Mammogram in WH pkg

Class: NATIONAL

Sponsor:

Review Date:

Description:

This computed finding calls an API to the WH package that returns up to n number for a specific date range of Mammogram procedures found in the WH package.

The results from the computed finding will be returned in the Data Array; the format of the array is:
DATA(n,"LINK")= DATA(n,"STATUS")= DATA(n,"VALUE")= DATA(n,"WVIEN")=

The data assigned to the Link subscript is a boolean value. If the value is a 1, then the Mammogram procedure was entered through the Radiology package.

The data assigned to the Status subscript is used to determine if the procedure is Open, Closed, or Pending. Pending means that the Mammogram procedure in the Women's Health package needs to have a result entered. Open means that the Mammogram procedure has been resulted but the provider has not closed the case. Closed means that a result has been entered for the procedure and it has been closed.

The data assigned to the Value subscript is used to determine the diagnosis of the Mammogram procedure. The diagnosis in the Women's Health package can be either Normal, Abnormal, or Unsatisfactory.

The data assigned to the WVIEN subscript is the Women's Health procedure IEN.

The text display in the Clinical Maintenance will be found in the Text array.

Edit History:

Edit Date: FEB 15,2005 12:39 Edit By: CRPROGRAMMER, ONE

Edit Comments: Exchange Install

Entry Point: MAM Routine: PXRMCWH

VA-WH PAP SMEAR ABNORMAL IN WH PKG

Print Name: VA-WH Pap Smear Abnormal in WH pkg

Class: NATIONAL

Sponsor: Women Veterans Health Program

Review Date:

Description:

This computed finding calls an API to the WH package that returns up to n number for a specific date range of Pap smear procedures found in the WH package that have an abnormal diagnosis.

The results from the computed finding will be returned in the Data Array; the format of the array is:
DATA(n,"LINK")= DATA(n,"STATUS")= DATA(n,"VALUE")= DATA(n,"WVIEN")=

The data assigned to the Link subscript is a boolean value. If the value is a 1, then the Pap smear procedure was entered through the Radiology package.

The data assigned to the Status subscript is used to determine if the procedure is Open, Closed, or Pending. Pending means that the Pap smear procedure in the Women's Health package needs to have a result entered.

Open means that the Pap Smear procedure has been resulted but the provider has not closed the case. Closed means that a result has been entered for the procedure and it has been closed.

The data assigned to the Value subscript is used to determine the diagnosis of the Pap smear procedure. The diagnosis in the Women's Health package can either be Normal, Abnormal, or Unsatisfactory. For this computed finding, the Value should always be Abnormal

The data assigned to the WVIEN subscript is the Women's Health procedure IEN.

The text display in the Clinical Maintenance will be found in the Text array.

Edit History:

Entry Point: PAPA Routine: PXRMCWH

VA-WH PAP SMEAR IN LAB PKG

No. 21

Print Name: VA-Lab Pap Smear SNOMED

Class: NATIONAL

Sponsor:

Review Date:

Description:

This computed finding pulls a list of Topography and Morphology codes that are mapped to the Pap smear entry in the Women Health package. The Pap Smear entry is defined in file #790.2 the WV Procedure Type file.

This computed finding requires that both the topography and morphology codes are mapped to the Pap smear procedure. The morphology codes must also have a result assigned to them.

This computed search will return up to n number of entries found in the Lab package for a specific data range of procedures that match the topography and morphology codes.

The output of the computed finding will be returned in the Data array. The format of the data array is:

DATA(n,"TOPH")= DATA(n,"VALUE")= DATA(n,"MORP")= DATA(n,"RESULT STATUS")=

The data found in the TOPH subscript is the Topography code in the following format: T-SNOMED CODE

The data found in the VALUE subscript is the Topography code in the following format: T-SNOMED
CODE SNOMED CODE DESCRIPTION

The data found in the MOPH subscript is the Morphology code in the following format: M-SNOMED
CODE

The data found in the RESULT STATUS subscript is the result that has been mapped to the Morphology
code in the Women's Health package. The result will either be NEM, Abnormal, Unsatisfactory, or
Unknown.

The text display in the Clinical Maintenance will be found in the Text array.

Edit History:

Edit Date: FEB 15,2005 12:31 Edit By: CRPROGRAMMER, ONE

Edit Comments: Exchange Install

Entry Point: PAPSCR Routine: PXRMCWH

VA-WH PAP SMEAR IN WH PKG

Print Name: VA-Pap Smear in WH pkg

Class: NATIONAL

Sponsor:

Review Date:

Description:

This computed finding calls an API to the WH package that returns up to n number for a specific date
range of Pap smear procedures found in the WH package.

The result from the computed finding will be returned in the Data Array; the format of the array is:
DATA(n,"LINK")= DATA(n,"STATUS")= DATA(n,"VALUE")= DATA(n,"WVIEN")=

The data assigned to the Link subscript is a Boolean value. If the value is a 1, then the Pap smear
procedure was entered through the Radiology package.

The data assigned to the Status subscript is used to determine if the procedure is Open, Closed, or
Pending. Pending means that the Pap smear procedure in the Women's Health package needs to have a
result entered.

Open means that the Pap smear procedure has been resulted but the provider has not closed the case.
Closed means that a result has been entered for the procedure and it has been closed. The data assigned
to the Value subscript is used to determine diagnosis of the Pap smear procedure. The diagnosis in the
Women's Health package can either be Normal, Abnormal, or Unsatisfactory.

The data assigned to the WVIEN subscript is the Women's Health procedure IEN.

The text display in the Clinical Maintenance will be found in the Text array.

Edit History:

Edit Date: FEB 15,2005 12:31 Edit By: CRPROGRAMMER, ONE
Edit Comments: Exchange Install

Entry Point: PAP Routine: PXRMCWH

Reminder Definition Management

This PowerPoint presentation, used for VistaU distance learning, provides a good overview of how reminder definitions work.



Introduction to
Reminder Definitions.

This menu contains options for creating, editing, copying, activating, and displaying clinical reminder definitions.

National Reminders, identified by having a CLASS of NATIONAL and a name starting with VA-, cannot be edited. If you cannot use a national reminder "as is" then copy to a new name, at which point it becomes local, and then edit the reminder to meet your requirements.

Sites may change anything in a local reminder definition to meet their needs. Findings at each site may require modification to represent local use of clinical data.

Syn.	Name	Option Name	Description
RA	Activate/Inactivate Reminders	PXRM (IN)/ACTIVATE REMINDERS	This option is used to make reminders active or inactive.
RE	Add/Edit Reminder Definition	PXRM DEFINITION EDIT	This option is used to create or edit Clinical Reminder Definitions. Nationally distributed reminder definitions items all have a "VA-" prefix. VA- for Ambulatory Care EP reminders and VA-* for National Center for Health Promotion reminders.
RC	Copy Reminder Definition	PXRM DEFINITION COPY	This option allows you to copy an existing reminder definition into a new reminder definition in the Clinical Reminder Definition file (#811.9). Once a new name is defined for the new reminder definition, the new reminder definition can be edited to reflect the local reminder definition.
RI	Inquire about Reminder Definition	PXRM DEFINITION INQUIRY	This option allows you to display a clinical reminder definition in an easy to read format.
RL	List Reminder Definitions	PXRM DEFINITION LIST	This option provides a brief summary of selected Clinical Reminder definitions.
RH	Reminder Edit History	PXRM REMINDER EDIT HISTORY	This option allows you to display a reminder definition's edit history. Edit history was formerly displayed as part of the Definition Inquiry, but was removed and made available within this option.

ICS	Integrity Check Selected	PXRM DEF INTEGRITY CHECK ONE	This option lets the user select a reminder definition for integrity checking.
ICA	Integrity Check All	PXRM DEF INTEGRITY CHECK ALL	This option runs the integrity check for all reminder definitions on the system.

Patch 18 (PXRM*2*18) Updates – fixes and enhancements – for Reminder Definitions

Changes to National Reminder Definitions

Summary:

1. Updated branching logic reminders for OEF/OIF screening:
 - a. Fixed the problem that patients who do not have the required LSSD entry are not having the items show as due when they have been done.
 - b. Removed refusals and other exclusions from the branching logic – if not done, then show the item as open and allow the parent reminder to use the exclusions instead of also evaluating them in the branching logic. This makes all 7 of the branching logic reminders consistent.
2. Updated the URLs for MH screening.
3. Added 'O' to the Within Category Rank for EF-NO BLAST/EXPLOSION INJURY and EF-NO BULLET INJURY in the reminder VA-EMBEDDED FRAGMENTS RISK EVALUATION.
4. Added occurrence count of 4 to AUD C in the alcohol screening reminder.
5. Fixed header/info text in AAA reminder.
6. Distributed H1N1 reminders and dialog via patch and distribute and inactivate.
7. Updated VA-ALCOHOL F/U POS AUDIT-C dialog to display the education and advice interventions without a box around both and also to have the results of an AUDIT-10 go into the progress note.
8. Distributed the updates to the VA-MHV INFLUENZA VACCINE reminder.

Detailed Descriptions:

1. Updated branching logic reminders

VA-BL DEPRESSION SCREEN

Removed RT.VA-ACTIVE DUTY

Cohort: changed to due for all

Resolution: changed to resolve for any entry that is not before the LSSD

Changed the logic from

MRD(VA-DEPRESSION SCREEN NEGATIVE,VA-DEPRESSION SCREEN POSITIVE)>MRD(VA-LAST SERVICE SEPARATION DATE)

To

MRD(VA-DEPRESSION SCREEN POSITIVE,VA-DEPRESSION SCREEN NEGATIVE)'<MRD(VA-LAST SERVICE SEPARATION DATE)

VA-BL ALCOHOL SCREEN

Removed RT.VA-ACTIVE DUTY

Cohort: changed to due for all

Removed exclusions

Resolution: changed to resolve for any entry that is not before the LSSD

VA-BL PTSD SCREEN

Removed RT.VA-ACTIVE DUTY

Cohort: changed to due for all
Removed exclusions
Resolution: changed to resolve for any entry that is not before the LSSD
Added a '0' to the Within Category Rank for the health factors.

VA-BL OEF/OIF EMBEDDED FRAGMENTS

VA-BL OEF/OIF FEVER

VA-BL OEF/OIF GI SX

VA-BL OEF/OIF SKIN SX

Removed RT.VA-IRAQ/AFGHAN PERIOD OF SERVICE and substitute CF.VA-LAST
SERVICE SEPARATION DATE

Removed RT.VA-ACTIVE DUTY

Cohort: changed to due for all

Resolution: changed to resolve for any entry that is not before the LSSD

2. Updated URLs
VA-ALCOHOL USE SCREEN (AUDIT-C)
VA-DEPRESSION SCREENING
VA-PTSD SCREENING
3. VA-EMBEDDED FRAGMENTS RISK EVALUATION: Added '0' to the Within Category Rank for
EF-NO BLAST/EXPLOSION INJURY and EF-NO BULLET INJURY
4. VA-ALCOHOL USE SCREENING (AUDIT-C)
 - a. Added occurrence count of 4 to AUD C in the alcohol screening reminder
 - b. Updated the dialog by changing 'Optional open and optional complete (partial complete possible)' to 'Optional open and required complete or cancel before finish'.
5. Fixed grammatical error in VA-TEXT INFO SCREEN FOR AAA
6. Distributing reminders VA-INFLUENZA H1N1 IMMUNIZATION, VA-INFLUENZA H1N1
IMMUNIZATION HIGH RISK, and dialog VA-INFLUENZA H1N1 IMMUNIZATION (DIALOG).
Distribute as INACTIVE.
7. Updated VA-ALCOHOL F/U POS AUDIT-C dialog to display the education and advice
interventions without a box around both and also to have the results of an AUDIT-10 go into the
progress note. Added an * to the word 'required' in 2 of the captions.
8. Distributing the updates to the VA-MHV INFLUENZA VACCINE reminder which update the age
range and also the date of the reminder term for vaccination for the '10-'11 flu season.

Enhancements in Patch 18

New options

Two new options were added to the reminder definition management menu:

- Integrity Check Selected
- Integrity Check All.

These can be used to check the integrity of selected or all reminder definitions. The integrity check will also be made automatically whenever a reminder definition has been edited. Fatal errors (F) that will prevent the reminder from working properly and warnings (W) will be given. The following checks are made:

F – Each finding is checked to make sure it exists

F – If either the Beginning Date/Time or Ending Date/Time contains FIEVAL(M,"DATE") or FIEVAL(M,N,"DATE"), the definition is checked to make sure it contains finding M, and if an occurrence is used, the Occurrence Count of finding M is checked to make sure it is greater than or equal to N.

F- Function findings functions of the form FUNCTION(M) and FUNCTION(M,N) are checked to make sure finding M is in the definition and the Occurrence Count of finding M is greater than or equal to N.

F – If a Custom Date Due is defined, it is checked to make sure that the findings used in the Custom Date Due all exist in the definition.

F – Patient Cohort Logic and Resolution Logic are checked to make sure that the findings used in the logic all exist in the definition.

F – Logic strings are checked to make sure their syntax is valid.

F – The definition contains Resolution Logic but does not have a baseline frequency or any findings that will set a frequency.

W – The Usage field contains a "P" and it is not a national reminder

W – The definition contains Resolution Logic but does not have a baseline frequency. It does have findings that will set a frequency. This could be a problem if all findings that set frequency are false.

New functionality was added to allow using the date of one finding to set the date range of another finding. The syntax for the date of a finding is FIEVAL(M,"DATE") or FIEVAL(M,N,"DATE"), where M is the finding number and N is the occurrence. This means you can now use dates like FIEVAL(3,"DATE")-3W as the Beginning or Ending Date/Time of another finding. The global reminder dates PXRMDOB and PXRMLAD can also be used. Note that if FIEVAL(M) is false or PXRMLAD does not exist, then the finding whose date range depends on the date of finding M will be set to false.

In conjunction with allowing FIEVAL(M,N,"DATE") to be used in Beginning Date/Time or Ending Date/Time, additional frequency units were added. The allowed values are now: H (hours), D (days), W (weeks), M (months), and Y (years). This change applies everywhere that a frequency can be used, including Beginning Date/Time, Ending Date/Time, Reminder Frequency in the Baseline Age Findings multiple, Findings multiple, Function Findings multiple, and Custom Date Due. Custom Date Due will now allow both "+" and "-"; in the past it only allowed "+".

Fixes

Remedy ticket #360708 reported a problem with the incorrect calculation of the resolution date when the resolution logic contains function findings. This was because the resolution date calculation was not properly differentiating between true and false function findings. This was corrected.

Remedy ticket #413731 pointed out a problem with non-VA meds that turned out to be two problems. The first is the existing issue where the Index for non-VA meds has incorrect entries. Remedy ticket #347730 reporting this problem was submitted September 4, 2009 and it still has not been fixed by Pharmacy. The second problem was a display issue. By default, the date of a drug finding is the stop date. If USE START DATE is true, the date of a drug finding is the start date. However, even when USE START DATE was true, the stop date was being displayed as the date of the finding. That has been corrected so that now whichever date is selected for the drug finding will be displayed as its finding date.

The Clin2 support team pointed out that the value for blood pressure can come back in either of the following forms: SYSTOLIC/DIASTOLIC or SYSTOLIC/MEAN/DIASTOLIC (the second form is not very common). If the second form comes back, then the DIASTOLIC CSUB would have the value for mean, and if \$P was used in a Condition, it would also be the mean. The code was changed so that the DIASTOLIC CSUB will always have the correct value. If you are using \$P in a Condition, we recommend that you replace it with the appropriate CSUBs. Several national definitions and terms were originally distributed with Conditions using \$P; as part of this patch they will be updated to use the SYSTOLIC and DIASTOLIC CSUBs.

The following updates are made:

Definitions:

VA-HTN ASSESSMENT BP >=140/90

FI(11) CONDITION: I \$P(V,"/",1)>139!(\$P(V,"/",2)>89)

changed to I (V("SYSTOLIC")>139)!(V("DIASTOLIC")>89)

FI(13) CONDITION: I \$P(V,"/",1)>159!(\$P(V,"/",2)>99)

changed to I (V("SYSTOLIC")>159)!(V("DIASTOLIC")>99)

VA-HTN ASSESSMENT BP >=160/100

FI(13) CONDITION: I \$P(V,"/",1)>159!(\$P(V,"/",2)>99)

changed to I (V("SYSTOLIC")>159)!(V("DIASTOLIC")>99)

VA-HTN LIFESTYLE EDUCATION

FI(11) CONDITION: I \$P(V,"/",1)>139!(\$P(V,"/",2)>89) changed to I
(V("SYSTOLIC")>139)!(V("DIASTOLIC")>89)

Terms:

VA-BP >130/80

Mapped item 1: CONDITION: I \$P(V,"/",1)>130!(\$P(V,"/",2)>80)

changed to I (V("SYSTOLIC")>130)!(V("DIASTOLIC")>80)

VA-BP >130/80 (ANY OF LAST 3)

Mapped item 1: CONDITION: I \$P(V,"/",1)>130!(\$P(V,"/",2)>80) changed to I
(V("SYSTOLIC")>130)!(V("DIASTOLIC")>80)

VA-BP >=140/90

Mapped item 1: CONDITION: I \$P(V,"/",1)>139!(\$P(V,"/",2)>89)

changed to I (V("SYSTOLIC")>139)!(V("DIASTOLIC")>89)

VA-BP >=160/100

Mapped item 1: CONDITION: I \$P(V,"/",1)>159!(\$P(V,"/",2)>99)

changed to I (V("SYSTOLIC")>159)!(V("DIASTOLIC")>99)

On the Nov 19, 2010 national reminder call, there was a discussion about frequency being required. If there is no resolution logic, then frequency is not required as long as AGE is not in the cohort logic (because age is associated with a frequency). When there was no frequency, the status was being returned

as CNBD even if there was no resolution logic and no age in the cohort logic. This was changed so that as long as there is no AGE in the cohort logic and no resolution logic, the status will be either DUE or N/A.

There were a couple of errors in the description of the **Usage field**.

Original Description:

The Usage field describes how the reminder definition will be used. This field must contain C if the reminder is to be selected in CPRS. The L or the O values will override all other values. For example, if L and C are defined in the usage field, the Reminder will not show on the cover sheet in CPRS, because L is in the Usage field.

This is free text field and can contain any combination of the following codes:

<u>Code</u>	<u>Usage</u>
C	CPRS
L	Reminder Patient List
O	Reminder Order Checks
P	Patient
R	Reminder Reports
X	Reminder Extracts
*	All of the above, except L, and O.

Corrected Description:

The Usage field describes how the reminder definition can be used. This field must contain C or * if the reminder is to be selected in CPRS. The L or the O values will override all other values. For example, if L and C are defined in the Usage field, the Reminder will not show on the cover sheet in CPRS, because L is in the Usage field.

This is free text field and can contain any combination of the following codes:

<u>Code</u>	<u>Usage</u>
C	CPRS
L	Reminder Patient List
O	Reminder Order Checks
P	Patient
R	Reminder Reports
X	Reminder Extracts
*	All of the above, except L, O, and P.

Changes to Reminder Definition in Patch 12

- **Reminder Component Inquiry**

The formatting for the various reminder component inquiries was made as consistent as possible and a computed finding inquiry was added.

- **Reminder Component Updates**

Two ICD 9 codes are added to the VA-DIABETES taxonomy.

- **Reminder Evaluation:**

- Pharmacy reengineering requires that direct reads of the various pharmacy files be replaced by APIs.
- Radiology patch RA*5.0*56 was released. This patch adds report status to the data returned by the radiology API Clinical Reminders uses, so the Clinical Maintenance output was changed so it now displays the report status. RA*5.0*56 was added as a required build.
- Finding date was added as a CSUB data for all reminder finding types.
- RANK_DATE was added as a new function that can be used in a Custom Date Due.

Steps to Define a Working Reminder

There are two parts to creating a working clinical reminder.

- *Reminder definition:* This describes the patients the reminder applies to, how often it is given, and what resolves or satisfies the reminder.
- *Process Issues:* The process issues include who will use the reminder and how the data will be captured. The process issues are extremely important; if they are not worked out, the reminder will never function as intended, even if the definition is correct.

These are the basic steps for defining a reminder. More detailed instructions for creating reminders and dialogs are provided in chapters that follow. As you become more experienced, you will probably develop your own process, but this provides a good starting place.

1. Write the reminder definition in a narrative form that clearly describes what you want the reminder to do. Use this narrative to identify patient data you need and how to capture it. Determine what characteristics the reminder will have (make a list). Which patients will the reminder be applicable for: age ranges, sex, diagnoses, etc. What satisfies the reminder and what makes it not applicable: diagnoses, lab results, x-rays, education, etc.

Reminders provide answers to the questions:

- WHO (findings and patient cohort logic)
 - WHAT resolves the reminder (findings and resolution logic)
 - WHEN (frequency)
 - WHERE this reminder will likely be resolved (location/provider)
2. Review existing reminders to see if there is an existing reminder that is close to what you need.
List Reminder Definitions, Reminder Definition Management Menu
Inquire about a Reminder Definition, Reminder Definition Management Menu
 3. Create new findings if they are required. For example, you may need exams or health factors.
Option: PCE Table Maintenance on Other Supporting Menus
 4. Copy the existing reminder and edit it to meet your needs, or define a new reminder.
Copy Reminder Definition or Add/Edit Reminder Definition,
 5. Test your reminder definition by evaluating the reminder for test patients. You should have patients who are in the cohort and who are not in the cohort. For patients who are in the cohort, you should have some who have the reminder resolved and some who do not.
Options: Test Reminder on the Reminder Management Menu, Health Summary Coordinator's Menu; Clinical Maintenance in CPRS;
 6. Create a reminder dialog (following instructions in the Reminder Dialog section of this manual), if desired, for resolving the reminder in CPRS.

7. Once you are certain the reminder works as intended, set it up in one or more of the following applications:
 - Add it to a health summary
 - Make it available to users through the CPRS GUI

NOTE: The procedure for making a health summary available in the CPRS GUI is found on page [252](#).

List Reminder Definitions

This option prints a summary of reminder definitions. You can limit the list by several criteria: all reminders, all national reminders, all local reminders, print name, or .01 name.

Example: List Reminder Definitions by National Reminders

NOTE: All the reminder definitions between the first one and Diabetic Eye Exam are deleted from this example, for brevity's sake.

```
RL      List Reminder Definitions
RI      Inquire about Reminder Definition
RE      Add/Edit Reminder Definition
RC      Copy Reminder Definition
RA      Activate/Inactivate Reminders
RH      Reminder Edit History
ICS     Integrity Check Selected
ICA     Integrity Check All
Select Reminder Definition Management Option: RL List Reminder Definitions
List all reminders? Y// NO
List all local reminders? Y// NO
List only reminders starting with (prefix)? VA-// <Enter>
List Active (A), Inactive (I), Both (B)? B//<Enter> oth
Sort list by Name (N), Print Name (P)? N//<Enter> ame (.01)

A reminder list will be created using the following criteria:
List all reminders? NO
List all local reminders? NO
List only reminders starting with (prefix)? VA-
List Active (A), Inactive (I), Both (B)? Both
Sort list by Name (N), Print Name (P)? Name (.01)

Is this correct? Y// <Enter>ES
DEVICE: <Enter> ANYWHERE      Right Margin: 80// <Enter>

REMINDER DEFINITION LIST                                FEB  8,2005  09:40      PAGE 1
-----

-----
Name:          VA-HEP C RISK ASSESSMENT
Print Name:    Hepatitis C Risk Assessment

Class:                                NATIONAL

Sponsor:

Review Date:

Usage:                                CPRS

Priority:

Reminder Description:
    Assess all patients for hepatitis C risk factors once. Patients with a
    previous laboratory test for hepatitis C or a previous diagnosis of
    hepatitis C do not require further risk assessment.
```

Findings:

Finding Item: VA-PREVIOUSLY ASSESSED HEP C R (FI(1)=RT(3))
Finding Item: VA-RISK FACTOR FOR HEPATITIS C (FI(2)=RT(4))
Finding Item: VA-NO RISK FACTORS FOR HEP C (FI(3)=RT(2))
Finding Item: VA-DECLINED HEP C RISK ASSESSM (FI(4)=RT(1))
Finding Item: VA-HEP C VIRUS ANTIBODY POSITI (FI(5)=RT(5))
Finding Item: VA-HEP C VIRUS ANTIBODY NEGATI (FI(6)=RT(6))
Finding Item: VA-HEPATITIS C INFECTION (FI(7)=RT(7))

Default PATIENT COHORT LOGIC to see if the Reminder applies to a patient:
(SEX)&(AGE)

Expanded Patient Cohort Logic:
(SEX)&(AGE)

Default RESOLUTION LOGIC defines findings that resolve the Reminder:
FI(1)!FI(2)!FI(3)!FI(4)!FI(5)!FI(6)!FI(7)

Expanded Resolution Logic:
FI(VA-PREVIOUSLY ASSESSED HEP C RISK)!
FI(VA-RISK FACTOR FOR HEPATITIS C)!FI(VA-NO RISK FACTORS FOR HEP C)!
FI(VA-DECLINED HEP C RISK ASSESSMENT)!
FI(VA-HEP C VIRUS ANTIBODY POSITIVE)!
FI(VA-HEP C VIRUS ANTIBODY NEGATIVE)!FI(VA-HEPATITIS C INFECTION)

Inquire About Reminder Item

You can select a specific reminder to see all the details.

Select Reminder Definition Management Option: **RI** Inquire about Reminder Definition
Select Reminder Definition: VA- IHD LIPID PROFILE
DEVICE: **<Enter>** ANYWHERE Right Margin: 80// **<Enter>**

REMINDER DEFINITION INQUIRY Feb 08, 2005 9:47:23 am Page 1

VA-IHD LIPID PROFILE No. 70

Print Name: IHD Lipid Profile

Class: NATIONAL

Sponsor: Office of Quality & Performance

Review Date:

Rescission Date:

Usage: CPRS, DATA EXTRACT, REPORTS

Related VA-* Reminder:

Reminder Dialog: VA-IHD LIPID PROFILE

Priority:

Reminder Description:

The VHA/DOD Clinical Practice Guideline for Management of Dyslipidemia recommends that patients with Ischemic Heart Disease have a lipid profile/LDL every one to two years; and that patients taking lipid lowering medications have a lipid profile/LDL at least every year.

This national reminder identifies patients with known IHD (i.e., a documented ICD-9 code for IHD on or after 10/01/99) who have not had a serum lipid panel within the last year. If a more recent record of an UNCONFIRMED IHD DIAGNOSIS is found, the reminder will not be applicable to the patient.

A completed LDL lab test (calculated LDL or direct LDL) or documented outside LDL satisfies the reminder for 12 months.

A documented order lipid profile health factor satisfies the reminder for 1 month.

A patient's refusal to have an LDL level drawn satisfies the reminder for 6 months.

Deferring the lipid profile for other reasons satisfies the reminder for 6 months.

Technical Description:

This reminder is recommended for use by clinicians at Primary Care Clinics (Primary Care/Medicine, GIMC, Geriatric, Women's), Cardiology, Cholesterol Screening and any other specialty clinics where primary care is given.

Setup issues before using this reminder:

1. Use the Reminder Term options to map local representations of findings:

IHD DIAGNOSIS

No mapping necessary. Use the VA-ISCHEMIC HEART DISEASE reminder taxonomy distributed with this term.

UNCONFIRMED IHD DIAGNOSIS

Use the UNCONFIRMED IHD DIAGNOSIS health factor distributed with this term or add any local health factor representing an unconfirmed or incorrect IHD diagnosis.

LDL

Enter the Laboratory Test names from the Lab Package for calculated LDL and direct LDL with "I +V>0" in the CONDITION field.

For the following OUTSIDE LDL Reminder Terms, use the health factors distributed with the reminder term or enter the local Health Factor used to represent these values.

OUTSIDE LDL <100

OUTSIDE LDL 100-119

OUTSIDE LDL 120-129

OUTSIDE LDL >129

ORDER LIPID PROFILE HEALTH FACTOR

Use the health factor distributed with this term or add any local health factor representing the order action. Do not add orderable items to this reminder term (see LIPID PROFILE ORDERABLE). This represents the date the order was placed, not the date the order will be done in the future. The order placement will cause the reminder to be resolved for 1 month. (Alternatively, copy this reminder and add LIPID PROFILE ORDERABLE to the resolution findings if you want the next due date to be calculated based on the future date the order is to be done.)

LIPID PROFILE ORDERABLE

Enter orderable items for lipid panels that include LDL tests (calculated LDL and direct LDL). The orderable items are informational findings for this reminder. The order will not resolve the reminder, but it will display in the clinical maintenance. Ideally, the clinician will look at the clinical maintenance display to avoid entering duplicate orders. This reminder term is not used in the resolution logic since the future order could be for a long distance in the future. (Copy this reminder and add LIPID PROFILE ORDERABLE to the resolution findings if you want the next due date to be calculated based on the future date the order is to be done.)

OTHER DEFER LIPID PROFILE

Enter any local health factors or other findings that should defer the reminder for 6 months. For example, "LIFE EXPECTANCY < 6M".

REFUSED LIPID PROFILE

Use the health factor distributed with this term or add

any local health factor representing refusal of lipid profile test.

LIPID LOWERING MEDS

Enter the formulary drug names for investigation drugs. Mapping non-investigative formulary drugs to the VA-GENERIC drugs will ensure the lipid lowering medications are found. The medications are informational findings for this reminder.

2. Use the Reminder Dialog edit option to define the national reminder dialog finding items which should be updated during CPRS GUI reminder processing.

Add local Order Dialog entries to the Dialog elements used for ordering a calculated LDL and/or direct LDL.

Review dialog elements in the national reminder dialog and change any national health factors to local health factors, if necessary. It is not unusual for local findings to be used in your national dialogs. Any local findings used in the national dialogs should be mapped to the appropriate national reminder term.

3. Alternatively, use the Reminder Dialog options to copy the national dialog, dialog elements, and dialog groups to make local changes.

If your site has a Lipid Panel TIU Object, add this TIU Object to the local dialog element header text. The TIU Object should include Chol, Trigly, HDL, LDL-C, Direct LDL values and dates.

Add local dialog elements with local Order Dialogs for additional ordering options for the clinicians. Some sites have clinicians order a consult to a service that corrects unconfirmed diagnoses the clinician finds in a patient's record. If your site has this method in place, copy the reminder dialog to a local reminder dialog and then add the local dialog element for the consult order to the reminder dialog so this practice can continue.

Baseline Frequency:

Do In Advance Time Frame: Wait until actually DUE
Sex Specific:
Ignore on N/A:
Frequency for Age Range: 1 year for all ages
Match Text:
No Match Text:

Findings:

```
---- Begin: VA-IHD DIAGNOSIS (FI(1)=RT(27)) -----  
      Finding Type: REMINDER TERM  
Use in Patient Cohort Logic: AND  
      Beginning Date/Time: OCT 01, 1999  
      Use Inactive Problems: N  
      Not Found Text: Patient has no IHD Diagnosis on file.  
  
      Mapped Findings:  
      Mapped Finding Item: TX.VA-ISCHEMIC HEART DISEASE  
      Use Inactive Problems: NO  
  
---- End: VA-IHD DIAGNOSIS -----
```

```

----- Begin: VA-LDL (FI(2)=RT(32)) -----
      Finding Type: REMINDER TERM
      Use in Resolution Logic: OR
      Condition: I +V>0
      Not Found Text: Patient with IHD and no LDL lab results on
                      file in the past year.
      RT Mapped Finding: No Reminder Finding Found
----- End: VA-LDL -----

----- Begin: VA-OUTSIDE LDL <100 (FI(3)=RT(35)) -----
      Finding Type: REMINDER TERM
      Use in Resolution Logic: OR
      Beginning Date/Time: T-1Y

      Mapped Findings:
      Mapped Finding Item: HF.OUTSIDE LDL <100
      Health Factor Category: OUTSIDE LDL
----- End: VA-OUTSIDE LDL <100 -----

----- Begin: VA-OUTSIDE LDL 100-119 (FI(4)=RT(34)) -----
      Finding Type: REMINDER TERM
      Use in Resolution Logic: OR
      Beginning Date/Time: T-1Y

      Mapped Findings:
      Mapped Finding Item: HF.OUTSIDE LDL 100-119
      Health Factor Category: OUTSIDE LDL
----- End: VA-OUTSIDE LDL 100-119 -----

----- Begin: VA-OUTSIDE LDL 120-129 (FI(5)=RT(52)) -----
      Finding Type: REMINDER TERM
      Use in Resolution Logic: OR
      Beginning Date/Time: T-1Y

      Mapped Findings:
      Mapped Finding Item: HF.OUTSIDE LDL 120-129
      Health Factor Category: OUTSIDE LDL
----- End: VA-OUTSIDE LDL 120-129 -----

----- Begin: VA-OUTSIDE LDL >129 (FI(6)=RT(36)) -----
      Finding Type: REMINDER TERM
      Use in Resolution Logic: OR
      Beginning Date/Time: T-1Y

      Mapped Findings:
      Mapped Finding Item: HF.OUTSIDE LDL >129
      Health Factor Category: OUTSIDE LDL
----- End: VA-OUTSIDE LDL >129 -----

----- Begin: VA-ORDER LIPID PROFILE HEALTH FACTOR (FI(7)=RT(61)) -----
      Finding Type: REMINDER TERM
      Use in Resolution Logic: OR

```

```

Beginning Date/Time: T-1M

Mapped Findings:
Mapped Finding Item: HF.ORDER LIPID PROFILE
Health Factor Category: LIPID MED INTERVENTIONS

---- End: VA-ORDER LIPID PROFILE HEALTH FACTOR -----

---- Begin: VA-REFUSED LIPID PROFILE (FI(8)=RT(40)) -----
Finding Type: REMINDER TERM
Use in Resolution Logic: OR
Beginning Date/Time: T-6M

Mapped Findings:
Mapped Finding Item: HF.REFUSED LIPID PROFILE
Health Factor Category: LIPID PROFILE INTERVENTIONS

---- End: VA-REFUSED LIPID PROFILE -----

---- Begin: VA-OTHER DEFER LIPID PROFILE (FI(9)=RT(41)) -----
Finding Type: REMINDER TERM
Use in Resolution Logic: OR
Beginning Date/Time: T-6M
Found Text: The lipid profile is deferred for 6 months.

Mapped Findings:
Mapped Finding Item: HF.OTHER DEFER LIPID PROFILE
Health Factor Category: LIPID PROFILE INTERVENTIONS

---- End: VA-OTHER DEFER LIPID PROFILE -----

---- Begin: VA-UNCONFIRMED IHD DIAGNOSIS (FI(10)=RT(42)) -----
Finding Type: REMINDER TERM
Use in Patient Cohort Logic: AND NOT

Mapped Findings:
Mapped Finding Item: HF.UNCONFIRMED IHD DIAGNOSIS
Health Factor Category: UNCONFIRMED DIAGNOSIS

---- End: VA-UNCONFIRMED IHD DIAGNOSIS -----

---- Begin: VA-LIPID LOWERING MEDS (FI(12)=RT(54)) -----
Finding Type: REMINDER TERM
Beginning Date/Time: T-90D
Not Found Text: No active lipid lowering agents on file.

Mapped Findings:
Mapped Finding Item: DG.CERIVASTATIN
Beginning Date/Time: NOW
RX Type: A

Mapped Finding Item: DG.FLUVASTATIN
Beginning Date/Time: NOW
RX Type: A

Mapped Finding Item: DG.ATORVASTATIN
Beginning Date/Time: NOW
RX Type: A

```

```

Mapped Finding Item: DG.LOVASTATIN
Beginning Date/Time: NOW
      RX Type: A

Mapped Finding Item: DG.PRAVASTATIN
Beginning Date/Time: NOW
      RX Type: A

Mapped Finding Item: DG.SIMVASTATIN
Beginning Date/Time: NOW
      RX Type: A

Mapped Finding Item: DG.COLESTIPOL
Beginning Date/Time: NOW
      RX Type: A

Mapped Finding Item: DG.CHOLESTYRAMINE
Beginning Date/Time: NOW
      RX Type: A

Mapped Finding Item: DG.COLESEVELAM
Beginning Date/Time: NOW
      RX Type: A

Mapped Finding Item: DG.FENOFIBRATE
Beginning Date/Time: NOW
      RX Type: A

Mapped Finding Item: DG.GEMFIBROZIL
Beginning Date/Time: NOW
      RX Type: A

Mapped Finding Item: DG.CLOFIBRATE
Beginning Date/Time: NOW
      RX Type: A

Mapped Finding Item: DG.NIACIN
Beginning Date/Time: NOW
      RX Type: A

```

```

---- End: VA-LIPID LOWERING MEDS -----

```

```

---- Begin: VA-LIPID PROFILE ORDERABLE  (FI(14)=RT(39)) -----
      Finding Type: REMINDER TERM
      RT Mapped Finding: No Reminder Finding Found
---- End: VA-LIPID PROFILE ORDERABLE -----

```

Function Findings:

```

---- Begin: FF(1)-----
      Function String: MRD(1)>MRD(10)
      Expanded Function String:
      MRD(VA-IHD DIAGNOSIS)>MRD(VA-UNCONFIRMED IHD DIAGNOSIS)
---- End: FF(1) -----

```

Customized PATIENT COHORT LOGIC to see if the Reminder applies to a patient:
 FI(1)&FF(1)

Expanded Patient Cohort Logic:

FI(VA-IHD DIAGNOSIS)&FF(1)

Default RESOLUTION LOGIC defines findings that resolve the Reminder:

FI(2)!FI(3)!FI(4)!FI(5)!FI(6)!FI(7)!FI(8)!FI(9)

Expanded Resolution Logic:

FI(VA-LDL)!FI(VA-OUTSIDE LDL <100)!FI(VA-OUTSIDE LDL 100-119)!

FI(VA-OUTSIDE LDL 120-129)!FI(VA-OUTSIDE LDL >129)!

FI(VA-ORDER LIPID PROFILE HEALTH FACTOR)!FI(VA-REFUSED LIPID PROFILE)!

FI(VA-OTHER DEFER LIPID PROFILE)

Web Sites:

Web Site URL:

http://www.oqp.med.va.gov/cpg/DL/dl_cpg/algo4frameset.htm

Web Site Title: VHA/DoD CPG for Dyslipidemia

The VHA/DoD CPG for Management of Dyslipidemia is a comprehensive guideline incorporating current information and practices for practitioners throughout the DoD and Veterans Health Administration system. See Section S, Table 3b for reference to LDL<120 in the Guideline.

Add/Edit Reminder Definition

You can define a reminder through this option or through the Copy Reminder Definition. To edit existing reminders, a sub-menu is displayed that allows selection of specific fields in the reminder definition for edit.

```
Select Reminder Definition Management Option: Add/Edit Reminder Definition
Select Reminder Definition:  JG DIABETIC EYE EXAM      LOCAL
```

Select one of the following:

A	All reminder details
G	General
B	Baseline Frequency
F	Findings
FF	Function Findings
L	Logic
C	Custom date due
D	Reminder Dialog
W	Web Addresses

Select section to edit: a All reminder details

NAME: JG DIABETIC EYE EXAM Replace

PRINT NAME: Diabetic Eye Exam//

CLASS: LOCAL//

SPONSOR:

REVIEW DATE: MAY 3,2000//

USAGE: C//

RELATED REMINDER GUIDELINE:

INACTIVE FLAG:

RESCISSION DATE:

REMINDER DESCRIPTION:

Patients with the VA-DIABETES taxonomy should have a diabetic eye exam done yearly.

Edit? NO//

TECHNICAL DESCRIPTION:

This reminder is based on the Diabetic Eye Exam reminder from the New York VAMC which was designed to meet the guidelines defined by the PACT panel. Additional input came from the Saginaw VAMC.

Edit? NO//

PRIORITY:

Baseline Frequency

DO IN ADVANCE TIME FRAME: 1M//

SEX SPECIFIC:

IGNORE ON N/A:

Baseline frequency age range set

Select REMINDER FREQUENCY: 0Y//

REMINDER FREQUENCY: 0Y//

MINIMUM AGE:

MAXIMUM AGE:

```

AGE MATCH TEXT:
  No existing text
  Edit? NO//
AGE NO MATCH TEXT:
  No existing text
  Edit? NO//
Select REMINDER FREQUENCY:

Reminder Definition Findings

Choose from:
EX      DIABETIC EYE EXAM
TX      VA-DIABETES

Select FINDING: ex.DIAB

      Searching for a EXAM, (pointed-to by FINDING ITEM)
      DIABETIC EYE EXAM
      ...OK? Yes//      (Yes)
FINDING ITEM: DIABETIC EYE EXAM//
MINIMUM AGE:
MAXIMUM AGE:
REMINDER FREQUENCY:
RANK FREQUENCY:
USE IN RESOLUTION LOGIC: OR//
USE IN PATIENT COHORT LOGIC:
BEGINNING DATE/TIME:
ENDING DATE/TIME:
OCCURRENCE COUNT:
CONDITION:

Function Findings
Select FUNCTION FINDING: ?
      You may enter a new FUNCTION FINDINGS, if you wish
      Enter the number of the function finding you are defining

Select FUNCTION FINDING:

Patient Cohort and Resolution Logic
CUSTOMIZED PATIENT COHORT LOGIC (OPTIONAL):
GENERAL PATIENT COHORT FOUND TEXT:
  No existing text
  Edit? NO//
GENERAL PATIENT COHORT NOT FOUND TEXT:
  No existing text
  Edit? NO//
CUSTOMIZED RESOLUTION LOGIC (OPTIONAL):
GENERAL RESOLUTION FOUND TEXT:
  No existing text
  Edit? NO//
GENERAL RESOLUTION NOT FOUND TEXT:
  No existing text
  Edit? NO//

Reminder Dialog
LINKED REMINDER DIALOG: JG DIABETIC EYE EXAM//

Web Addresses for Reminder Information
Select URL:

      Select one of the following:

      A      All reminder details

```


G	General
B	Baseline Frequency
F	Findings
FF	Function Findings
L	Logic
C	Custom date due
D	Reminder Dialog
W	Web Addresses

Select section to edit:
 Input your edit comments.
 Edit? NO//

Editing part of the reminder definition

This is an example of editing Logic.

```
Select Reminder Definition Management Option: RE Add/Edit Reminder Definition
Select Reminder Definition: JG-DIABETIC EYE EXAM
  Select one of the following:
    A      All reminder details
    G      General
    B      Baseline Frequency
    F      Findings
    FF     Function Findings
    L      Logic
    C      Custom date due
    D      Reminder Dialog
    W      Web Addresses
Select section to edit: Logic

Patient Cohort and Resolution Logic
CUSTOMIZED PATIENT COHORT LOGIC (OPTIONAL): (SEX) & (AGE) & FI (SLC DIABETES)
GENERAL PATIENT COHORT FOUND TEXT:
  1> <Enter>
GENERAL PATIENT COHORT NOT FOUND TEXT:
  1><Enter>
CUSTOMIZED RESOLUTION LOGIC (OPTIONAL): FI (DIABETIC EYE EXAM)
GENERAL RESOLUTION FOUND TEXT:
  1><Enter>
GENERAL RESOLUTION NOT FOUND TEXT:
  1><Enter>
```

Copy Reminder Definition

This option allows you to copy an existing reminder definition into a new reminder definition.

```
Select Reminder Definition Management Option: copy Reminder Definition

Select the reminder item to copy:      VA-WH PAP SMEAR SCREENING      NATIONAL
PLEASE ENTER A UNIQUE NAME: JG-WH PAP SMEAR SCREENING

The original reminder VA-WH PAP SMEAR SCREENING has been copied into JG-WH PAP SMEAR
SCREENING.
Do you want to edit it now? YES

    Select one of the following:

        A      All reminder details
        G      General
        B      Baseline Frequency
        F      Findings
        FF     Function Findings
        L      Logic
        C      Custom date due
        D      Reminder Dialog
        W      Web Addresses

Select section to edit: General

PRINT NAME: VA-PAP Smear Screening  Replace VA With LOCAL
  Replace
  LOCAL-PAP Smear Screening

CLASS: LOCAL//
SPONSOR:
REVIEW DATE:
USAGE: CR//

RELATED REMINDER GUIDELINE:

INACTIVE FLAG:

REMINDER DESCRIPTION:. . .
    . . .
    * PCE CPT procedure code
    * Completed consult order for outside procedure

The following will resolve this reminder for one week:
    * PAP smear obtained at this encounter
    * Patient declined PAP smear
    * PAP smear deferred
    * Health Factor documenting an order related to PAP Smear
      screening was placed

Edit? NO//

TECHNICAL DESCRIPTION:. . .
    . . .
    ordering options for the clinicians. Some sites have clinicians order
    a consult to a service that provides PAP smears.  If your site does
```

this, copy the reminder dialog to a local reminder dialog, then add the local dialog element for the consult order to the reminder dialog so this practice can continue.

4. If your site chooses not to send letters via the WH package, copy the appropriate national dialog components to local components and remove the findings related to WH notifications.

Edit? NO//

PRIORITY:

Select one of the following:

A	All reminder details
G	General
B	Baseline Frequency
F	Findings
FF	Function Findings
L	Logic
C	Custom date due
D	Reminder Dialog
W	Web Addresses

Select section to edit:

Reminder Edit History

You can display a reminder definition's edit history with this option.

```
Select Reminder Definition Management Option: RH  Reminder Edit History
Maximum number of occurrences to display :  (2-99): 3//
```

```
Select Reminder Definition:      TEST      LOCAL
```

```
Edit History for reminder AGP TEST:
```

```
    Edit date: May 12, 2010@08:30:49      Edit by: CRUSER,TWO
    Edit Comments: Exchange Install
```

```
Select Reminder Definition: VA-TERATOGENIC MEDICATIONS ORDER CHECK
NATIONAL
```

```
Edit History for reminder VA-TERATOGENIC MEDICATIONS ORDER CHECK:
```

```
    Edit date: Oct 27, 2011@22:05:53      Edit by: CRDEVELOPER,TWO
    Edit Comments: Exchange Install
```

```
Select Reminder Definition:
```

Integrity Check Options

Two new options were added to the reminder definition management menu: Integrity Check Selected and Integrity Check All. These can be used to check the integrity of selected or all reminder definitions. The integrity check will also be made automatically whenever a reminder definition has been edited. Fatal errors (F) that will prevent the reminder from working properly and warnings (W) will be given.

The following checks are made:

F – Each finding is checked to make sure it exists

F – If either the Beginning Date/Time or Ending Date/Time contains FIEVAL(M,"DATE") or FIEVAL(M,N,"DATE"), the definition is checked to make sure it contains finding M, and if an occurrence is used, the Occurrence Count of finding M is checked to make sure it is greater than or equal to N.

F- Function findings functions of the form FUNCTION(M) and FUNCTION(M,N) are checked to make sure finding M is in the definition and the Occurrence Count of finding M is greater than or equal to N.

F – If a Custom Date Due is defined, it is checked to make sure that the findings used in the Custom Date Due all exist in the definition.

F – Patient Cohort Logic and Resolution Logic are checked to make sure that the findings used in the logic all exist in the definition.

F – Logic strings are checked to make sure their syntax is valid.

F – The definition contains Resolution Logic but does not have a baseline frequency or any findings that will set a frequency.

W – The Usage field contains a "P" and it is not a national reminder

W – The definition contains Resolution Logic but does not have a baseline frequency. It does have findings that will set a frequency. This could be a problem if all findings that set frequency are false.

Integrity Check Selected

This option lets the user select a reminder definition for integrity checking.

```
Select Reminder Definition Management Option: ICS  Integrity Check Selected

Select Reminder Definition:      VA-TERATOGENIC MEDICATIONS ORDER CHECK
NATIONAL

Warning, there is no Resolution logic.
No fatal errors were found.
```

Integrity Check All

This option runs the integrity check for all reminder definitions on the system.

```
Select Reminder Definition Management Option: ica Integrity Check All

Check the integrity of all reminder definitions.
DEVICE: HOME// HOME

Checking 01-DIAB PTS (5Y) W/O DIAB EXAM (1Y) (IEN=256)
Warning, there is no Resolution logic.
No fatal errors were found.

Checking 37-PC-PTSD SCREENING (IEN=331)
No fatal errors were found.

Checking 691 PNT EYE CLINIC (IEN=262)
Warning, there is no Resolution logic.
No fatal errors were found.

Checking AAA SCREENING (IEN=360)
No fatal errors were found.

Checking AGETEST (IEN=660004)
No fatal errors were found.

Checking AGP ABNORMAL WH STUFF (IEN=170)
Finding number 10 uses computed finding VA-PROGRESS NOTE. This computed
finding
will not work properly unless the Computed Finding Parameter is defined and
in this case it is not.
Finding number 13 uses computed finding VA-ACTIVE PATIENT RECORD FLAGS. This
computed finding will not work properly unless the Computed Finding Parameter
is defined and in this case it is not.

Checking AGP APPOINTMENT (IEN=419)
Finding number 1 uses computed finding VA-APPOINTMENTS FOR A PATIENT. This
computed finding will not work properly unless the Computed Finding Parameter
is defined and in this case it is not.

Etc.
```

Reminder Definition Fields

Name	Description
NAME	This field is the name of a clinical reminder definition. Nationally distributed reminder definition names are prefixed with "VA-". The VA-prefixed reminder definitions cannot be altered by a site, but may be inactivated so they will not be selectable.
PRINT NAME	This is the name that is used when the results of a reminder evaluation are displayed.
CLASS	This is the class of definition. National definitions cannot be edited or created by sites. N NATIONAL V VISN L LOCAL
SPONSOR	This is the name of a group or organization that sponsors the reminder.
REVIEW DATE	The review date is used to determine when the definition should be reviewed to verify that it is current with the latest standards and guidelines.
USAGE	This field allows the reminder creator to specify how the reminder can be used. This is a free text field that can contain any combination of the following characters: C - CPRS (the reminder can be used in the CPRS GUI) L – Reminder Patient List O – Reminder Order Checks P – Patient; patients can view “My Health” reminders; the wildcard (*) excludes P R - Reminder Reports (the reminder can be used in reminder reports) X - Reminder Extracts (the reminder is used for data extraction) * - All of the above, except L, O, and P This field must contain C or * if the reminder is to be selected in CPRS. The L or the O values will override all other values. NOTE: To enter more than one code, type the codes with no spaces or punctuation between them.
INACTIVE FLAG	Reminders that are inactive will not be evaluated. The Clinical Maintenance component will return a message stating the reminder is inactive and the date when it was made inactive. Other applications that use reminders may use this flag to determine if a reminder can be selected for inclusion.
REMINDER DESCRIPTION	This is a description of the clinical purpose of the reminder.
TECHNICAL DESCRIPTION	This is a description of how the reminder works.
PRIORITY	The reminder priority is used by the CPRS GUI for sorting purposes.
DO IN ADVANCE TIME FRAME	This field is used to let a reminder become due earlier than the date determined by adding the frequency to the date when the reminder was last resolved. For example, if the frequency is 1Y (one year) and the DO IN ADVANCE TIME FRAME is 1M (one month) the reminder would have a status of "DUE SOON" 11 months after it was last resolved. After one year has passed the STATUS would be "DUE."
SEX SPECIFIC	This field is used to make a reminder sex-specific. If an "F" is entered, the reminder applies only to females. If an "M" is entered, the reminder applies only to males. If it is left blank, then the reminder is applicable to either sex.

IGNORE ON N/A	<p>This field allows the user to stop reminders from being printed in the Clinical Maintenance component if the reminder is N/A. This is a free- text field that can contain any combination of the following codes:</p> <p>Code Description</p> <p>A N/A due to not meeting age criteria.</p> <p>I N/A due to inactive reminder.</p> <p>R N/A due to the wrong race.</p> <p>S N/A due to the wrong sex.</p> <p>* N/A for any reason.</p>
FREQUENCY AGE RANGE SET	<p>The Frequency Age Range set is a multiple that allows you to define different frequencies for different non-overlapping age ranges. The fields in this multiple are:</p> <p>REMINDER FREQUENCY:</p> <p>This is the frequency to give the reminder. It is input as nD, nM, or nY, where D stands for days, M for months, Y for years, and n is a number. Thus, for a reminder that is to be given once a year, the values 365D, 12M, or 1Y would all work. If a reminder is only to be given once in a lifetime, use a frequency of 99Y.</p> <p>MINIMUM AGE:</p> <p>This field specifies the minimum age for defining an age range associated with a frequency. Leave it blank if there is no minimum age.</p> <p>MAXIMUM AGE:</p> <p>This field specifies the maximum age for defining an age range associated with a frequency. Leave it blank if there is no maximum age.</p> <p>AGE MATCH TEXT:</p> <p>This text will be displayed in the Clinical Maintenance component if the patient's age falls in the age range.</p> <p>AGE NO MATCH TEXT:</p> <p>This text will be displayed in the Clinical Maintenance component if the patient's age does not fall in the age range.</p>
FINDING	The Findings multiple is documented later in this chapter, page 97 .
FUNCTION FINDINGS	<p>Function Findings are new in version 2.0. They are called Function Findings because they do a computation on the results from regular findings. Function Findings can be used in both patient cohort logic and resolution logic.</p> <p>The general form of the function string is:</p> <p>FUNCTION(finding list) operator FUNCTION(finding list)</p> <p>where FUNCTION is one of the available functions and finding list is a comma-separated list of regular finding numbers. See page 103.</p>
CUSTOMIZED PATIENT COHORT LOGIC	<p>This field may be used to define a customized Boolean logic string that defines how and what findings in a reminder are used to determine if the reminder applies to the patient. The customized logic is used when the USE IN PATIENT COHORT LOGIC fields associated with each finding do not provide the ability to create the required logic string. (e.g., grouping various findings within parenthesis)</p> <p>Tip: Before defining the Boolean string, review the default logic defined in the DEFAULT PATIENT COHORT LOGIC field using the reminder inquiry option.</p>
GENERAL PATIENT COHORT FOUND TEXT	This text is displayed in the Clinical Maintenance component if the patient is in the cohort and the reminder is applicable.
GENERAL PATIENT COHORT NOT FOUND TEXT	This text will be displayed in the Clinical Maintenance component if the patient is not in the cohort and the reminder is not applicable.

CUSTOMIZED RESOLUTION LOGIC	This field may be used to define a customized Boolean logic string that defines how and what reminder findings are used to determine if the reminder has been resolved. The customized logic is used when the USE IN RESOLUTION LOGIC fields associated with each finding do not provide the ability to create the required logic string. (e.g., grouping various findings within parenthesis). Tip: Before defining the Boolean string, review the default logic defined in the DEFAULT RESOLUTION LOGIC field using the reminder inquiry option.
GENERAL RESOLUTION FOUND TEXT	This text will be displayed in the Clinical Maintenance component if the reminder has been resolved.
GENERAL RESOLUTION NOT FOUND TEXT	This text will be displayed in the Clinical Maintenance component if the reminder has not been resolved.
CUSTOM DATE DUE	When a CUSTOM DATE DUE is defined, it takes precedence over the standard date due calculation. This means the normal date due calculation that is based on the dates of the resolution findings and the final frequency is not done. Only the dates of the findings and the frequencies specified in the Custom Date Due string are used. Any finding that is in the reminder definition can be used in the Custom Date Due string; it is not limited to those defined as resolution findings. The final age range will still be used to determine if the patient is in the cohort; however, the frequency associated with this age range is not used. Only the frequencies specified in the Custom Date Due String are used. They are added to the date of the associated finding to determine the dates used by either the MIN_DATE or MAX_DATE functions.
LINKED REMINDER DIALOG	This is the Reminder Dialog that will be used when the reminder is processed in the CPRS GUI.
WEB SITES	This multiple contains Web site(s) for information related to this reminder. When processing a reminder in the CPRS GUI you will be able to launch a browser and visit the Web site.
Select URL	This is the URL for the web site.
WEB SITE TITLE	This is the web site title that is used by the CPRS GUI. It will appear after a right-click, allowing you to select the web site.
WEB SITE DESCRIPTION	This field contains a description of the Web site.

Reminder Findings

Findings are types of data elements in VistA that determine a reminder's status. Each finding is evaluated when a reminder is evaluated for a patient. Findings are either True (1) or False (0)

Findings have three functions in reminder definitions:

- To select the applicable patient population (Patient Cohort Logic)
- To resolve the reminder (Resolution Logic)
- To provide information

Findings Types

Finding Type	Source File Number	Abbreviation
Drug	50	DR
Education Topic	9999999.09	ED
Exam	9999999.15	EX
Health Factor	9999999.64	HF
Immunization	9999999.14	IM
Laboratory Test	60	LT
MH Tests and Surveys	601.71	MH
Orderable Item	101.43	OI
Radiology Procedure	71	RP
Reminder Computed Finding	811.4	CF
Reminder Taxonomy	811.2	TX
Reminder Term	811.5	RT
Skin Test	9999999.28	ST
VA Drug Class	50.605	DC
VA Generic	50.6	DG
Vital Measurement	120.51	VM
Reminder Location List	810.9	RL

TIP: When editing findings in a reminder definition or term, you can save time by giving an exact specification of the name of the finding by using the abbreviation. This tells FileMan exactly where to find it and avoids long searches.

Example

For finding: VA-DIABETES taxonomy
Enter: TX.VA-DIABETES

Hint: To add a second occurrence of a finding, enclose it in quotes, i.e., "Prefix.Name"

Drug – Drugs are found in the DRUG file #50. Results for individual patients can be found in the Pharmacy Patient file #55 (inpatient), the Prescription file #52 (outpatient), or for non-VA Meds which are stored in the Pharmacy Patient file. The parameter RXTYPE can be used to control which files are searched for patient results; see the description of RXTYPE below.

Each type of drug has an associated start date and stop date. For inpatient drugs, these are the START DATE and the STOP DATE. For outpatient drugs, the start date is the RELEASE DATE and the stop date is the RELEASE DATE + DAYS SUPPLY. For non-VA Meds, the start date is the START DATE

or, if there is no START DATE, it is the DOCUMENTED DATE and the stop date is the DISCONTINUED DATE if it exists; otherwise it is today's date.

Education Topic – Education topics are found in the EDUCATION TOPICS file #9999999.09. Results for individual patients are found in the V PATIENT ED file #9000010.16. The default value used for the CONDITION is LEVEL OF UNDERSTANDING. Possible values are:

- '1' FOR POOR;
- '2' FOR FAIR;
- '3' FOR GOOD;
- '4' FOR GROUP-NO ASSESSMENT;
- '5' FOR REFUSED

If you want to allow only those educations where the LEVEL OF UNDERSTANDING is GOOD to be true, the CONDITION field would be I V=3.

Exam – Exams are found in the EXAM file #9999999.15. Results for individual patients are found in the V EXAM file #9000010.13. The default value used for the CONDITION is the RESULT. Possible values are:

- 'A' FOR ABNORMAL
- 'N' FOR NORMAL

If you want only those exams where the RESULT is NORMAL to be true, the CONDITION field would be I V="N".

Health Factor – Health factors are found in the HEALTH FACTOR file #9999999.64. Results for individual patients are found in the V HEALTH FACTOR file #9000010.23. The default value used for the CONDITION is LEVEL/SEVERITY. Possible values are:

- 'M' FOR MINIMAL
- 'MO' FOR MODERATE
- 'H' FOR HEAVY/SEVERE

If you want only those health factors whose LEVEL/SEVERITY is HEAVY/SEVERE to be true, then the CONDITION field would be I V="H".

Health Factors have a field called ENTRY TYPE. There are two possible values for this field: category and factor. Each factor health factor must belong to a category. Categories provide a way to group health factors. Typical examples of categories are alcohol use, breast cancer, and tobacco. When reminders are evaluated, if there is more than one health factor from a category in the definition, only the most recent health factor in the category can be true. This feature can be used to make a reminder applicable or not applicable for a patient.

Example:

A reminder for smoking cessation education provides a good example. A health factor of current smoker is used in the PATIENT COHORT LOGIC with the AND Boolean operator. A second health factor of non-smoker is included as an information finding. A patient comes in and is a current smoker so they are given the current smoker health factor; this makes the reminder applicable. The patient has the smoking cessation education; six months later he or she has quit, so is given the non-smoker health factor. Since non-smoker is more recent than current smoker, the reminder is not applicable. Another six months passes and the patient is smoking again, so he is given the current smoker health factor, which makes the

reminder applicable again. All the health factors are still in the patient's record, so you can see the progression of their smoker non-smoker status.

When health factors are mapped to a Term, the categorization is done only for the health factors in the Term. The Term factors are not combined with health factors in the definition for the categorization.

The field WITHIN CATEGORY RANK will let you change this categorization behavior. See that section, page [99](#), for a description of how to use it.

Only those Health Factors with an ENTRY TYPE of factor can be used in reminder definitions. However, when you create a packed reminder definition using the reminder Exchange Utility, each factor health factor and its category health factor are included. This is done so that a receiving site can install the factor health factors used in the reminder definition. Factor health factors cannot be installed if their category health factor does not already exist. Category health factors should be installed before factor health factors.

Immunization – Immunizations are found in the IMMUNIZATION file #9999999.14. Results for individual patients are found in the V IMMUNIZATION file #9000010.11. The default value used for the CONDITION is the SERIES. Possible values are:

- 'P' FOR PARTIALLY COMPLETE
- 'C' FOR COMPLETE
- 'B' FOR BOOSTER
- '1' FOR SERIES 1
- '2' FOR SERIES 2
- '3' FOR SERIES 3
- '4' FOR SERIES 4
- '5' FOR SERIES 5
- '6' FOR SERIES 6
- '7' FOR SERIES 7
- '8' FOR SERIES 8

Laboratory Test – Laboratory tests are found in the LABORATORY TEST file #60. Only individual tests may be selected as a reminder finding; lab panels cannot be used. Test results are found in the LAB DATA file #63. The default value for the CONDITION is the result of the lab test. The type of result, text or numerical, the normal range of values, and the units will be a function of the particular test, so you should be aware of what they are before you set up a Condition.

Orderable Item –Orderable Items are found in the ORDERABLE ITEMS file #101.43. Results for a patient are found in the ORDER file #100. An order has an associated START DATE and in most – but not all – cases, an associated STOP DATE. If the STOP DATE does not exist, then today's date is used as the STOP DATE. STOP DATE is used as the date of an orderable item finding. You can use a STATUS LIST for orderable item findings. If no STATUS LIST is defined then only orders with a status of active or pending can be true. The default value for the CONDITION is the order status.

Possible order statuses are found in the ORDER STATUS file #100.01:

DISCONTINUED	COMPLETE	HOLD
FLAGGED	PENDING	ACTIVE
EXPIRED	SCHEDULED	PARTIAL RESULTS
DELAYED	UNRELEASED	RENEWED
DISCONTINUED/EDIT	CANCELLED	LAPSED
NO STATUS		

In Clinical Reminders V.1.5, an OE/RR API was used to obtain order information and it always returned the order status in lower-case. Clinical Reminders V.2.0 uses the Clinical Reminders Index to determine if a patient has a particular orderable item and a new API to obtain the actual order data. This new API returns the order status in all upper-case.

MH Tests and Surveys – This file defines the interviews, surveys and tests available in the Mental Health Assistant. Attributes of the instruments include authoring credits, target populations, normative samples and copyright information. Actions available including privileging, reporting of full item content and transmission to the Mental Health National Database are also specified.

Entries may be made through the provided Mental Health Authoring software.
Direct entry through Fileman or the programmer prompt is prohibited.

Mental Health Instruments are found in the MENTAL HEALTH INSTRUMENT file #601. Results for a patient are found in the PSYCH INSTRUMENT PATIENT file #601.2. The default value for the CONDITION is the result returned by the Mental Health test. The normal range of values and the units will be a function of the particular test. When the user enters answers to a mental health test, the answers are automatically passed to the Mental Health package to calculate a result, which may be referenced as SCORE. For example, CAGE test has a SCORE from 1-4 and GAF has a SCORE from 1-99.

For most Mental Health tests, progress note text can be automatically generated that summarizes or includes the results (SCORE). Default text is distributed in the REMINDER DIALOG file # 801.41 for sites to use for each Mental Health test processed in the reminder resolution process.

Because different Mental Health Score could have possible results, reminder dialogs use Result Group for the score evaluation. A result group can contain multiple result elements. Based on the Mental Health test score, the correct Result element Text is displayed in the progress note. To modify the default text, sites would need to copy both the Result Element and the Result group. The progress note text is contained in the result element. The modified result element must be added to the local result group alone, with any other result element to be evaluated against when the Mental Health test is processed in the Reminder Dialog. Once the result group is completed, it must be added to the Dialog element that contains the Mental Health dialog. Sites would add the new Result group to this field: RESULT GROUP/ELEMENT.

Reminder Computed Findings – Reminder Computed Findings are found in the COMPUTED FINDINGS file #811.4. Computed findings provide the ability to create custom findings for situations when none of the standard findings will work.
See the chapter on Computed Findings, page [18](#), for more details.

Reminder Taxonomy – Reminder taxonomies are found in the REMINDER TAXONOMY file #811.2. Reminder taxonomies provide a convenient way to group coded values and give them a name. For example, the VA-DIABETES taxonomy contains a list of diabetes diagnoses.

A taxonomy can contain ICD0, ICD9, and CPT codes. The codes are entered as a low value and a high value. These pairs are automatically expanded into a set that contains the low value, the high value, and every code in between. Clinical Reminders searches in a number of places for code matches. For ICD9 codes, it looks in V POV, Problem List, and PTF. For CPT codes, it looks in V CPT and Radiology. For ICD0 codes, it looks in PTF.

There are two dates associated with ICD9 diagnoses found in Problem List, the date entered and the date last modified. The PRIORITY field is used to determine if a problem is chronic or acute. If the problem is

chronic, Clinical Reminders will use today's date in its date calculations; otherwise it will use the date last modified. The default is to only use active problems unless the field USE INACTIVE PROBLEMS is yes or the STATUS LIST contains the status of inactive.

The following are fields that can be specified for each taxonomy finding:

USE INACTIVE PROBLEMS – Normally, Problem List problems that are marked as inactive are ignored during the reminder evaluation. If you want them to be used, give this field a value of "YES."

PATIENT DATA SOURCE specifies where to search for patient data. It is a string of comma-separated key words. The keywords and their meanings are:

KEYWORD	MEANING
IN	Search in the inpatient data file PTF
INDXLS	Search in PTF for DXLS only
INPR	Search in PTF for principal diagnosis only
EN	Search encounter (PCE) data
ENPR	Search PCE data for primary diagnosis only
PL	Search for Problem List diagnosis only
RA	Search in Radiology for radiology CPT codes.

You may use any combination of these keywords. An example is EN,RA. This would cause the search to be made in V CPT and Radiology for CPT codes. If PATIENT DATA SOURCE is left blank, the search is made in all the possible sources.

See the chapter that describes Reminder Taxonomy options on page [124](#).

Reminder Term – Reminder Terms are found in file #811.5. Reminder Terms provide a way to define a general concept, for example diabetes diagnosis, which can be mapped to specific findings. A Reminder Term must be mapped to at least one finding before it can be used for reminder evaluation. A Reminder Term can be mapped to more than one finding. Reminder Terms can be mapped to any of the findings, except Reminder Terms, that can be used in a Reminder Definition.

Each node of the findings multiple in a term has the following fields: BEGINNING DATE/TIME, ENDING DATE/TIME, USE INACTIVE PROBLEMS, WITHIN CATEGORY RANK, CONDITION, MH SCALE, and RXTYPE. These fields work exactly the same as the fields with the same names in the findings multiple of the reminder definition. If one of these fields is specified at the definition findings level, where the term is the finding, then each finding in the term will inherit the value. If the field is specified at the finding level of the term, then it will take precedence and replace what has been specified at the definition level.

See the chapter in this manual that describes Reminder Term options on page [138](#).

Skin Test – Skin Tests are found in the SKIN TEST file #9999999.28. Results for individual patients are found in the V SKIN TEST file #9000010.12. The default value used for CONDITION is RESULTS. Possible values are:

- 'P' FOR POSITIVE
- 'N' FOR NEGATIVE
- 'D' FOR DOUBTFUL
- 'O' FOR NO TAKE

If you want only those findings to be true for skin tests whose results are positive, the CONDITION would be I V="P".

VA Drug Class – VA Drug Class entries are found in the VA DRUG CLASS file #50.605. An entry from the VA Drug Class file points to one or more entries in the Drug file. Each of the corresponding entries in the Drug file is processed as described in the Drug section. The information displayed in the Clinical Maintenance component includes the VA Drug Class and the particular drug that was found.

VA Generic – VA Generic entries are found in the VA GENERIC file #50.6. (This was formerly called the National Drug file.) An entry from the VA Generic file points to one or more entries in the Drug file.

Each of the corresponding entries in the Drug file is processed as described in the Drug section. The information displayed in the Clinical Maintenance component includes the VA Generic name and the particular drug that was found.

Vital Measurement – Vital Measurement types are found in the GMRV VITAL TYPE file #120.51. Results for individual patients are found in the GMRV VITAL MEASUREMENT file #120.5. The default value used for the CONDITION is RATE, which is the value of the measurement. If you are going to use a CONDITION with this finding, you need to be familiar with how the Vitals package returns the Rate data. For example, if the vital sign is weight, Rate will be a number that is the weight in pounds. If the vital sign is blood pressure, then Rate can have two possible forms: systolic/diastolic or systolic/intermediate/diastolic. If your Condition is to be based only on systolic pressure, then it is straightforward; you always check the first piece. For example, if you want the finding to be true only for systolic pressures greater than 140, then the Condition would be I \$P(V,"/",1)>140. Checking the diastolic pressure is not so straightforward because there is no way to know in advance whether the Rate will be returned as systolic/diastolic or systolic/intermediate/diastolic. Insuring that you are always checking the diastolic requires the complex Condition statement I \$\$(\$L(V,"/")=3:\$P(V,"/",3),1:\$P(V,"/",2)).
NOTE: Blood pressure is the only Vital measurement for which the Rate can have two possible forms.

PXRM*2*18 Update:

If you are using \$P in a Condition, we recommend that you replace it with the appropriate CSUBs. Several national definitions and terms were originally distributed with Conditions using \$P; as part of this patch, they will be updated to use the SYSTOLIC and DIASTOLIC CSUBs.

SYSTOLIC/MEAN/DIASTOLIC and use of CSUB instead of \$P: The Clin2 support team pointed out that the value for blood pressure can come back in either of the following forms: SYSTOLIC/DIASTOLIC or SYSTOLIC/MEAN/DIASTOLIC (the second form is not very common). If the second form comes back, then the DIASTOLIC CSUB would have the value for mean, and if \$P was used in a Condition, it would also be the mean. The code was changed so that the DIASTOLIC CSUB will always have the correct value.

Reminder Location List – Reminder Location List entries are found in the REMINDER LOCATION LIST file #810.9. This file contains lists of stop codes and/or hospital locations for use as a reminder finding. Results for individual patients are found by looking at the patient's Visit file entries and matching the location associated with a Visit with a location in the location list. See the chapter in this manual, page [144](#), that describes Reminder Location List options.

Findings Fields

There are a number of fields in the Findings multiple that control how each Finding is used in the reminder evaluation process. Each of these fields is described in detail below. Some fields apply only to specific finding types and you will only be prompted for them if they apply to the selected finding item.

- FINDING ITEM
- REMINDER FREQUENCY
- MINIMUM AGE
- MAXIMUM AGE
- RANK FREQUENCY
- USE IN RESOLUTION LOGIC
- USE IN PATIENT COHORT LOGIC
- BEGINNING DATE/TIME
- ENDING DATE/TIME
- OCCURRENCE COUNT
- USE INACTIVE PROBLEMS (applies only to taxonomies that search Problem List)
- WITHIN CATEGORY RANK (applies only to health factors)
- MH SCALE (applies only to mental health instruments)
- RXTYPE (applies only to drug findings)
- CONDITION
- CONDITION CASE SENSITIVE
- USE STATUS/COND IN SEARCH
- FOUND TEXT
- NOT FOUND TEXT
- STATUS LIST (applies only to findings that have a status)
- COMPUTED FINDING PARAMETER (applies only to computed findings)

Findings Fields Description

REMINDER FREQUENCY, MINIMUM AGE, and MAXIMUM AGE – These are treated as a set that we can call a frequency age range set. If a finding is true, then the frequency age range set will override the baseline frequency age range set. This is used when a finding should override the baseline. For example, a patient with a particular health factor needs to get the reminder at an earlier age than normal and it should be done more frequently. The values these fields can take are exactly the same as those that set the baseline frequency and age range.

RANK FREQUENCY – If more than one finding that has a frequency age range set is true, then how do we decide which frequency age range set to use? That is the purpose of the RANK FREQUENCY. The frequency age range set from the finding with the highest RANK FREQUENCY will be used. In the absence of RANK FREQUENCY, the frequency age range set that will cause the reminder to be given the most often will be used. RANK FREQUENCY is a numerical value with 1 being the highest.

USE IN RESOLUTION LOGIC – This field specifies how a finding is used in resolving a reminder. It is a set of codes that can contain the Mumps Boolean operators and their negations. The operators are ! (OR), & (AND), !' (OR NOT), and &' (AND NOT). If a particular finding must be true in order for the reminder to be resolved, then you would use an AND in this field. If the finding is one of a number of findings that will resolve a reminder, then you would use an OR. For those cases where this mechanism

does not allow you to describe the exact logical combination of findings you require, you can input the logic directly in the CUSTOM RESOLUTION LOGIC field.

USE IN PATIENT COHORT LOGIC – This field specifies how a finding is used in selecting the applicable patient population; i.e., the patient cohort. It is a set of codes that works exactly like the USE IN RESOLUTION LOGIC. For those cases where this mechanism does not allow you to describe the exact logical combination of findings you require, you can input the logic directly in the CUSTOM PATIENT COHORT LOGIC field.

BEGINNING DATE/TIME – This is the beginning date/time to search for findings.

1. The date/time cannot be in the future.
2. The date/time can be any of the acceptable FileMan date/time formats or abbreviations.
3. In addition, you may use the abbreviations T-NY or NOW-NY, where N is an integer and Y stands for years.
4. If this is null, then the beginning date/time will correspond with the date/time of the oldest entry.

See the FileMan Getting Started Manual to learn about acceptable FileMan date/time formats and abbreviations.

ENDING DATE/TIME – This is the ending date/time to search for findings.

1. The date/time cannot be before the beginning date/time.
2. The date/time can be any of the acceptable FileMan date/time formats or abbreviations.
3. In addition you may use the abbreviations T-NY or NOW-NY, where N is an integer and Y stands for years.
4. If this is null then the ending date/time will be the end of today.

When date range searching is done, a finding with a single date is considered to be in the date range if the date of the finding falls anywhere in the date range defined by the BEGINNING DATE/TIME and ENDING DATE/TIME. The criteria for findings with a start date and a stop date are different. In this case, if there is any overlap between the date range defined by the start date and stop date and the date range defined by the BEGINNING DATE/TIME and the ENDING DATE/TIME, the finding is considered to be in the date range.

* Changes to Beginning and Ending Date/Time in Patch 18

New functionality was added to allow using the date of one finding to set the date range of another finding. The syntax for the date of a finding is FIEVAL(M,"DATE") or FIEVAL(M,N,"DATE"), where M is the finding number and N is the occurrence. This means you can now use dates like FIEVAL(3,"DATE")-3W as the Beginning or Ending Date/Time of another finding. The global reminder dates PXRMDOB and PXRMLAD can also be used. Note that if FIEVAL(M) is false or PXRMLAD does not exist, then the finding whose date range depends on the date of finding M will be set to false.

In conjunction with allowing FIEVAL(M,N,"DATE") to be used in Beginning Date/Time or Ending Date/Time, additional frequency units were added. The allowed values are now: H (hours), D (days), W (weeks), M (months), and Y (years). This change applies everywhere that a frequency can be used, including Beginning Date/Time, Ending Date/Time, Reminder Frequency in the Baseline Age Findings multiple, Findings multiple, Function Findings multiple, and Custom Date Due. Custom Date Due will now allow both "+" and "-"; in the past it only allowed "+".

OCCURRENCE COUNT - This is the maximum number of occurrences of the finding in the date range to return. If the **OCCURRENCE COUNT** is input as a positive number, N, up to N of the most recent occurrences will be returned and the finding will take the value of the most recent occurrence. If the **OCCURRENCE COUNT** is input as a negative number then this behavior is reversed. Up to N of the oldest occurrences will be returned and the finding will take the value of the oldest occurrence in the list.

USE INACTIVE PROBLEMS – This field applies only to taxonomies containing ICD 9 diagnoses. If the diagnosis is found in the **PROBLEM LIST** and it is inactive, then the finding cannot be true unless this field is set to **YES**.

WITHIN CATEGORY RANK – This field applies only to health factors. In order to understand how it works, you need to understand how health factors work in the reminder evaluation process. The default behavior is that all the health factor findings in the definition are grouped by category and only the most recent health factor in a category can be true. A problem can arise if there are two or more health factors in the same category and they have exactly the same date and time. (This can happen if multiple health factors are given during the same encounter.) If the date/times are the same, the health factor with the highest **WITHIN CATEGORY RANK** will be the true one. This is a numerical value like **RANK FREQUENCY** with 1 being the highest rank.

In some cases, you may want to have a health factor treated as an individual finding, suppressing the category behavior. To do this, use the special value of 0 for the **WITHIN CATEGORY RANK**.

MH SCALE – This is applicable only to Mental Health Instrument findings. The scale is used to score the results. Typing a “?” at the **MH SCALE** prompt will list all the scales that are applicable for the selected mental health test. Select the scale to use by typing its number. If no scale is selected then the first scale for the test will be used.

Patch 6 Changes:

To aid sites in making the conversion of Clinical Reminders to use MHA3, the post-init will convert all existing mental health findings to their MHA3 equivalent and **MH SCALE** values to the appropriate MHA3 scale. If the field **MH SCALE** is null, then the score for the first scale returned by MHA3 will be displayed in the Clinical Maintenance output.

When **MH SCALE** has a value, it will set the value of V for use in a Condition. In other words, V will be the score according to the scale stored in **MH SCALE**. Another change is that score is now returned as raw score^transformed score. Thus, if your Condition uses the raw score, you will use +V or \$P(V,U,1) and if it uses the transformed score, use \$P(V,U,2). The post-init will convert V to +V in all existing national Conditions for MH findings.

The entire set of scores has been made into a CSUB item in patch PXR*2*6, so that any score or combination of scores can be used in a Condition. For example, the MH Test AUIR has scales 279 through 329; if you want to use the raw score for scale 300, then you can use +V(“S”,300).

RXTYPE - **RXTYPE** is applicable only to drug findings and controls the search for medications. The possible **RXTYPE**s are:

- A - all
- I - inpatient
- N - non-VA meds
- O - outpatient

You may use any combination of the above in a comma-separated list. For example, I,N would search for inpatient medications and non-VA meds.

The default is to search for all possible types of medications. So a blank RXTYPE is equivalent to A.

CONDITION – Many types of findings have associated values. For example, for Education Topics, the value is Level of Understanding; for Vital Measurement, it is the value of the measurement. More specific information can be found in the detailed section for each finding type. The **CONDITION** field can be used to make the finding true or false depending on the value of the finding. The contents of this field are a single line of Mumps code that should evaluate to true or false. If the code evaluates to true, then the finding is true; if it evaluates to false, then the finding is false.

The default value for each finding type is given in the following table.

Finding Type	Value
Drug	None
Education Topic	Level of Understanding
Exam	Result
Health Factor	Level/severity
Immunization	Series
Laboratory Test	Value
Mental Health Instrument	Raw score
Orderable Item	Status
Radiology Procedure	Exam Status
Reminder Computed Finding	Determined by the programmer
Reminder Taxonomy	None
Skin Test	Results
VA Drug Class	None
VA Generic	None
Vital Measurement	Rate
Reminder Location List	Service Category

Some examples of simple **CONDITIONS** are shown in the following table:

Finding Type	Results File	Result Fields that can be used in CONDITION	Data example	CONDITION field example
Drug (50)		NONE – but you can use EFFECTIVE PERIOD of 0D, 0M, OR 0Y in the reminder definition to restrict view to current medications only		
Education Topic (9999999.09)	V PATIENT ED (9000010.06)	LEVEL OF UNDERSTANDING	1 for Poor 2 for Fair 3 for Good 4 for Group-no Assessment 5 for Refused	I V=1 I V=2 I V=3 I V=4 I V=5

Finding Type	Results File	Result Fields that can be used in CONDITION	Data example	CONDITION field example
Exam (9999999.15)	V EXAM (9000010.13)	RESULT	A for Abnormal N for Normal	I V="A" I V="N"
Health Factor (9999999.64)	V HEALTH FACTOR (9000010.23)	LEVEL/SEVERITY	M for Minimal MO for Moderate H for Heavy/Severe	I V="M" I V="MO" I V="H"
Immunization (9999999.14)	V IMMUNIZATION (9000010.11)	SERIES	P for Partially Complete C for Complete B for Booster 1 for Series 1 2 for Series 2 3 for Series 3 4 for Series 4 5 for Series 5 6 for Series 6 7 for Series 7 8 for Series 8	I V="P" I V="C" I V="B" I V=1 I V=2 I V=3 I V=4 I V=5 I V=6 I V=7 I V=8
Laboratory Test (60)	LAB RESULTS in "CH" node	Number returned from the Lab API as the lab result	180	I V>130
Location List	VISIT (9000010)	SERVICE CATEGORY	'A' for AMBULATORY 'H' for HOSPITALIZATION 'I' for IN HOSPITAL 'C' for CHART REVIEW 'T' for TELECOMMUNICATIONS 'N' for NOT FOUND 'S' for DAY SURGERY 'O' for OBSERVATION 'E' for EVENT (HISTORICAL) 'R' for NURSING HOME 'D' for DAILY HOSPITALIZATION DATA 'X' for ANCILLARY PACKAGE DAILY DATA	I V="A" I V="H" I V="I" I V="C" I V="T" I V="N" I V="S" I V="O" I V="E" I V="R" I V="D" I V="X"
Mental health Instrument (601)		RAW SCORE from API based on a scale	3 (CAGE)	I V>2
Orderable Item (101.43)				

In addition to the values for type of finding shown in the above table, the following global reminder variables can be used in any CONDITION:

- PXRIMAGE - patient's age
- PXRMDOB - patient's date of birth in FileMan format
- PXRMLAD – the last admission date in FileMan format, if there is no admission this will be null
- PXRMSSEX - patient's sex, in the format M for male or F for female

The use of these variables is very similar to how you use the V variable. For example, if you want the finding to apply only to patients who are 65 and younger, the CONDITION is I PXRIMAGE>65 (in English if AGE is not greater than 65). You can combine these variables and the V in a CONDITION. Let's say we want a finding that is true for all patients whose BMI>25 and were born before 1955. Our finding is the VA-BMI finding, so the CONDITION is (I V>25)&(PXRMDOB<2550101).

When using PXRMSSEX in a CONDITION, you can test for male patients with PXRMSSEX="M" and for female patients with PXRMSSEX="F". If we wanted to make the above example true only for female patients the CONDITION would be (I V>25)&(PXRMDOB<2550101)&(PXRMSSEX="F").

In addition to the default values for finding type, which are referred to as V in the Condition statement, you can now use subscripted V values.

Examples:

- I V("PDX")=["ABNORMALITY"]
- I (V="COMPLETE")&(V("PDX")["ABNORMALITY"])
- I V("DATE READ")<V("DATE")

The subscripts that can be used depend on the type of finding; the easiest way to determine what is available is to use the Reminder Test option and examine the FIEVAL array for the finding of interest.

Here is an example where the finding is an Education Topic.

```
FIEVAL(2)=1
FIEVAL(2,1)=1
FIEVAL(2,1,"COMMENTS")=
FIEVAL(2,1,"CSUB","COMMENTS")=
FIEVAL(2,1,"CSUB","LEVEL OF UNDERSTANDING")=1
FIEVAL(2,1,"CSUB","VALUE")=1
FIEVAL(2,1,"CSUB","VISIT")=3102
FIEVAL(2,1,"DAS")=83
FIEVAL(2,1,"DATE")=2990520.07292
FIEVAL(2,1,"LEVEL OF UNDERSTANDING")=1
FIEVAL(2,1,"VALUE")=1
FIEVAL(2,1,"VISIT")=3102
FIEVAL(2,"COMMENTS")=
FIEVAL(2,"CSUB","COMMENTS")=
FIEVAL(2,"CSUB","LEVEL OF UNDERSTANDING")=1
FIEVAL(2,"CSUB","VALUE")=1
FIEVAL(2,"CSUB","VISIT")=3102
FIEVAL(2,"DAS")=83
FIEVAL(2,"DATE")=2990520.07292
FIEVAL(2,"FILE NUMBER")=9000010.16
FIEVAL(2,"FINDING")=369;AUTTEDT(
FIEVAL(2,"LEVEL OF UNDERSTANDING")=1
FIEVAL(2,"VALUE")=1
FIEVAL(2,"VISIT")=3102
```

Each array element that contains a "CSUB" (Condition Subscript) element can be used in a Condition statement, so for this finding, we could use V("COMMENTS"), V("LEVEL OF UNDERSTANDING"), V("VALUE"), or V("VISIT") in the Condition.

Some finding types may return multiple values for certain types of data; an example is qualifiers for vitals. In the Reminder Test Option output for a weight finding you might see qualifiers such as:

- FIEVAL(1,"QUALIFIER",1)=ACTUAL

- FIEVAL(1,"QUALIFIER",2)=STANDING

You could use these in a Condition as follows:

```
I (V("QUALIFIER",1)="ACTUAL") & (V("QUALIFIER",2)="STANDING") & (V>165)
```

Since you don't always know what subscript the various qualifiers will be associated with, you can use the wildcard in the Condition as follows:

```
I (V("QUALIFIER","*")="ACTUAL") & (V("QUALIFIER","**")="STANDING") & (V>165)
```

Lab results now include specimen, so that specimen can be used in the Condition statement. For example, I V("SPECIMEN")="SERUM. " Again, the best way to find out what is available for a particular finding is to using the Reminder Test Option and see what comes back with a "CSUB" subscript. CONDITION CASE SENSITIVE. When this field is set to "NO" then the CONDITION will not be case-sensitive. The default is case-sensitive.

USE STATUS/COND IN SEARCH - Give this field a value of "YES" if you want the STATUS LIST and/or CONDITION applied to each result found in the date range for this finding. Only results that have a status on the list or for which the CONDITION is true will be retained. The maximum number to retain is specified by the OCCURRENCE COUNT.

Note - if the finding has both a STATUS LIST and a CONDITION the status check will be made first; the CONDITION will be applied only if the finding passes the status check.

FOUND TEXT – This is a word-processing field. The contents of this field will be displayed in the Clinical Maintenance component whenever the finding is found (true).

NOT FOUND TEXT – This is a word-processing field. The contents of this field will be displayed in the Clinical Maintenance component whenever the finding is not found (false).

Both FOUND TEXT and NOT FOUND TEXT can contain TIU objects. In both, you can control the output format by using \\ to force a line break.

STATUS LIST - This field applies to finding types that have an associated status. When the search for patient findings is done, only those findings that have a status on the list can be true. The allowable values depend on the finding type. If no statuses are specified then the default list for each finding type will be used.

COMPUTED FINDING PARAMETER - This field applies only to computed findings and is used to pass a parameter into the computed finding. Acceptable values for this field depend on the computed finding and should be documented in the computed finding description.

Function Findings

Function Findings (FF) do computations on the results from regular findings. Function Findings can be used just like regular findings with one exception, there is no date associated with an FF which means the Resolution Logic cannot be written so that it is made true solely by FFs. Besides providing new and expanded functionality, FFs can make custom logic much simpler to understand.

Function Findings expand upon, and are intended to replace, the old-style "Most Recent Date" (MRD) functionality of Reminders 1.5 that could be used in customized Patient Cohort Logic to return the most recent date from a list of finding items. Old MRD logic released in National Reminders will be converted to Function Findings and the reminders will be redeployed with V.2.0.

Note that this new functionality may be difficult to comprehend. Be advised that you should not attempt to modify existing Function Findings or create new Function Findings unless you understand what they do and test the results thoroughly.

Patch 18 Changes to Function Findings

The set of allowed operators in function finding strings was expanded. It now includes: +, -, *, **, /, \, #, !, &, ` , >, <, =,], [. The additions were *, **, /, \, #.

All function findings were improved to handle the case when the findings they use are false. Functions will now return the value "UNDEF" when they cannot be evaluated.

An optional third argument of "NAV" was added to the DIFF_DATE function. If this argument is present, the actual value instead of the absolute value is returned.

Two new functions, MAX_VALUE and MIN_VALUE, were added.
A new function DIFF_DT which is a generalized version of DIFF_DATE was added.

There were some CSUBs that could not be used in a function finding because they would not pass the input transform. "ADMISSION DATE/TIME" is an example of one that could not be used. It was not passing because of the space and the "/". The input transform was changed to allow all legitimate CSUBs.

Clin2 reported that a list type reminder that used the VALUE function in a function finding failed the validation when creating a reminder rule. This was because the validator was written before functions could have CSUB values as arguments. The validation code was changed to handle those cases.

Creating a Function Finding

To define or edit a Function Finding, select the option "FF Function Finding" from the reminder definition editor (in Add/Edit Reminder Definition or Copy Reminder Definition on the Reminder Definition Management menu).

The name of a Function Finding is a number, so, when prompted to "Select FUNCTION FINDING," enter a number. Function Finding number 1 is created in the following example:

```
Select Reminder Definition:  FFTEST      LOCAL
    Select one of the following:
        A      All reminder details
        G      General
        B      Baseline Frequency
        F      Findings
        FF     Function Findings
        L      Logic
        C      Custom date due
        D      Reminder Dialog
        W      Web Addresses
```

```

Select section to edit: FF Function Findings
Function Findings
Select FUNCTION FINDING: 1
Are you adding '1' as a new FUNCTION FINDINGS (the 1ST for this REMINDER
DEFINITION)? No// Y
(Yes)
FUNCTION FINDINGS FUNCTION STRING: MRD(1,3)>MRD(11,8,4)
FUNCTION FINDING NUMBER: 1// <Enter>
FUNCTION STRING: MRD(1,3)>MRD(11,8,4) Replace <Enter>
FOUND TEXT:
  No existing text
  Edit? NO// <Enter>
NOT FOUND TEXT:
  No existing text
  Edit? NO// <Enter>
USE IN RESOLUTION LOGIC: <Enter>
USE IN PATIENT COHORT LOGIC: <Enter>
REMINDER FREQUENCY: <Enter>
MINIMUM AGE: <Enter>
MAXIMUM AGE: <Enter>

RANK FREQUENCY: <Enter>
Select FUNCTION FINDING: <Enter>

```

When prompted, enter the number of the finding you want to create/edit. If the function finding number does not exist, you will be asked to confirm that you want to add a new function finding:

```

Select FUNCTION FINDING: 1
  Are you adding '1' as a new FUNCTION FINDINGS (the 1ST for this REMINDER
DEFINITION)? No// Y
(Yes)

```

Next, you will be prompted to add the Function Finding string.

```

FUNCTION FINDINGS FUNCTION STRING: MRD(1,3)>MRD(11,8,4)

```

Then the name and the FUNCTION STRING will be displayed on the screen so you can modify the FUNCTION STRING if you wish to do so:

```

FUNCTION FINDING NUMBER: 1//
FUNCTION STRING: MRD(1,3)>MRD(11,8,4) Replace

```

Lastly, you will be prompted for the following fields, which work the same as they do with regular Findings.

```

FOUND TEXT:
  No existing text
  Edit? NO//
NOT FOUND TEXT:
  No existing text
  Edit? NO//
USE IN RESOLUTION LOGIC:
USE IN PATIENT COHORT LOGIC:
REMINDER FREQUENCY:
MINIMUM AGE:
MAXIMUM AGE:
RANK FREQUENCY:

```

If the FF is true and USE IN RESOLUTION LOGIC and USE IN PATIENT COHORT LOGIC are not specified, the FF found/not found text will appear under the Clinical Maintenance Information heading.

Function Findings Primer

By Alan Montgomery and Philip VanCamp, Health Product Support

Function findings are stored in Vista file 802.4. Function findings operate on data from standard findings and return computed data. They can be used in patient cohort logic and resolution logic or for display as informational text. This file defines the functions that can be used in function findings.

OPERATORS and GLOBAL VARIABLES

MRD

MAX_DATE

MIN_DATE

COUNT

FI

DUR

DIFF_DATE

DTIME_DIFF

VALUE

NUMERIC

MAX_VAL

MIN_VAL

Operators and Global Variables

The mathematical operators that functionally can be used are as follows:

+	ADD
-	Subtract
*	Multiply
/	Divide by
\	Integer division (remainder is dropped)
**	Exponential
#	Modulus (remainder)
>	Greater than
<	Less than
=	Equals

The logical operators that functionally can be used are as follows:

&	And
!	Or
^	Not
[Contains
]	Follows

Please note that even though all of these operators may be used within function findings, it is not always clinically relevant to use them. We will list the operators for each function that would clinically apply.

For example, we could multiply the date of FI(1) by the date of FI(2) and do a comparison to some number, but that would not be clinically relevant.

Function string: MRD(1)*MRD(2)>60

Clinically, there would be no reason to multiply two dates.

Certain **Global Variables** are set every time a reminder is evaluated on a patient. These are as follows:

- PXRMAGE – Returns the patient’s age
- PXRMDOB – Returns the patients date of birth in fileman format
- PXRMDOD – Returns the patients date of death in fileman format
- PXRMLAD – Returns the patients last admission date in fileman format
- PXRMSEX – Returns the patients sex

Global variables may be used in function findings as part of the string.

Example: MRD(1)>MRD(2)&(PXRMAGE>50)

The Global Variables may NOT be the only part of the string.

MRD

This function finding returns the most recent date of the finding(s) in the argument list of the MRD string, and then makes a comparison based on the operator used to another MRD string or a reminder global variable. Reminder Global variables within reminders are:

All mathematical operators may be used with MRD, but the relevant operators include:

- Greater than - >
- Less than - <
- Equals - =

Relevant logical operators include:

- Not – ‘
- And - &
- Or - !

These may be used in combinations as well; i.e. ‘<, ‘=, ‘>

Examples:

1. MRD(1)’>MRD(2) This would be true if the date of finding 1 is less than or equal to the date of finding 2. This is because of the “NOT GREATER THAN” notation which implies “less than or equal to.”
2. MRD(1,2)<MRD(3) This would be true if the most recent date of finding 1 and 2 is less than the date of 3. If both finding 1 and 2 are true, the function would use the most recent date of those two for the comparison to finding 3.
3. MRD(1,2)=MRD(3,4) This would be true if the most recent date of finding 1 and 2 is equal to the most recent date of finding 3 and 4. If both finding 1 and 2 are true, the function would use the most recent date of those two. The same would hold true for the second part of this string, where, for comparison, the most recent date of finding 3 or 4 would be used.
4. MRD(1)>PXRMLAD This would be true if the date of finding 1 is more recent than the patient’s last admission date.
5. (MRD(1,2) >MRD(4))&(PXRMDOB>2500101) This would be true if the most recent date of findings 1 and 2 is more recent than the date of finding 4, AND the patient s date of birth is after January 1, 1950.

Be aware that if you have an ending date time set on the finding(s) that is part of the MRD string, it could affect the date returned. For example, your string is MRD(1,2)>MRD(3) and there is no ENDING DATE/TIME entry on either finding, then the function will work as described above. If there is an ENDING DATE/TIME entry, let’s see how the outcome is affected.

FI(1) has ending date/time entry of T-1Y and FI(2) has NO ending date/time:

Dates of findings, and assuming today is 7/29/10 for the example:

<u>FI(1)</u>	<u>FI(2)</u>
7/24/10	6/18/10
2/3/10	4/8/10
6/1/09	3/20/08

Given these dates with the ending date/time entry on FI(1), the MRD that would be used to compare to FI(3) would be date of 6/18/10 from FI(2). Even though the FI(1) dates of 7/24/10 and 2/3/10 exist, because of the ending date/time entry of T-1Y, they are not considered in the evaluation.

Another caveat of the MRD functionality is the use of a finding in the MRD string that has a negative occurrence count.

Example: MRD(1)>MRD(2) and Finding 1 has a -1 occurrence count

<u>FI(1)</u>	<u>FI(2)</u>
7/24/10	8/18/10
2/3/10	4/8/10
6/1/09	3/20/08

With FI(1) having a -1 as occurrence count, the function string MRD(1)>MRD(2) would evaluate to false because the date of FI(1) would be 6/1/09, which is the OLDEST occurrence retrieved by use of the -1 in the occurrence count of FI(1).

MRD can be also combined with other Function Findings and global variables as below:

MRD(1)>MIN_DATE(2)&(COUNT(2)>3)
MRD(2)>3100510!(PXRIMAGE>45)

CLASS: NATIONAL

MAX_DATE

MAX_DATE functions the same as MRD. This function finding returns the most recent date of the finding(s) in the argument list of the MAX_DATE string, and then makes a comparison based on the operator used to another MAX_DATE string or a global variable.

All mathematical operators may be used with MAX_DATE, but the relevant operators include:

Greater than - >
Less than - <
Equals - =

Relevant logical operators include:

Not - '
And - &
Or - !

These may be used in combinations as well, i.e. '<', '=', '>'

Examples:

1. MAX_DATE(1)>MAX_DATE(2) This would be true if the date of finding 1 is more recent than the date of finding 2.
2. MAX_DATE(1,2)<MAX_DATE(3) This would be true if the most recent date of finding 1 and 2 is less than the date of 3. If both finding 1 and 2 are true, the function would use the most recent date of those two for the comparison to finding 3.
3. MAX_DATE(1,2)=MAX_DATE(3,4) This would be true if the most recent date of finding 1 and 2 is equal to the most recent date of finding 3 and 4. If both finding 1 and 2 are true, the function would use the most recent date of those two. The same would hold true for the second part of this string, where, for comparison, the most recent date of finding 3 or 4 would be used.
4. MAX_DATE(1)>PXRMLAD This would be true if the date of finding 1 is more recent than the patients last admission date.
5. (MAX_DATE(1,2) >MAX_DATE(4))&(PXRMDOB>2500101) This would be true if the most recent date of findings 1 and 2 is more recent than the date of finding 4 AND the patient s date of birth is after January 1, 1950.

Be aware that if you have an ending date time set on the finding(s) that are part of the MAX_DATE string, it could affect the date returned. For example, your string is MAX_DATE(1,2)>MAX_DATE(3) and there is no ENDING DATE/TIME entry on either finding, then the function will work as described above. If there is an ENDING DATE/TIME entry, let's see how the outcome is affected.

FI(1) has ending date/time entry of T-1Y and FI(2) has NO ending date/time

Dates of findings and assuming today is 7/29/10 for the example

<u>FI(1)</u>	<u>FI(2)</u>
7/24/10	6/18/10
2/3/10	4/8/10
6/1/09	3/20/08

Given these dates with the ending date/time entry on FI(1), the MAX_DATE that would be used to compare to FI(3) would be date of 6/18/10 from FI(2). Even though the FI(1) dates of 7/24/10 and 2/3/10 exist, because of the ending date/time entry of T-1Y, they are not considered in the evaluation.

Another caveat of the MAX_DATE functionality is the use of a finding in the MAX_DATE string that has a negative occurrence count.

Example: MAX_DATE(1)>MAX_DATE(2) and Finding 1 has a -1 occurrence count

<u>FI(1)</u>	<u>FI(2)</u>
7/24/10	6/18/10
2/3/10	4/8/10
6/1/09	3/20/08

With FI(1) having a -1 as occurrence count, the function string MAX_DATE(1)>MAX_DATE(2) would evaluate to false because the date of FI(1) would be 6/1/09, which is the OLDEST occurrence retrieved by use of the -1 in the occurrence count of FI(1).

MAX_DATE can be also combined with other Function Findings and global variables as below:

MAX_DATE(1)>MIN_DATE(2)&(COUNT(2)>3)

MAX_DATE(2)>3100510!(PXRIMAGE>45)

CLASS: NATIONAL

MIN_DATE

This function finding returns the oldest date of the finding(s) in the argument list of the MIN_DATE string, and then makes a comparison based on the operator used to another MIN_DATE string or a global variable.

All mathematical operators may be used with MIN_DATE but the relevant operators include:

Greater than - >

Less than - <

Equals - =

Relevant logical operators include:

Not - !

And - &

Or - |

These may be used in combinations as well, i.e. '<', '=', '>'

Examples:

1. MIN_DATE(1)>MIN_DATE(2) This would be true if the date of finding 1 is more recent than the date of finding 2
2. MIN_DATE(1,2)<MIN_DATE(3) This would be true if the most recent date of finding 1 and 2 is less than the date of 3. If both finding 1 and 2 are true, the function would use the most recent date of those two for the comparison to finding 3
3. MIN_DATE(1,2)=MIN_DATE(3,4) This would be true if the most recent date of finding 1 and 2 is equal to the most recent date of finding 3 and 4. If both finding 1 and 2 are true, the function would use the most recent date of those two. The same would hold true for the second part of this string where for comparison, the most recent date of finding 3 or 4 would be used.
4. MIN_DATE(1)>PXRMLAD This would be true if the date of finding 1 is more recent than the patient's last admission date.
5. (MIN_DATE(1,2) > MIN_DATE(4)) & (PXRMDOB > 2500101) This would be true if the most recent date of findings 1 and 2 is more recent than the date of finding 4 AND the patient's date of birth is after January 1, 1950.

Please note that if you have a Beginning Date/Time (BDT) on a finding. This may impact your results. The BDT will restrict the dates used for evaluation to only those occurring during the specified date range. So your oldest finding date will be the oldest one of those within the range. For example, in the Function Finding of MIN_DATE(1) > MIN_DATE(2), below is a list of all the dates for each finding.

FI(1)	FI(2)
7/29/10	6/26/10
6/15/10	4/1/09

3/26/08

2/5/08

With no BDT defined on either finding the evaluation of MIN_DATE(1) > MIN_DATE(2) would be 3/26/08 > 2/5/08. Thus the finding is TRUE.

If you had a BDT of T-1Y on FI(2) (given today is 7/29/10) the evaluation of MIN_DATE(1) > MIN_DATE(2) would now be 3/26/08 > 6/26/10. Thus the FF is FALSE. Even though there are older dates of FI(2).

Another caveat of the MIN_DATE functionality is the use of a finding in the MIN_DATE string that has a negative occurrence count.

Example: MIN_DATE(1)>MIN_DATE(2) and Finding 1 has a -2 occurrence count

<u>FI(1)</u>	<u>FI(2)</u>
7/24/10	6/18/10
2/3/10	4/8/10
6/1/09	3/20/08

With FI(1) having a -2 as occurrence count, the function string MIN_DATE(1)<MIN_DATE(2) would evaluate to false because the date of FI(1) would be 6/1/09, which is the OLDEST of the latest two occurrences retrieved by use of the -2 in the occurrence count of FI(1). The date of FI(2) would be 3/20/08 since we are also using the MIN_DATE function.

MIN_DATE can be also combined with other Function Findings and global variables as below:
MIN_DATE(1)>MIN_DATE(2)&(COUNT(2)>3)
MIN_DATE(2)>3100510!(PXRIMAGE>45)

CLASS: NATIONAL

COUNT

The COUNT Function Finding checks to see if there are a certain number of occurrences of a particular finding. The syntax of this function finding is COUNT(1)>3. In this example, a check is done to see if there are more than 3 occurrences of FI(1). The COUNT function finding works in conjunction with the occurrence count parameter of the finding number that COUNT is looking at. If you have your COUNT string set as COUNT(1)>2, then on FI(1), you will need to ensure the occurrence count is set to at least 3. There are other factors that come into play as well, such as entries on the following fields: CONDITION, BEGINNING DATE/TIME, ENDING DATE/TIME, USE STATUS/COND IN SEARCH. These will be addressed below.

All mathematical operators that may be used with COUNT, but the relevant operators or operator combinations include:

Less than - <
Greater than - >
Equal to - =
NOT - !
AND - &
OR - |

With no entries on the above mentioned fields (CONDITION, BEGINNING DATE/TIME, ENDING DATE/TIME, USE STATUS/COND IN SEARCH), the COUNT works as follows:

FI(1) has occurrence count of 3

FF(1) has string of COUNT(1)>2

The FF(1) will be true if FI(1) has at least 3 occurrences

If FI(1) has dates defined on beginning date/time or ending date/time, then when COUNT is invoked, it will look for the number of occurrences designated by the entry in the occurrence count field within those date ranges and then based on what the string of COUNT is, will make a determination of TRUE or FALSE.

With Use Status/Condition in Search set to NO

If FI(1) has a Condition or Status associated, then the number of returned occurrences will be the number of instances that meet the condition or Status up to the value in the occurrence count field. Also, if there are entries on beginning date/time and ending date/time, those parameters will also be considered in the evaluation of the FF. Example: FI(1) is an A1C lab test with condition of I V>9.0 and occurrence count of 5. Given a list of values within the date range specified by beginning date/time and ending date/time are as follows:

8.0, 7.5, **9.1, 9.2**, 8.8, 8.4, 9.3, 9.4, 7.9, 9.1, 8.5

The COUNT(1) will be 2 because only the last five occurrences are considered. If you had a string of COUNT(1)>2, then the FF would be false. In summary, the *n* number of occurrences will be returned and then the condition applied. If the number of instances that meets the condition makes the FF string True, then the FF is TRUE.

With Use Status/Condition in Search set to YES

Again, assuming occurrence count of 5 on FI(1) (Lab test) and condition of I V>9.0. The last 5 occurrences that **actually meet** the condition within the date range will be returned. Given the same list of values as above, the number of occurrences up to the *n* number that meet the condition will be returned.

8.0, 7.5, **9.1, 9.2**, 8.8, 8.4, **9.3, 9.4**, 7.9, **9.1**, 8.5

The bold values will be returned and if the String of the FF was COUNT(1)=5, then the FF would be TRUE. Be careful with the use of USE STATUS/CONDITION in SEARCH as it will affect your outcome.

COUNT can be also combined with other Function Findings and global variables as below:

COUNT(1)>2&(COUNT(3)=1))

COUNT(4)=2!(MRD(2)>MRD(1))

COUNT(3)<5&(PXRIMAGE>50!PXRMLAD>3100317)

CLASS: NATIONAL

FI

This function finding provides a way to logically string regular findings and/or other function findings and/or reminder global variable combinations together. The function finding will be evaluated and return a TRUE or FALSE value. Complex strings can be written using parenthesis to group items together. Below are some examples. In some of these examples you will see the use of the global variables and other function findings:

FI(1)&FI(2)&(FI(3)!FI(4))

F(1)&FF(1)&'FF(2)

```
FI(2)&FF(1)&(MRD(1)>PXRMLAD)
FI(2)&FI(3)&FI(4)&'FF(1)&(PXRMSSEX="F")&(PXRMDOB>2500101)
```

CLASS: NATIONAL

DUR (Duration)

For findings that have a start and stop date (orderable items, medications), DUR will be the number of **days** between the start and stop date of the finding. For orders/medications that do not have a stop date, the current date is used as the stop date.

DUR(1)>60

Orderable Item example

```
FI(1)=OI.HEMATOLOGY CONSULT
FF(1)=DUR(1)>60
```

Here is an excerpt from a reminder test to show how this works for a finding with no stop date:

Orderable Item: HEMATOLOGY CONSULT

06/20/2006 Status: pending, Start date: 04/02/2004, Stop date: missing

The DUR would be 809 days:

FIEVAL("FF1","VALUE")=809 if the current date was 6/20/2006. The reminder calculates the number of days from 04/02/2004 (start date of consult) and stop date, which in this case we are using 06/20/2006 as the current date.

For findings that have only a single date, DUR works in conjunction with the Occurrence Count Field and is the number of days between the first and last occurrence. If there is only one occurrence, then DUR will be 0. So, the default value of the occurrence count field is 1, therefore, if you are using the DUR on a finding that only has 1 as the occurrence count, the DUR will always be 0. Your Occurrence Count Field setting will determine which findings are evaluated. For example, let's assume you have a specific Health Factor (HF) that is in a Veterans record 10 times. If your Occurrence Count is set to 5, the DUR will be only evaluated between the most recent date of the HF and that of the 5th most recent date of the HF. If your Occurrence Count is set to 99, then the most recent and the oldest dates of the HF are compared to give the DUR. Since the highest numerical value for the occurrence count field is 99, in theory, if you had 200 occurrences (of a blood pressure or pain score), then instead of getting the duration of the most recent occurrence and the 200th occurrence, you would in actuality get the duration of the most recent and the 99th occurrence.

Please note that if you have a Beginning Date Time (BDT) or Ending Date Time (EDT) on your finding, the Occurrence Count will only pull the specified number of entries during that time frame and then do the DUR evaluation on the First and Last dates of those "filtered" list of finding items.

Another example showing how your return value for DUR could be affected by occurrence count entry:

Finding 1 is a Health Factor with given entry dates:

3100624 (June 24, 2010)

3090516 (May 16, 2009)

3080516 (May 16, 2008)

If function finding string is DUR(1)>370 and if occurrence count of FI(1) is set to value of 2, then DUR would be true because difference would be 404, which is the difference between the most recent and second most recent entries. If occurrence count is set to -2, then DUR would be False because difference is 365, which is the difference between the oldest and second oldest entries.

DUR can be also combined with other Function Findings and global variables as below:

DUR(1)>120&(DIFF_DATE(1,2)>100)
DUR(2)<50&((PXRIMAGE>75)&(MRD(1)>3060910))

CLASS: NATIONAL

DIFF_DATE

This function finding returns the difference in days between the dates of the two findings listed as parameters. The default is to return the absolute value, but if the optional third parameter of “N” is present, the actual value is returned. If you want the actual value, be aware that if the date of the second parameter is more recent than the date of the first parameter, the result will be negative.

Syntax: DIFF_DATE(1,2)>*n* where the “1” and “2” are findings and are also called parameters in this case and *n* is the number of days.

Some examples:

Given dates

FI(1)=3100710 (July 10, 2010)

FI(2)=3100720 (July 20, 2010)

DIFF_DATE(1,2)>5 This will evaluate as TRUE because there are 10 days (absolute value) between FI(1) and FI(2)

DIFF_DATE(1,2,"N")<-6 This will evaluate as TRUE because there are negative 10 (-10) days between FI(1) and FI(2). If we simply change the order of the parameters (FI(1) and FI(2)), it will change the evaluation as long as the “N” is left as a third parameter.

DIFF_DATE(2,1,"N")<-6 This will evaluate as FALSE because there are 10 days between FI(1) and FI(2)

You **cannot** use reminder global variables directly in the DIFF_DATE function since it only works on dates of regular findings. You **can** use the Computed Finding VA-FILEMAN DATE to create a regular finding with a specific date. For example, if you want to determine if the date of finding 1 occurred more than 20 days after the last admission, set up the computed finding (VA-FILEMAN DATE) with PXRMLAD in the Computed Finding Parameter field. If finding 2 is the computed finding, the function string would be DIFF_DATE(1,2)>20. Another example would be to compare the date of FI(1) to today’s date. Again, you would use the computed finding VA-FILEMAN DATE and enter TODAY or NOW (if you want the time included) into the computed finding parameter field. Then function string would be something like DIFF_DATE(1,2)>200.

In the above examples, the assumption is made that there are no entries on beginning date/time and ending date/time fields. Again, as with other function findings, having an ending date/time could affect the dates that are used. Let’s give an example.

FI(1) dates:

3100501

3090501

FI(2) dates:

3100525

FI(1) has an ENDING DATE/TIME entry of 3100430. FI(2) has no ENDING DATE/TIME entry.

Given these dates and a DIFF_DATE string of DIFF_DATE(1,2)>30, the FF will be TRUE because for FI(1), the date that will be used is 3090501 due to the entry in ENDING DATE/TIME field.

The comparison would be $389 > 30$ which is true. The 389 value is the number of days between FI(1) and FI(2). If you remove the ENDING DATE/TIME entry, then the FF will be FALSE because for FI(1), the date that will be used is 3100501. The comparison would be $24 > 30$ which is false. The 24 value is the number of days between FI(1) and FI(2).

DIFF_DATE can be also combined with other Function Findings and global variables as below:

`DIFF_DATE(1,2)>100&(MRD(1,2)>MRD(3))`

`DIFF_DATE(2,4)=0!(PXRMDOB>2450101)`

CLASS: NATIONAL

DTIME_DIFF

This function finding is a generalized function that returns the difference in time between the dates of two findings. The difference in time can be displayed down to the second. It can be displayed by Days, Hours, Minutes or Seconds. This function also gives you the ability to look at Occurrences and CSUB items. Note that if you want to compare an occurrence other than the first, you must set the occurrence count on that finding to be something other than 1. Also, fields such as BEGINNING DATE/TIME, ENDING DATE/TIME, CONDITION, USE STATUS/COND IN SEARCH can change the dates returned by your function finding.

Syntax: `DTIME_DIFF(F1,O1,C1,F2,O2,C2,U,A)` where F is finding number, O is occurrence number, C is CSUB item, U is units which can be D for Days, H for Hours, M for Minutes or S for Seconds. If A is present, then the absolute value of the difference will be returned. If A is omitted, then the result could be calculated as a negative value.

Any of the parameters in the DTIME_DIFF function that are text must be in quotes.

Example: `DIFF_DT(1,1,"DATE",2,1,"DATE","D","A")`

In this example the absolute value, in Days, the difference between finding 1, occurrence 1 DATE CSUB and finding 2, occurrence 1 DATE CSUB

Some examples of DTIME_DIFF

FI(1) has 3 occurrences and we have the occurrence count set to 3

Dates of occurrences:

3100409

3090409

3080409

`DTIME_DIFF(1,1,"DATE",1,2,"DATE","D","A")>300` would evaluate to TRUE because the absolute difference in DAYS between the first occurrence of finding 1 date and the second occurrence of finding 1 date is 365 days, so $365 > 300$.

`DTIME_DIFF(1,1,"DATE",1,3,"DATE","H")>14400` would evaluate to TRUE because the difference in HOURS between the first occurrence of finding 1 date and the third occurrence of finding 1 date is 17520 hours, so $17520 > 14400$

`DTIME_DIFF(1,2,"DATE",1,1,"DATE","D")>50` would evaluate to FALSE because the difference in DAYS between the second occurrence of finding 1 date and the first occurrence of finding 1 date is -365 days, so $-365 > 50$ is FALSE. The reason the result is negative (-365) is because we did not specify the "A" parameter for absolute value.

DTIME_DIFF can be also combined with other Function Findings and global variables as below:

`DTIME_DIFF(1,1,"DATE",1,2,"DATE","D")>60&(COUNT(2)=5)`

`DTIME_DIFF(1,1,"DATE",2,1,"DATE","D","A")<400&(PXRIMAGE>40)`

VALUE

The VALUE function returns any of the “CSUB” values of a particular occurrence of a finding for comparison to a different occurrence of the same finding or to an occurrence of a different finding. The argument list is the finding number, the occurrence and the CSUB of interest. For example, if you wanted to check to see if occurrence 1 of a lab finding was less than occurrence 2 of the same lab finding, the function string would be VALUE(4,1,”VALUE”)<VALUE(4,2,”VALUE”). If you are comparing multiple occurrences of a particular finding, then you must remember to set the occurrence count on that finding to a value high enough to work in your function string. Note that fields BEGINNING DATE/TIME, ENDING DATE/TIME, CONDITION, USE STATUS/COND IN SEARCH may have significant impact on the data returned by the VALUE function. Also, using a negative number in the occurrence count will/could have a significant impact on the results returned.

Common operators used with the VALUE function are:

- Greater than - >
- Less than - <
- Equals - =
- AND - &
- OR - !
- NOT - ~

Examples:

I. FI(1) is a lab test with occurrence count set to 3. Values are as follows

- 6.0
- 5.5
- 5.0

VALUE(1,1,”VALUE”)>(VALUE(1,2,”VALUE”))>(VALUE(1,3,”VALUE”))

6.0>5.5>5.0 would evaluate to TRUE which could be clinically significant because the value is trending upwards.

II. FI(1) is an education topic with occurrence count set to 2. The CSUB “Level of Understanding” values are as follows:

- Occurrence 1 – POOR
- Occurrence 2 – POOR

VALUE(1,1,”LEVEL OF UNDERSTANDING”)=”POOR”&(VALUE(1,2,”LEVEL OF UNDERSTANDING”)=”POOR”)) This could be clinically significant because the last two education topics level of understanding was POOR

VALUE can be also combined with other Function Findings and global variables as below:

- VALUE(1,1,”LEVEL OF UNDERSTANDING”)=”POOR”&(COUNT(2)=2)
- VALUE(1,1,”LEVEL OF UNDERSTANDING”)=”POOR”!(PXRMLAD>3100909)

NUMERIC

The NUMERIC function returns the first numeric portion of any CSUB value for a particular finding. For example, if the COMMENT field of a health factor contains a numeric value (i.e. an outside lab result), NUMERIC can be used test it.

Assume FI(1) is a Health Factor for an outside HGB A1C result. On the reminder dialog, there is a comment field associated with the dialog element. If a numeric value is entered into the comment field as a piece of the comment, then this becomes computable data for the NUMERIC function. This value in this comment field is stored in PCE associated with the health factor, so that when a reminder is evaluated, that value can be used as a possibility for cohort or resolution logic or displayed as informational text.

The syntax of NUMERIC is finding number, occurrence, CSUB.

NUMERIC(1,1,"COMMENT")>5.0 This essentially says the function will be true if the very first numeric portion of the comment field of finding 1, occurrence 1 is greater than 5.0. Please note that if the comment field entry is "A1C: 8.5", then the part of the comment that will be evaluated will be the "1" part of "A1C", not the actual value of 8.5. It is strongly suggested that if you are using this function that you should provide education to the fact that the first part of the comment should be numeric.

As with all functions, the BEGINNING DATE/TIME, ENDING DATE/TIME, CONDITION, USE STATUS/COND IN SEARCH fields could significantly impact your results so pay close attention to these entries.

NUMERIC can be also combined with other Function Findings and global variables as below:

```
NUMERIC(1,1,"COMMENT")>4.0&'(MRD(2)'<3100909)
NUMERIC(2,2,"COMMENT")<5&(PXRIMAGE>60)
```

CLASS: NATIONAL

MAX_VALUE

The MAX_VALUE function returns the maximum value of *n* number of occurrences of a specific CSUB or multiple CSUB's of a single finding or multiple findings. The CSUB that is being requested must be a numeric value. Any CSUB requested that is not numeric will be treated as having a value of zero. For instance, if you want to know the largest A1C result a patient has, you can use the MAX_VALUE function.

The syntax of the function is MAX_VALUE(N,"CSUB")<operator><test value> where N is the finding number. In the above example with A1C, assume the A1C is FI(1). The function string would be MAX_VALUE(1,"VALUE"). Note that you have to set the occurrence count on FI(1) to a value other than 1 or you will get the latest (most recent) result. If you wanted to look at the last 20 A1C values and see if the largest value is greater than 10, you would set the occurrence count to 20 on the finding and then use the string MAX_VALUE(1,"VALUE")>10. The function will be true if the value returned from MAX_VALUE is greater than 10.

When using the function with multiple findings and CSUB's, the syntax is a bit more complex.

MAX_VALUE(X,"CSUB",Y,"CSUB",Z,"CSUB")<operator><test value>, where X,Y and Z are all separate findings. Again, for each finding, the number of results returned is only up to whatever value is set in the occurrence count of each finding. In this example, the largest value of all findings evaluated is returned and a comparison is made to the text value.

Example: FI(1) is lab test with occurrence count of 5 with the following values:

100
103
98
96
92

The MAX_VALUE(1,"VALUE")>100 would be TRUE because the largest value returned from the last 5 occurrences is 103. If you did not set the occurrence count field entry, then the result would be FALSE because the largest value would be 100.

As with all functions, the BEGINNING DATE/TIME, ENDING DATE/TIME, CONDITION, USE STATUS/COND IN SEARCH fields could significantly impact your results so pay close attention to these entries.

MAX_VALUE can be also combined with other Function Findings and global variables as below:

```
MAX_VALUE(1,"VALUE")>10&(MRD(1,2)>MRD(4))!(COUNT(6)<3)
MAX_VALUE(1,"VALUE")<4.0&(PXRIMAGE<40)&(PXRSEX="F")
```

CLASS: NATIONAL

MIN_VALUE

The MIN_VALUE function returns the minimum value of *n* number of occurrences of a specific CSUB or multiple CSUB's of a single finding or multiple findings. The CSUB that is being requested must be a numeric value. Any CSUB requested that is not numeric will be treated as having a value of zero. For instance, if you want to know the smallest A1C result a patient has, you can use the MIN_VALUE function.

The syntax of the function is MIN_VALUE(N,"CSUB")<operator><test value> where N is the finding number. In the above example with A1C, assume the A1C is FI(1). The function string would be MIN_VALUE(1,"VALUE"). Note that you have to set the occurrence count on FI(1) to a value other than 1 or you will get the latest (most recent) result. If you wanted to look at the last 20 A1C values and see if the smallest value is greater than 10, you would set the occurrence count to 20 on the finding and then use the string MIN_VALUE(1,"VALUE")>10. The function will be true if the value returned from MIN_VALUE is greater than 10.

When using the function with multiple findings and CSUB's, the syntax is a bit more complex. MIN_VALUE(X,"CSUB",Y,"CSUB",Z,"CSUB")<operator><test value>, where X,Y and Z are all separate findings. Again, for each finding, the number of results returned is only up to whatever value is set in the occurrence count of each finding. In this example, from the smallest value of all findings evaluated is returned and a comparison is made to the text value.

Example: FI(1) is lab test with occurrence count of 5 with the following values:

100
103
98
96

The MIN_VALUE(1,"VALUE")>99 would be FALSE because the smallest value returned from the last 5 occurrences is 92. If you did not set the occurrence count field entry, then the result would be TRUE because the smallest value would be 100.

As with all functions, the BEGINNING DATE/TIME, ENDING DATE/TIME, CONDITION, USE STATUS/COND IN SEARCH fields could significantly impact your results so pay close attention to these entries.

MIN_VALUE can be also combined with other Function Findings and global variables as below:

```
MIN_VALUE(1,"VALUE")>10&(MRD(1,2)>MRD(4)!COUNT(6)<3)
MIN_VALUE(1,"VALUE")<4.0&(PXRIMAGE<40&PXRSEX="F")
```

CLASS: NATIONAL

Status List

Status List is new in Version 2.0. It applies only to finding types that have a status

- Inpatient pharmacy
- Outpatient pharmacy
- Orders
- Problem List
- Radiology
- Reminder Taxonomy
- Reminder Terms

If no Status List is specified, then certain defaults apply:

Finding Type	Default Status
Inpatient Medications	ACTIVE
Orderable Item	ACTIVE, PENDING
Outpatient Medications	ACTIVE, SUSPENDED
Problem List	ACTIVE
Radiology Procedure	COMPLETE

To be true, a finding has to have a status on the list; this is a big change for drug findings because in V.1.5 status was not used for drugs. Your reminders that use drug findings types may work differently in V.2.0 and you may need to make some changes in order for them to work as desired.

Patch 4 Status List Updates

Several changes were made to the status list prompt in the reminder definition and reminder term editor.

- Removed the “delete all” prompt.

- Changed the status list to display the default selection for a finding item if the finding item did not have a status defined.
- Removed the status prompt for Taxonomy containing Problem List entries.
- Set the default prompt for the selection item to Save and Quit.
- No longer displays the entire list of possible statuses if none are defined for the finding item.
- Added multiple selections of statuses when adding to or deleting from the finding item status list.

Default View (This example is for a Radiology Procedure as the Finding Item)

```

Statuses already defined for this finding item:
COMPLETE
    Select one of the following:
        A      ADD STATUS
        D      DELETE A STATUS
        S      SAVE AND QUIT
        Q      QUIT WITHOUT SAVING CHANGES

Enter response: S// ?
Display when adding a status
Enter response: S// a  ADD STATUS
1 - * (Wildcard)
2 - CANCELLED
3 - COM
4 - COMPLETE
5 - EXAMINED
6 - TRANSCRIBED
7 - WAITING FOR EXAM
Select a Radiology Procedure Status or enter '^' to Quit:  (1-7): 2,3,6

Statuses already defined for this finding item:
CANCELLED
COM
COMPLETE
TRANSCRIBED
    Select one of the following:
        A      ADD STATUS
        D      DELETE A STATUS
        S      SAVE AND QUIT
        Q      QUIT WITHOUT SAVING CHANGES

Enter response: S// ?
View when deleting a status
Enter response: S// d  DELETE A STATUS
1 - CANCELLED
2 - COM
3 - COMPLETE
4 - TRANSCRIBED
Select which status to be deleted:  (1-4): 2,4

Statuses already defined for this finding item:
CANCELLED
COMPLETE
    Select one of the following:
        A      ADD STATUS
        D      DELETE A STATUS
        S      SAVE AND QUIT
        Q      QUIT WITHOUT SAVING CHANGES
Enter response: S//

```

Changes to support the use of non-VA meds in Reminders

The field RXTYPE was changed to allow for non-VA meds. The allowed values are now “A” for all, “I” for inpatient, “N” for non-VA, and “O” for outpatient. “A” replaces the previous “B”. During the installation of V.2.0, all “B” values will be changed to “A”. If RXTYPE is null, then it will be treated like an “A”. If RXTYPE includes non-VA meds, they will be searched for automatically, with no changes to the definition or term. This works as follows: Non-VA meds are stored by Pharmacy Orderable item and not by dispense drug; however, a dispense drug entry can have a pointer to the Pharmacy Orderable Item.

If the pointer exists and RXTYPE allows it, then a search for the corresponding non-VA med will be made.

Tip: Here is a tip that will make it work a little bit faster when you are using a Condition to check the status. The status is checked before the Condition is applied so if your status list does not contain the status you are checking for in the Condition the Condition will never be true. So when you are using a Condition set the status list to the wildcard “*”, this makes the status check faster.

Activate/Inactivate Reminders

Use this option to make individual reminders active or inactive.

```
Select Reminder Definition Management Option: RA Activate/Inactivate Reminders
Select REMINDER DEFINITION NAME: ??
  Answer with REMINDER DEFINITION NAME, or REMINDER TYPE, or
    PRINT NAME
Choose from:
  CHOLESTEROL
  LOCAL FOBT
  VA-*BREAST CANCER SCREEN
  VA-*CERVICAL CANCER SCREEN
  VA-*CHOLESTEROL SCREEN (F)
  VA-*CHOLESTEROL SCREEN (M)
  VA-*COLORECTAL CANCER SCREEN (
  VA-*COLORECTAL CANCER SCREEN (
  VA-*FITNESS AND EXERCISE SCREE
  VA-*HYPERTENSION SCREEN
  VA-*INFLUENZA IMMUNIZATION
  VA-*PNEUMOCOCCAL VACCINE
  VA-*PROBLEM DRINKING SCREEN
Select REMINDER DEFINITION NAME: CHOLESTEROL SCREEN (F)
INACTIVE FLAG: ?
  Enter "1" to inactivate the reminder item.
  Choose from:
    1          INACTIVE
INACTIVE FLAG: 1
```

Inactivating a reminder will not remove it from CPRS cover sheet lists or health summaries. However when the cover sheet loads or the health summary is run the reminder will not be evaluated and a message showing the date and time the reminder was inactivated will be displayed.

Reminder Sponsor Management

This option provides the functions for Reminder Sponsor Management.

Syn.	Name	Option Name	Description
SL	List Reminder Sponsors	PXRM SPONSOR LIST	This option is used to get a list of Reminder Sponsors.
SI	Reminder Sponsor Inquiry	PXRM SPONSOR INQUIRY	This option is used to do a reminder sponsor inquiry.
SE	Add/Edit Reminder Sponsor	PXRM SPONSOR EDIT	The option allows for editing of Reminder Sponsors.

List Reminder Sponsors

```
Select Reminder Sponsor Management Option: SL  List Reminder Sponsors
DEVICE:  ANYWHERE      Right Margin: 80//
REMINDER SPONSOR LIST                                JAN 28,2003  10:39    PAGE 1
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Name:  A NEW SPONSOR
Class: VISM

Name:  CRPROVIDER,TWO
Class: VISM

Name:  CRPROVIDER,THREE
Class: LOCAL

Name:  Guidelines committee
Class: LOCAL

Name:  HOSPITAL COMMITTEE
Class: LOCAL

Name:  INFECTIOUS DISEASES PROGRAM OFFICE, VAHQ
Class: NATIONAL

Name:  CRPROVIDER,FOUR
Class: NATIONAL

Name:  Mental Health Group
Class: LOCAL

Name:  Mental Health and Behavioral Science Strategic Group
Class: NATIONAL

Name:  Mental Health and Behavioral Science Strategic Group and Women Veterans
Health Program
Class: NATIONAL

Name:  NEW
Class: LOCAL

Name:  Office of Quality & Performance
Class: NATIONAL

Name:  PJH
```

```
Class: NATIONAL

Name:  QUERI IHD
Class: NATIONAL

Name:  SLC OIFO DEVELOPMENT
Class: NATIONAL

Name:  Women Veterans Health Program
Class: NATIONAL
```

Reminder Sponsor Inquiry

```
Select Reminder Sponsor Management Option: SI  Reminder Sponsor Inquiry
Select Reminder Sponsor: ?
  Answer with REMINDER SPONSOR NAME, or ASSOCIATED SPONSORS
  Do you want the entire REMINDER SPONSOR List? N  (No)
Select Reminder Sponsor: ??

  Choose from:
  Guidelines committee                LOCAL
  HOSPITAL COMMITTEE                  LOCAL
  INFECTIOUS DISEASES PROGRAM OFFICE, VAHQ      NATIONAL
  CRPROVIDER,TEN                      NATIONAL
  Mental Health Group                  LOCAL
  Mental Health and Behavioral Science Strategic Group      NATIONAL
  Office of Quality & Performance        NATIONAL
  QUERI IHD                          NATIONAL
  SLC OIFO DEVELOPMENT                NATIONAL
  Women Veterans Health Program        NATIONAL

Select Reminder Sponsor: Office of Quality & Performance      NATIONAL
DEVICE:  ANYWHERE      Right Margin: 80//
REMINDER SPONSOR INQUIRY                               Jan 28, 2003 10:41:47 am  Page 1
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      NUMBER: 15

Name:  Office of Quality & Performance
Class: NATIONAL

Associated Sponsors:

Select Reminder Sponsor:
```

Add/Edit Reminder Sponsor

```
Select Reminder Sponsor Management Option: SE  Enter/Edit Reminder Sponsor

Select Reminder Sponsor:      Office of Quality & Performance      NATIONAL
You cannot edit National Class Sponsors!

Select Reminder Sponsor: A NEW SPONSOR      VISN
NAME: A NEW SPONSOR//
CLASS: VISN//
Select CONTACT:
Select ASSOCIATED SPONSORS:

Select Reminder Sponsor: ?
```

Reminder Taxonomy Management

The REMINDER TAXONOMY file #811.2 is used to define a set of coded values using ICD Diagnosis codes, ICD Operation/Procedures codes, and CPT codes that can be viewed as being part of a clinical category (taxonomy). Reminder taxonomies provide a convenient way to group coded values and give them a name.) example, the VA-DIABETES taxonomy contains a list of diabetes diagnoses. Options on the Taxonomy Management Menu let you view and edit taxonomy definitions.

Changes in Patch 18 (PXR*2*18)

As a result of Remedy ticket #418968, dialog loading was changed to look for prompts when loading a reminder taxonomy in a dialog. If prompts are defined, then they will display in CPRS instead of the default prompts defined in the reminder finding parameter file. Also, a SUPPRESS ALL PROMPTS prompt was added to the group and element editors. This prompt only shows when a taxonomy is used as a finding item. If the value is set to YES, then no prompts will show in CPRS when using a taxonomy in a dialog.

Changes in Patch 12 (PXR*2*12)

- Automatic taxonomy expansion checking was added as part of taxonomy inquiry.
- New options added to the taxonomy management menu:
 - Verify all taxonomy Expansions (PXR TAXONOMY EXPANSION VERIFY)
Option for verifying the correctness of all taxonomy expansions
 - Expand all Taxonomies (PXR TAXONOMY EXPANSION ALL)
This option can be used to rebuild all taxonomy expansions (Note the user must hold the PXR MANAGER KEY to use this option.)
- As a result of problems reported with taxonomy expansion, listing of UPDATE^DIE error messages in taxonomy expansion was changed to use MES^XPDUTL so errors will be included in the Install file if taxonomy expansion is done as part of a KIDS install. Also the name and IEN of the taxonomy will be listed.
- An error in taxonomy expansion was found and corrected. For CPT codes associated with a radiology procedure the expansion assumed there could only be one radiology procedure per CPT code, which is not the case; the same CPT code can be used with multiple radiology procedures. The expansion was changed to allow for multiple procedures per CPT code.

NOTE: Problem with using CPT codes to find radiology procedures

File #71, RAD/NUC MED PROCEDURES, has a field to associate a CPT code with a radiology procedure. It also has an index, so you can find all the procedures associated with a CPT code. Clinical Reminders has an integration agreement that allows it to read this index. When a taxonomy is expanded, for every CPT code, the radiology index is checked to see if the CPT code is associated with a radiology

procedure. If it is, then the CPT code is stored in a radiology procedure section of the taxonomy expansion.

When a taxonomy is evaluated during reminder or term evaluation, if there are codes in the radiology procedure section of the taxonomy expansion, the patient's radiology data is checked to see if they have any of the procedures associated with the CPT codes. Because Radiology never made any changes to accommodate code set versioning, there are a couple of cases where this can go wrong.

For the first case, consider what happens when a CPT code is inactivated and replaced by a new code. If a site is capturing radiology procedures via CPT codes, they have to start using the new active code; but if the new code has not been mapped to the radiology procedure and the taxonomy expansion rebuilt, then there will never be a match with the new CPT code. Sites are responsible for keeping the radiology procedure CPT code mapping current in file #71, but there is no mechanism to notify them when a CPT code that is mapped to a radiology procedure has been inactivated. Consequently, it is very unlikely that the mapping will be kept up-to-date.

In the second case, because file #71 is structured to allow only one CPT code per procedure, if the mapping was kept up-to-date and an inactivated code was replaced by a new active code, radiology procedures that were done in the past when the old code was still active would never be found.

Until this problem is resolved, using CPT codes to find radiology procedures can be unreliable. At this point the safest thing to do is to use the radiology procedure as a finding.

Changes in Patch 6 (PXR*2*6)

- The following CPT codes: 58290-58294, 58951, 58552-58554 were added to the national taxonomy VA-WH HYSTERECTOMY W/CERVIX REMOVED.

See a later section in this chapter for information about Code Set Versioning (CSV) and related MailMan messages.

Reminder Taxonomy Management Menu

Synonym	Option	Option Name	Description
TL	List Taxonomy Definitions	PXRM TAXONOMY LIST	Use this option to get a summary of all the taxonomies on your system. It shows the name of the taxonomy and the low and high codes for each of the possible code types.
TI	Inquire about Taxonomy Item	PXRM TAXONOMY INQUIRY	This option provides a detailed report of a Taxonomy item's definition, with a list of all the ICD0, ICD9, and CPT codes included in the taxonomy.
TE	Add/Edit Taxonomy Item	PXRM TAXONOMY EDIT	This option is used to edit Reminder Taxonomy Item definitions.
TC	Copy Taxonomy Item	PXRM TAXONOMY COPY	This option allows the user to copy an existing taxonomy definition into a new taxonomy entry. The new taxonomy must have a unique name.
TX	Selected Taxonomy Expansion	PXRM TAXONOMY EXPANSION	This option can be used to selectively rebuild a taxonomy expansion.
TXV	Verify all taxonomy Expansions	PXRM TAXONOMY EXPANSION VERIFY	Option for verifying the correctness of all taxonomy expansions
TXA	Expand all Taxonomies	PXRM TAXONOMY EXPANSION ALL	This option can be used to rebuild all taxonomy expansions

Taxonomy Fields

Dialog taxonomy fields are listed on page [242](#).

NAME	DESCRIPTION
NAME	This is the name of the taxonomy. It must be unique. Nationally distributed taxonomies start with "VA-".
BRIEF DESCRIPTION	This is a brief description of what the taxonomy represents. This may be used to further define the intended use of this taxonomy.
CLASS	This is the class of the entry. Entries whose class is National cannot be edited or created by sites. N NATIONAL V VISN L LOCAL
SPONSOR	This is the name of a group or organization that sponsors the taxonomy.
REVIEW DATE	The review date is used to determine when the entry should be reviewed to verify that it is current with the latest standards and guidelines.
PATIENT DATA SOURCE	Specifies where to search for patient data. It is a string of comma-separated key words.
USE INACTIVE PROBLEMS	Applies only to searches in Problem List. Normally inactive problems are not used. However when this field is set to YES, then both active and inactive problems are used. This field works just like the field with the same name that can be specified for a reminder definition finding or a reminder term finding. If this field is defined in the taxonomy, it will take precedence over the value of the corresponding field at the term or definition level.
INACTIVE FLAG	Enter "1" to inactivate the taxonomy. This flag is set to ACTIVE in the distribution. As part of the installation, each site should review the taxonomy definitions and inactivate those that do not meet the site's needs. If desired, a site can copy a distributed taxonomy, using the taxonomy copy option, to a local version and edit it to meet the site's needs.
ICD0 RANGE OF CODES (multiple)	This multiple is used to define ranges of ICD0 coded values that constitute taxonomy entries. A range is defined by a low and high value that is inclusive. The low and high values are actual codes from the source file, not internal entry numbers.
ICD9 RANGE OF CODES (multiple)	This multiple is used to define ranges of ICD9 coded values that constitute taxonomy entries. A range is defined by a low and high value that is inclusive. The low and high values are actual codes from the source file, not internal entry numbers.
CPT RANGE OF CODES (multiple)	This multiple is used to define ranges of CPT coded values that constitute taxonomy entries. A range is defined by a low and a high value that are inclusive. The low and high values are actual codes from the source file, not internal entry numbers.
EDIT HISTORY	If changes were made, the date and the name of the user making the changes will be inserted automatically. You can optionally type in a description of the changes made during the editing session.
PATIENT DATA SOURCE	Specifies where to search for patient data. It is a string of comma-separated key words. The keywords and their meanings are:

KEYWORD	MEANING
ALL	Search All sources (default)
EN	Search All PCE encounter data (CPT & ICD9)
ENPP	Search PCE encounter data, principal procedure (CPT) only
ENPD	Search PCE encounter data, principal diagnosis (ICD9) only
IN	Search All PTF inpatient data (ICD9 & ICD0)
INDXLS	Search PTF inpatient DXLS diagnosis (ICD9) only
INM	Search in PTF inpatient diagnosis (ICD9) movement only
INPD	Search in PTF inpatient principal diagnosis (ICD9) only
INPR	Search in PTF inpatient procedure (ICD0) only
PL	Search Problem List (ICD9)
RA	Search Radiology (CPT) only

You may use any combination of these keywords. An example is EN,RA. This would cause the search to be made in V CPT and Radiology for CPT codes. If PATIENT DATA SOURCE is left blank, the search is made in all the possible sources. You can also use a “-” to remove a source from the list; for example, IN,-INM.

List Taxonomy Definitions

Use this option to get a summary of all the taxonomies on your system. It shows the name of the taxonomy and the low and high codes for each of the possible code types.

Select Reminder Taxonomy Management Option: TL List Taxonomy Definitions						
DEVICE: <Enter> ANYWHERE Right Margin: 80// <Enter>						
REMINDER TAXONOMY LIST						
NAME	ICD9 RANGE		ICD0 RANGE		CPT RANGE	
	LOW	HIGH	LOW	HIGH	LOW	HIGH

FTEST1	100.9	100.9	99.52	99.52		
PAIN TAXONOMY						
	388.71	388.72			62350	62351
	719.40	719.49			90783	90784
	724.1	724.1				
	789.00	789.09				
	724.2	724.2				
	926.11	926.11				
	724.5	724.5				
PROBTEST 1						
	311.	311.			90724	90724
PROBTEST 2						
	495.2	495.2				
Pain - Lower Back						
	388.71	388.72			62350	62351
	719.40	719.49			90783	90784
	724.1	724.1				
	789.00	789.09				
	724.2	724.2				
	926.11	926.11				
	724.5	724.5				
RADTAX						
					76091	76091
					71030	71030
SL ALCOHOL ABUSE						
	291.0	291.9				
	303.00	303.93				
	305.00	305.03				
	571.0	571.3				
	760.71	760.71				
	790.3	790.3				
	980.0	980.0				
	357.5	357.5				
	425.5	425.5				
	535.3	535.31				
	V11.3	V11.3				

Inquire about Taxonomy Item

Use this option to get the details of a single taxonomy.

Note the new headings for Activation and Inactivation Dates and Selectable; these are a result of the Code Set Versioning project.

```
Select Reminder Taxonomy Management Option: TI Inquire about Taxonomy Item
Select Reminder Taxonomy: VA-PNEUMOCOCCAL VACCINE Pneumococcal vaccine codes
...OK? Yes// <Enter> (Yes)
DEVICE: <Enter> ANYWHERE Right Margin: 80// <Enter>
REMINDER TAXONOMY INQUIRY Jan 13, 2004 10:15:50 am Page 1
-----
```

NUMBER: 25

VA-PNEUMOCOCCAL VACCINE

Brief Description:

Pneumococcal vaccine codes

Class: NATIONAL

Sponsor:

Review Date:

Edit History:

Patient Data Source:

Use Inactive Problems:

ICD9 Codes:

Range V06.6-V06.6 Adjacent Lower-V06.5 Adjacent Higher-V06.8

Code	ICD Diagnosis	Activation	Inactivation	Selectable
----	-----	-----	-----	-----
V06.6	PROPHY VACC STREP PNEU&FLU	10/01/1978		X

ICD0 Codes:

Range 99.55-99.55 Adjacent Lower-99.54 Adjacent Higher-99.56

Code	ICD Operation/Procedure	Activation	Inactivation
----	-----	-----	-----
99.55	VACCINATION NEC	10/01/1978	

Range 99.59-99.59 Adjacent Lower-99.58 Adjacent Higher-99.60

Code	ICD Operation/Procedure	Activation	Inactivation
----	-----	-----	-----
99.59	VACCINATION/INNOCULA NEC	10/01/1978	

CPT Codes:

Range G0009-G0009 Adjacent Lower-G0008 Adjacent Higher-G0010				
Code	CPT Short Name	Activation	Inactivation	Selectable
----	-----	-----	-----	-----
G0009	Admin pneumococcal vaccine	07/01/1995		X
Range 90732-90732 Adjacent Lower-90731 Adjacent Higher-90733				
Code	CPT Short Name	Activation	Inactivation	Selectable
----	-----	-----	-----	-----
90732	PNEUMOCOCCAL VACCINE	06/01/1994		

Add/Edit Taxonomy Item

Use this option to edit a single taxonomy definition.

```
Select Reminder Taxonomy Management Option: TE Add/Edit Taxonomy Item

Select Reminder Taxonomy Item:    SLC DIABETES            SLC DIABETES CODES

General Taxonomy Data
NAME: SLC DIABETES// <Enter>
BRIEF DESCRIPTION: SLC DIABETES CODES// <Enter>

CLASS:    LOCAL
SOURCE:
REVIEW DATE:

PATIENT DATA SOURCE: PL
USE INACTIVE PROBLEMS: <Enter>
INACTIVE FLAG: <Enter>

ICD0 Range of Coded Values
Select ICD0 LOW CODED VALUE: <Enter>

ICD9 Range of Coded Values
Select ICD9 LOW CODED VALUE: 391.8// <Enter>
      ICD9 LOW CODED VALUE: 391.8//<Enter>
      ICD9 HIGH CODED VALUE: 391.8// <Enter>
Select ICD9 LOW CODED VALUE: <Enter>

CPT Range of Coded Values
Select CPT LOW CODED VALUE: 10060// <Enter>
      CPT LOW CODED VALUE: 10060// <Enter>
      CPT HIGH CODED VALUE: 10060// <Enter>
Select CPT LOW CODED VALUE: <Enter>

Select Reminder Taxonomy Item: <Enter>
```

Copy Taxonomy Item

Use this option to copy an existing taxonomy definition into a new entry in the REMINDER TAXONOMY file (#811.2). Once the taxonomy has been copied, you have the option of editing it.

```
Select Reminder Taxonomy Management Option: TC   Copy Taxonomy Item

Select the taxonomy item to copy: VA-ALCOHOL ABUSE      Alcohol abuse codes
PLEASE ENTER A UNIQUE NAME: SL ALCOHOL ABUSE

The original taxonomy VA-ALCOHOL ABUSE has been copied into SL ALCOHOL ABUSE.
Do you want to edit it now? YES

General Taxonomy Data
.
.
.
```

If you choose to edit the taxonomy you've copied, you will see the same prompts as in Edit Taxonomy Item, described on the previous page.

Selected Taxonomy Expansion

When you create a taxonomy, you define the codes in the taxonomy by entering sets of low and high codes. When a taxonomy is used in Clinical Reminders, all the codes in the range defined by the low and high code are “automatically” included. This is done behind the scenes by building an expansion of the taxonomy in the Expanded Taxonomies file #811.3. The expansion is built/rebuilt whenever code ranges are edited. It is also done whenever a code set update is installed.

Reminder evaluation uses the expanded taxonomy so if the expansion gets out of synch with the taxonomy or for some reason does not get correctly rebuilt the results of taxonomy evaluation may be incorrect. Incorrect taxonomy expansion is a very rare event so you may never need to use this option. It was added in version 2.0 so that if a problem with taxonomy expansion is ever encountered there is an easy way for sites to rebuild a taxonomy expansion.

Code Set Versioning Changes

The Health Insurance Portability and Accessibility Act (HIPAA) stipulates that specific code sets used for billing purposes must be versioned based on the date of service. Those code sets must be applicable at the time the service is provided. Clinical Reminders was required to make changes to ensure that users would be able to select codes based upon a date that an event occurred with the Standards Development Organization (SDO)-established specific code and translation that existed on an event date. Clinical Reminders has been modified so that Clinical Application Coordinators (CACs) can identify ranges of codes where the adjacent values have changed because of a code set versioning update. A new option and several wording and format changes appear in taxonomy and dialog options.

After Version 2.0 of Clinical Reminders is installed, you may start receiving mail messages about taxonomy/code updates and Reminder Dialog CPT Code changes. Those individuals assigned to the Reminders mail group at your site will receive the messages. These updates normally occur quarterly, so you shouldn't receive these continuously. When you receive the messages, review them to see what action should be taken, if any. You may need to change the taxonomy low or high-coded values. It may

be appropriate to retain inactive codes for some reminders and dialogs; for example, Pneumovaxes, which are only given once in a lifetime.

Example CSV Messages:

```
Subj: Reminder Dialog ICPT Code changes  [#17926] 04/10/03@14:42  33 lines
From: POSTMASTER (Sender: CRPROVIDER,ONE)  In 'IN' basket.    Page 1  *New*
```

New Code Set Post Installation Processing
Clinical Reminder Post Installation Processing for
Reminder Dialog file (801.41) Finding Items - ICPT Changes.

Please review the FINDING ITEM and ADDITIONAL FINDING Items changes currently used by REMINDER DIALOGS that need changes before the EFFECTIVE DATE. If the changes are not made, the FINDING ITEM will not be used in CPRS GUI processing once the effective date has passed.

Consider adding another ADDITIONAL FINDING Items to the reminder dialog entry, which will be active after the FINDING ITEM code status effective date makes the current FINDING ITEM inactive. This will allow the dialog to have old and new codes to be associated with a dialog element, and only use the one effective for the encounter date. Eventually, the inactive FINDING ITEM or ADDITIONAL FINDING Items should be removed from the dialog element.

Make changes using the Reminder Dialog Management [PXRMDIALOG MANAGEMENT] option.

Note: FI=FINDING ITEM field AFI=ADDITIONAL FINDING ITEMS field
Note: [finding type] (status)

Report Data to Follow:

ICPT FI: A9160 Podiatrist non-covered servi (Inactive 4/1/02 Past)
Found in: CODE SET ELEMENT [dialog element] (Enabled)
Used by: CODE SET TEST [reminder dialog] (Enabled)

ICPT AFI: A0215 AMBULANCE SERVICE, MISCELLAN (Inactive 7/1/95 Past)
Found in: CODE SET ELEMENT [dialog element] (Enabled)
Used by: CODE SET TEST [reminder dialog] (Enabled)

Enter message action (in IN basket): Ignore//

```
Subj: Taxonomy updates due to new CPT global installation.  [#17925]
04/10/03@14:42  174 lines
From: POSTMASTER (Sender: CRPROVIDER,ONE)  In 'IN' basket.    Page 1
```

There was a CPT code set update on 04/10/2003.
This could affect adjacent codes and/or taxonomy expansions.
Detailed information for affected taxonomies follows.

Taxonomy: VA-FLEXISIGMOIDOSCOPY = TX(15)
Selectable CPT code 45336 is inactive.
Selectable CPT code 45360 is inactive.
Selectable CPT code 45365 is inactive.
Selectable CPT code 45367 is inactive.
Selectable CPT code 45368 is inactive.
Selectable CPT code 45369 is inactive.
Selectable CPT code 45370 is inactive.
Selectable CPT code 45372 is inactive.

Taxonomy: VA-MASTECTOMY = TX(19)
Selectable CPT code T1950 is inactive.
Selectable CPT code T1951 is inactive.
Selectable CPT code T1952 is inactive.
Selectable CPT code T1953 is inactive.
Selectable CPT code T1954 is inactive.
Selectable CPT code T1955 is inactive.
Selectable CPT code T1956 is inactive.
Selectable CPT code T1957 is inactive.
Selectable CPT code T1958 is inactive.
Selectable CPT code T1959 is inactive.
Selectable CPT code T1960 is inactive.
Selectable CPT code T1961 is inactive.
Selectable CPT code T1962 is inactive.
Selectable CPT code T1963 is inactive.
Selectable CPT code T1964 is inactive.
Selectable CPT code T1965 is inactive.
Selectable CPT code T1966 is inactive.
Selectable CPT code T1967 is inactive.
Selectable CPT code T1968 is inactive.
Selectable CPT code T1969 is inactive.
Selectable CPT code T1970 is inactive.
Selectable CPT code T1971 is inactive.
Selectable CPT code T1972 is inactive.
Selectable CPT code T1973 is inactive.
Selectable CPT code T1975 is inactive.
Selectable CPT code T1976 is inactive.

Taxonomy: VA-OBESITY = TX(20)
Selectable CPT code 44131 is inactive.

Taxonomy: VA-HYPERTENSION SCREEN = TX(23)
Selectable CPT code 80060 is inactive.

Taxonomy: VA-CHOLESTEROL = TX(24)
Selectable CPT code 82470 is inactive.
Selectable CPT code 83700 is inactive.
Selectable CPT code 83705 is inactive.
Selectable CPT code 83720 is inactive.
Selectable CPT code G0054 is inactive.

Taxonomy: VA-TETANUS DIPHTHERIA = TX(29)
Selectable CPT code 90711 is inactive.

Taxonomy: VA-CERVICAL CANCER SCREEN = TX(30)
Selectable CPT code Q0060 is inactive.
Selectable CPT code Q0061 is inactive.

Taxonomy: VA-INFLUENZA IMMUNIZATION = TX(33)
Selectable CPT code 90724 is inactive.
Selectable CPT code Q0034 is inactive.

Taxonomy: CSTEEST = TX(41)
Adjacent codes have changed for the range defined by:
Low code C2805-Jewel AF 7250 Defib
High code C2807-Contak CD 1823
Old adjacent lower code C2803-Ventak Prizm DR HE Defib
New adjacent lower code C2804-Ventak Prizm 2 DR Defib
Old adjacent higher code C2808-Contak TR 1241
New adjacent higher code C3001-Kainox SL/RV defib lead

Adjacent codes have changed for the range defined by:

Low code C2805-Jewel AF 7250 Defib
 High code C2807-Contak CD 1823
 Old adjacent lower code C2803-Ventak Prizm DR HE Defib
 New adjacent lower code C2804-Ventak Prizm 2 DR Defib
 Old adjacent higher code C2808-Contak TR 1241
 New adjacent higher code C3001-Kainox SL/RV defib lead

Adjacent codes have changed for the range defined by:
 Low code C2805-Jewel AF 7250 Defib
 High code C2807-Contak CD 1823
 Old adjacent lower code C2803-Ventak Prizm DR HE Defib
 New adjacent lower code C2804-Ventak Prizm 2 DR Defib
 Old adjacent higher code C2808-Contak TR 1241
 New adjacent higher code C3001-Kainox SL/RV defib lead

Adjacent codes have changed for the range defined by:
 Low code C2805-Jewel AF 7250 Defib
 High code C2807-Contak CD 1823
 Old adjacent lower code C2803-Ventak Prizm DR HE Defib
 New adjacent lower code C2804-Ventak Prizm 2 DR Defib
 Old adjacent higher code C2808-Contak TR 1241
 New adjacent higher code C3001-Kainox SL/RV defib lead

The following are new CPT codes in the expansion for this taxonomy:
 C2804-Ventak Prizm 2 DR Defib
 C2805-Jewel AF 7250 Defib
 C2808-Contak TR 1241

Selectable CPT code C2804 is inactive.
 Selectable CPT code C2805 is inactive.
 Selectable CPT code C2806 is inactive.
 Selectable CPT code C2807 is inactive.
 Selectable CPT code C2808 is inactive.

Taxonomy: VA-PSYCHOTHERAPY CPT CODES = TX(50)
 Adjacent codes have changed for the range defined by:
 Low code C2805-Jewel AF 7250 Defib
 High code C2807-Contak CD 1823
 Old adjacent lower code C2803-Ventak Prizm DR HE Defib
 New adjacent lower code C2804-Ventak Prizm 2 DR Defib
 Old adjacent higher code C2808-Contak TR 1241
 New adjacent higher code C3001-Kainox SL/RV defib lead

Adjacent codes have changed for the range defined by:
 Low code C2805-Jewel AF 7250 Defib
 High code C2807-Contak CD 1823
 Old adjacent lower code C2803-Ventak Prizm DR HE Defib
 New adjacent lower code C2804-Ventak Prizm 2 DR Defib
 Old adjacent higher code C2808-Contak TR 1241
 New adjacent higher code C3001-Kainox SL/RV defib lead

Adjacent codes have changed for the range defined by:
 Low code C2805-Jewel AF 7250 Defib
 High code C2807-Contak CD 1823
 Old adjacent lower code C2803-Ventak Prizm DR HE Defib
 New adjacent lower code C2804-Ventak Prizm 2 DR Defib
 Old adjacent higher code C2808-Contak TR 1241
 New adjacent higher code C3001-Kainox SL/RV defib lead

Adjacent codes have changed for the range defined by:
 Low code C2805-Jewel AF 7250 Defib
 High code C2807-Contak CD 1823
 Old adjacent lower code C2803-Ventak Prizm DR HE Defib

```

New adjacent lower code C2804-Ventak Prizm 2 DR Defib
Old adjacent higher code C2808-Contak TR 1241
New adjacent higher code C3001-Kainox SL/RV defib lead

Adjacent codes have changed for the range defined by:
Low code C2805-Jewel AF 7250 Defib
High code C2807-Contak CD 1823
Old adjacent lower code C2803-Ventak Prizm DR HE Defib
New adjacent lower code C2804-Ventak Prizm 2 DR Defib
Old adjacent higher code C2808-Contak TR 1241
New adjacent higher code C3001-Kainox SL/RV defib lead

The following are new CPT codes in the expansion for this taxonomy:
C2804-Ventak Prizm 2 DR Defib
C2805-Jewel AF 7250 Defib
C2808-Contak TR 1241

Taxonomy: SLC-Ear Mites = TX(660001)
Selectable CPT code 69221 is inactive.

Taxonomy: PROBTTEST 1 = TX(660006)
Selectable CPT code 90724 is inactive.

Subj: Reminder Dialog ICD9 AND CPT Code changes  [#14085] 05/20/03@10:48
6 lines
From: POSTMASTER (Sender: CRPROVIDER,ONE) In 'IN' basket. Page 1 *New*
-----
Report of Inactive ICD9 and CPT Codes referenced in the Reminder
Dialog file.

Note: FI=FINDING ITEM field AFI=ADDITIONAL FINDING ITEMS field
Note: [finding type] (status)

```

When you examine these CSV messages, you will notice that they point out inactive codes that are being used in reminder dialogs and taxonomies. A change was made in the way dialogs are processed for Code Set Versioning. This change made it so that the user can only select codes that are active on the encounter date. For historical entries the user may select a code that is currently inactive, but was active on the date of the historical encounter. In practical terms, this means that you may want to leave codes that have been recently inactivated in the dialog, but remove codes that were inactivated some time ago.

Taxonomies are another matter; even though a code has been inactivated, it probably should still be left in the taxonomy, because you will still want to be able to find any patients that were given the code in the past when it was active. If a code is a selectable code for a taxonomy dialog, you may want to remove it from the taxonomy dialog if it is still being used.

NOTE: Even though an inactive code is still in the list of selectable codes, it is not present in the taxonomy dialog, because the GUI code uses the encounter date to display only active codes for the encounter date.

Another thing these messages point out is any adjacent codes that have changed. By adjacent codes, we mean the code that comes immediately before the low code and immediately after the high code. If either of these adjacent codes has changed, then you should review the taxonomy to see if the range of codes needs to be changed.

MailMan messages that notify you about inactive codes in taxonomies and dialogs

When Clinical Reminders V.1.5 was released in June of 2000, it introduced the reminder dialog functionality. The installation process generated lists of selectable diagnoses and selectable procedures for each taxonomy that was on the system at the time of the installation. These lists included all the codes in the taxonomy that were active on the date of the install. Any site taxonomies that were created after the installation of V.1.5 do not have a selectable list until the first time a taxonomy dialog for that taxonomy is edited/created. The first time the taxonomy dialog is edited/created, the selectable lists are built from all the currently active codes in the taxonomy. It is important to note that once these lists are generated, they are not automatically updated when the taxonomy is edited. The only way to change them is through the taxonomy dialog editing option.

The code set versioning changes that were made to reminder dialogs insure that a code that is inactive on the date of the encounter cannot be used. Therefore, inactive codes that are on selectable lists will not cause any problems.

Another code set versioning change that was made causes a check of all the codes used in reminder taxonomies and reminder dialogs whenever a Lexicon patch that updates a code set is installed. That is what creates the MailMan messages that notify you about inactive codes in taxonomies and dialogs. These messages are informational; as noted above, inactive codes will not cause problems, but at some point you may want to remove inactive codes.

Reminder Term Management

A reminder term provides a way to group findings under a single name, just as a taxonomy lets you group a set of codes under a single name. Each term has a findings multiple that is just like the findings multiple in the reminder definition. When you add findings to this multiple, we call it “mapping” the term. All the findings that are mapped to the term should represent the same concept. The list of possible findings in a term is the same as in a definition, except that a term cannot have another term as a finding.

When a term is evaluated, the entire list of findings is evaluated and the most recent finding is used for the value of the term. If the most recent finding is false (which could happen as a result of a Condition), then the term is false.

A term’s Class can be:

- National (N)
- VISN (V)
- Local (L)

These options are necessary for national guidelines/reporting. The Reminder Term functionality allows you to map local or VISN-level findings to national terms.

Correction made in Patch 18

During the testing of PXR*2.0*17, a test site noticed a problem with the output for drug classes in a term. The drug class the drug belonged to was not being displayed as it is when a drug class is used directly as a finding in a reminder definition. Code was added to display the drug class or VA Generic so that the output is similar to when drug classes or VA Generics are used directly as findings in a definition.

Change in Patch 12

- A hint was added on how to add a second occurrence of a finding. The hint will be displayed when a double question mark is typed when editing the findings in a definition or a term.

Changes in Patch 4

- When editing a term, if the term has a sponsor, a check is made to ensure that the class of the term and the class of the sponsor are the same; if not, then the user is prompted again for the class and sponsor until the classes match. There was a bug where even if the class of the term and the class of the sponsor were the same, it was saying they did not match. This bug was corrected.
- Term edit was changed so that the user cannot “^” out when the Class of the term and Class of the sponsor do not match.
- A change was made so that if a term contains only drugs or orderable items, the field USE START DATE can be edited. Note that USE START DATE is available in both definitions and terms for all drug findings and orderable items.
- A new national term, VA-PCMM INSTITUTION, was created to be used as a finding rule. It serves the same function as VA-IHD STATION CODE, but its name makes it easier to understand its

function. Whenever a finding rule using either of these terms is included in a rule set with the Insert operation, the patient's PCMM Institution will be included with the patient list. The PCMM Institution is determined by first finding the Institution (file #4) entry for the patient's PCMM Team. If the Institution cannot be determined, the word NONE will be displayed.

- A site entered a Remedy ticket about a reminder not evaluating as expected. The finding in question was a term, so the debugger was used to see the details of how the term evaluated and it was found that everything was correct. Since the average Clinical Reminder Manager does not have programmer access, they cannot use the debugger to determine what is happening with a term. Therefore, an option was added to Reminder Test to show how all the findings for a term evaluated.
- The term finding modifier editing sequence was rearranged so it matches the sequence for definitions and term inquiry.
- In V.2.0, a change was made so that for terms used as findings in national reminders, the user could select a term and edit the findings on the term. This change introduced a bug that allowed the user to edit any of the findings in the reminder. The bug was corrected.
- The cross-reference on term findings for building the "enode" was never updated to the new form that was developed in V.2.0. (The enode is used for processing the term's findings.) This resulted in the enode not being built correctly for non-CH lab findings; other finding types were not affected. This was corrected. A section was added to the post-init to make sure all the definition and term lab enodes are set correctly.
- The computed finding parameter in reminder terms was not allowing the "^" character. This was fixed.
- There was a bug in term output when multiple occurrences of the same type of mapped finding were found. For example, if three occurrences were found, it would write three sets of output:

```
Line 1
Line 1
Line 2

Line 1
Line 2
Line 3
```

This was corrected.

Reminder Term Management Options

Synonym	Option	Option Name	Description
TL	List Reminder Terms	PXRM TERM LIST	This option allows a user to display a list of reminder terms that have been defined.
TI	Inquire about Reminder Term	PXRM TERM INQUIRY	This option allows a user to display the contents of a reminder term in an easy-to-read format.
TE	Add/ Edit Reminder Term	PXRM TERM EDIT	This option is used to edit reminder terms. NOTE: Name the reminder terms using all

Synonym	Option	Option Name	Description
			capital letters because the names are case-sensitive.
TC	Copy Reminder Term	PXRM TERM COPY	This option allows a user to copy an existing reminder term into a new one. The new term must have a unique name.

List Reminder Terms

This option is used to give a brief listing of reminder terms.

```

Select Reminder Term Management Option: TL   List Reminder Terms
DEVICE:  ANYWHERE      Right Margin: 80//
REMINDER TERM LIST                               SEP 16,2003  14:17    PAGE 1
-----

ACUTE MEDICAL CONDITION
  Class:      NATIONAL
  Date Created:
  Sponsor:
  Review Date:
  Description:  Screening for depression may not be possible in patients
                with acute medical conditions.  This term represents any
                data element that is used to indicate that the patient has
                an acute medical condition that prevents screening for
                depression.  E.g. delirium, alcohol hallucinosis, florid
                psychosis, MI's and other medical emergencies.
  Findings:    UNABLE TO SCREEN-ACUTE MED CONDITION (FI(1)=HF(107))

AIM EVALUATION NEGATIVE
  Class:      NATIONAL
  Date Created:
  Sponsor:
  Review Date:
  Description:  Represents any AIM evaluation that is negative or normal.
  Findings:    AIMS (FI(2)=MH(234))

AIM EVALUATION POSITIVE
  Class:      NATIONAL
  Date Created:
  Sponsor:
  Review Date:
  Description:  Represents any AIM evaluation that is positive or scored
                above the cutoff defined as abnormal.  (AIMS greater than
                or equal to 7)
  Findings:    AIMS (FI(2)=MH(234))

ALANINE AMINO (ALT) (SGPT)
  Class:      NATIONAL
  Date Created:  MAY 21,2000
  Sponsor:    INFECTIOUS DISEASES PROGRAM OFFICE, VAHQ
  Review Date:
  Description:  This term represents serum glutamic-pyruvic transaminase
                or ALT laboratory tests. Enter the finding items from the
                Laboratory Test file (#60) that represent the SGPT test.

                National terms related to this term.

```

WKLD CODE file (#64): The national lab test term is
Transferase Alanine Amino SGPT.

CPT File (#81) procedure:

CPT code: 84460 SHORT NAME: ALANINE AMINO (ALT) (SGPT)
CPT CATEGORY: CHEMISTRY SOURCE: CPT
EFFECTIVE DATE: JUN 01, 1994 STATUS: ACTIVE

List Reminder Terms, cont'd

DESCRIPTION: TRANSFERASE;
DESCRIPTION: ALANINE AMINO (ALT) (SGPT)

Lexicon: The CPT code is in the Lexicon term as a
Laboratory Procedure term.

Findings:

ANTIDEPRESSANT MEDICATIONS

Class: NATIONAL
Date Created: DEC 28,2000
Sponsor:
Review Date:
Description:
Findings: CN600 (FI(1)=DC(86))
 CN609 (FI(2)=DC(395))
 CN602 (FI(3)=DC(88))
 CN601 (FI(4)=DC(87))
 BUSPIRONE (FI(5)=DG(1165))

Inquire about Reminder Term

This option lets you display the contents of a reminder term in an easy-to-read format.

Select Reminder Term Management Option: TI Inquire about Reminder Term

Select Reminder Term: IHD DIAGNOSIS NATIONAL

...OK? Yes// (Yes)

DEVICE: ANYWHERE Right Margin: 80//

REMINDER TERM INQUIRY Jul 03, 2003 11:06:58 am Page 1

IHD DIAGNOSIS

No.27

Class: NATIONAL
Sponsor: Office of Quality & Performance
Date Created: JUL 23,2001
Review Date:

Description:

This term represents patients diagnosed with Ischemic Heart Disease
(IHD).

This term is distributed pre-mapped to the VA-ISCHEMIC HEART DISEASE
taxonomy. The Active Problem list, Inpatient Primary Diagnosis and
Outpatient Encounter Diagnosis are used to search for IHD ICD9 diagnoses.

Edit History:

Edit Date: JAN 18,2002 16:03

Edit By: CRPROVIDER,ONE

Edit Comments: Exchange Install

Findings:

Finding Item: VA-ISCHEMIC HEART DISEASE (FI(1)=TX(14))
Finding Type: REMINDER TAXONOMY
Use Inactive Problems: NO

Add/Edit Reminder Term

You can edit terms or add new ones with this option. If the term is National, you can enter new Findings Items, but can't edit other fields. You can edit any fields for VISN or Local terms.

NOTE: Dates, Conditions, and other data entered for Reminder Terms take precedence over the same data entered in Reminder Definitions.

NOTE: USE COND IN FINDING SEARCH has been changed to USE STATUS/COND IN SEARCH. Give this field a value of "YES" if you want the STATUS LIST and/or CONDITION applied to each result found in the date range for this finding. Only results that have a status on the list or for which the CONDITION is true will be retained. The maximum number to retain is specified by the OCCURRENCE COUNT.

If the finding has both a STATUS LIST and a CONDITION, the status check will be made first; the CONDITION will be applied only if the finding passes the status check.

Reminder Term Edit Example

Mapping the local finding, HEPATITIS B SURFACE ANTIBODY, to the National term, HBs

Select Reminder Term: **HBs**

- 1 HBs Ab positive NATIONAL
- 2 HBs Ag positive NATIONAL

CHOOSE 1-2: 1 HBs Ab positive NATIONAL

Select Finding: **HEPATITIS B SURFACE ANTIBODY**

FINDING ITEM: HEPATITIS B SURFACE ANTIBODY// <Enter>

This is where you enter the local finding name.

BEGINNING DATE/TIME: <Enter>

ENDING DATE/TIME: <Enter>

OCCURRENCE COUNT: ??

This is the maximum number of occurrences of the finding to return.

OCCURRENCE COUNT: 3

CONDITION: I (V["POS"])! (V="+")

CONDITION CASE SENSITIVE: <Enter>

USE STATUS/COND IN SEARCH: ?

Enter a "Yes" if you want the Status List and/or Condition used in the finding search.

Choose from:

- 1 YES
- 0 NO

USE STATUS/COND IN SEARCH: Yes

Choose from:

IM HEPATITIS B

Finding #: 1

Select Finding: <Enter>

```
Input your edit comments.  
Edit? NO// <Enter>  
  
Select Reminder Term: <Enter>
```

NOTE: In most cases, a finding modifier on a term takes precedence over the modifier in the definition. An exception to this is the Occurrence Count. The reason for this can be understood by looking at an example. Let's say a term has been mapped to three findings with an Occurrence Count of 1 for finding 1, 2 for finding 2, and 3 for finding 3. If the maximum number of occurrences is found for each finding, then how do you determine how many occurrences to display? In this case, we would have 6 occurrences, so we have the possibility of displaying anywhere between 1 and 6 of them. The solution is to display the number of occurrences specified at the definition level.

Copy Reminder Term

This option lets you copy an existing reminder term into a new one. The new term must have a unique name.

```
Select Reminder Term Management Option: TC Copy Reminder Term  
Select the reminder term to copy: EDUTERM  
Reminder term to copy: EDUTERM  
...OK? Yes// <Enter> (Yes)  
PLEASE ENTER A UNIQUE NAME: SLC EDUTERM  
The original reminder term EDUTERM has been copied into SLC EDUTERM.  
Do you want to edit it now? YES  
NAME: SLC EDUTERM// <Enter>  
.
```

If you choose to edit the copied term, the sequence of prompts is the same as those shown under Reminder Term Edit, shown on the previous pages.

Reminder Location List Management

Location Lists are a new finding type introduced in version 2.0. They provide a way to give a name to a list of locations just as a Taxonomy provides a way to give a name to a list of codes.

When a Location List finding is evaluated, a search is made for a Visit (an entry in the Visit file #9000010) at one of the locations on the list in the specified date range (BEGINNING DATE/TIME, ENDING DATE/TIME).

A Location List is built from two types of entries: Hospital Location, file #44 and Clinic Stop, file #40.7. There is a multiple for Hospital Locations and a multiple for Clinic Stops in the Location List file, so when you build a list of locations, you can use Hospital Locations and/or Clinic Stops.

Clinic Stops are ultimately resolvable to a list of Hospital Locations, so when the search is done, it is all based on the Hospital Location recorded for the Visit. There is a CREDIT STOP (field #2503) associated with each Hospital Location. If there are certain Credit Stops that you want to exclude from the list of Hospital Locations associated with a Clinic Stop, then you put these in the CREDIT STOP TO EXCLUDE multiple for each Clinic Stop in the Location List.

Examples:

a) A Location List for primary care clinics can be created that searches for clinics with stop code 323 and excludes any 323 clinic associated with credit stop 710 (Flu shot only).

b) A Location List for Cardiology clinics can be created that searches for clinics with stop code 303 and excludes any 303 clinic associated with credit stop 450 (used for a clinic dedicated to compensation and pension examination).

National Location Lists

VA-*LOCATION LIST EMERGENCY
VA-*LOCATION LIST NEXUS MENTAL HEALTH CLINICS
VA-*LOCATION LIST NEXUS PRIMARY CARE CLINICS
VA-ALL LOCATIONS
VA-IHD QUERI CLINIC STOPS
VA-MH QUERI MH CLINIC STOPS
VA-MH QUERI PC CLINIC STOPS

Changes in Patch 18

Using a non-existent location list was causing a hard error during reminder evaluation. A change was made so that this will generate an evaluation status of ERROR instead of causing a hard error. Also, a MailMan message will be sent to the Clinical Reminders group. The message has the following format:

The Computed finding evaluation requested by XXXX,YYY on
MMM DD, YYYY@HH:MM:SS requires appointment data which could not be obtained
from the Scheduling database due to the following error(s):
INVALID INPUT ARRAY ENTRY

Changes in Patch 12

- If a Location List had a value in the field CREDIT STOPS TO EXCLUDE (LIST), the Location List referenced by this field was not automatically being packed-up. The packing routine was changed so it will be automatically be included.
- There is a FileMan bug that under certain conditions causes problems by generating extraneous nodes when a Clinic Stop is deleted. The cross-references on CLINIC STOP and CREDIT STOP TO EXCLUDE were modified to pass the node and the set and kill code checks the node so the sets and kills are done correctly. Code was added to the post-init to clean up any bad nodes that may already exist.

Changes in Patch 6

- A new option, Copy Location List, was added. Timing data was added to the Location List Management Menu.

Reminder Location List Menu

This menu provides options for creating and editing Reminder Location Lists.

Syn.	Name	Option Name	Description
LL	List Location Lists	PXRM LOCATION LIST LIST	This option is used to get a list of Location Lists.
LI	Location List Inquiry	PXRM LOCATION LIST INQUIRY	This option is used to do a Location List inquiry.
LE	Add/Edit Location List	PXRM LOCATION LIST EDIT	This option allows creation and editing of Location Lists
LC	Copy Location List	PXRM LOCATION LIST COPY	This option allows the user to copy an existing location list into a new location list; file #810.9. The original location list to be copied is selected first. If the original location list is prefixed with "VA-", the "VA-" will be stripped off the name automatically to create the name for the new location list entry. The new name must be unique. If the new name is not unique, the user must enter a unique name for the new location list entry. If no name is provided, the new entry will not be created. Once a new name is defined for the new location list entry, the new location list entry can be edited to reflect the local location list definition.

List Location Lists

This option is used to get a list of Location Lists.

```
Select Reminder Location List Management Option: 11 List Location Lists
DEVICE: ;;999 ANYWHERE Right Margin: 80//
REMINDER LOCATION LIST LIST SEP 16,2003 14:08 PAGE 1

                                AMIS
                                REPORTING
CLINIC STOP                     STOP CODE
HOSPITAL LOCATION

-----

Name: TEST LOCATION LIST
Class: LOCAL

Clinic Stops:

Hospital Locations:
  CARDIOLOGY
  PULMONARY CLINIC
  OR 1
Name: VA-IHD QUERI CLINIC STOPS
Class: NATIONAL

Clinic Stops:
  GENERAL INTERNAL MEDICINE      301
  CARDIOLOGY                    303
  ENDO./METAB (EXCEPT DIABETES) 305
  DIABETES                      306
  HYPERTENSION                  309
  PULMONARY/CHEST               312
  PRIMARY CARE/MEDICINE         323
  GERIATRIC PRIMARY CARE        350
  MENTAL HEALTH CLINIC - IND    502
  WOMEN'S CLINIC                322

Hospital Locations:
Name: VA-MH QUERI MH CLINIC STOPS
Class: NATIONAL

Clinic Stops:
  MENTAL HEALTH CLINIC - IND    502

Hospital Locations:
Name: VA-MH QUERI PC CLINIC STOPS
Class: NATIONAL

Clinic Stops:
  GENERAL INTERNAL MEDICINE      301
  CARDIOLOGY                    303
  WOMEN'S CLINIC                322
  ENDO./METAB (EXCEPT DIABETES) 305
  PRIMARY CARE/MEDICINE         323
  DIABETES                      306
  HYPERTENSION                  309
  PULMONARY/CHEST               312
  MH PRIMARY CARE TEAM - IND    531

Hospital Locations:
Name: jg-list
```

Class: LOCAL

Clinic Stops:

ALCOHOL SCREENING	706
ALCOHOL TREATMENT	81

Hospital Locations:

8W SUBSTANCE ABUSE

Name: new location list

Class: LOCAL

Clinic Stops:

CARDIOLOGY	29
------------	----

Hospital Locations:

Location List Inquiry

Select Reminder Location List Management Option: li Location List Inquiry

Select LOCATION LIST: VA-ALL LOCATIONS NATIONAL

DEVICE: HOME

REMINDER LOCATION LIST INQUIRY Jul 03, 2006 10:25:59 am Page 1

NUMBER: 20

Name: VA-ALL LOCATIONS

Description: When this special Location List is used the "AHL" index of the Visit file is searched to create a list of every hospital location for which one or more visits have been recorded.

Class: NATIONAL

Sponsor:

Review Date:

Edit History:

Clinic Stops:

Hospital Locations:

Add/Edit Location List

Select Reminder Location List Management Option: le Add/Edit Location List

Select Location List: **TEST** LOCATION LIST LOCAL

NAME: TEST LOCATION LIST// **<Enter>**

CLASS: LOCAL// **<Enter>**

DESCRIPTION:

1>test list

EDIT? No//: **<Enter>**

Select CLINIC STOP: CARDIOLOGY// **<Enter>**

Select CREDIT STOP TO EXCLUDE: ALCOHOL SCREENING
//**<Enter>**

Select CLINIC STOP: **<Enter>**

Select HOSPITAL LOCATION: OR 1// **<Enter>**

Select Location List: **<Enter>**

Create a new Location List

Use Add/Edit Location List to create a new list. You can set up a list of reminders associated with a particular location.

Select Reminder Location List Management Option: **1e** Add/Edit Location List

Select Location List: **yg-list**

Are you adding 'yg-list' as a new REMINDER LOCATION LIST (the 6TH)? No// **y**
(Yes)

REMINDER LOCATION LIST CLASS: **1** LOCAL

NAME: yg-list// **<Enter>**

CLASS: LOCAL//**<Enter>**

DESCRIPTION:

No existing text

Edit? NO// **<Enter>**

Select CLINIC STOP: **?**

You may enter a new CLINIC STOP LIST, if you wish
Enter a clinic stop code

Answer with CLINIC STOP NAME, or AMIS REPORTING STOP CODE

Do you want the entire 405-Entry CLINIC STOP List

^

Select CLINIC STOP: **alcohol screening** 706

Are you adding 'ALCOHOL SCREENING' as
a new CLINIC STOP LIST (the 1ST for this REMINDER LOCATION LIST)? No// **y**
(Yes)

Select CREDIT STOP TO EXCLUDE: **<Enter>**

Select CLINIC STOP: **alcohol tr**

1	ALCOHOL TREATMENT	81
2	ALCOHOL TREATMENT-GROUP	556
3	ALCOHOL TREATMENT-INDIVIDUAL	508

CHOOSE 1-3: **1** ALCOHOL TREATMENT 81

Are you adding 'ALCOHOL TREATMENT' as
a new CLINIC STOP LIST (the 2ND for this REMINDER LOCATION LIST)? No// **y**
(Yes)

Select CREDIT STOP TO EXCLUDE: **<Enter>**

Select CLINIC STOP: **<Enter>**

Select HOSPITAL LOCATION: **?**

You may enter a new HOSPITAL LOCATION LIST, if you wish
Enter a hospital location

Answer with HOSPITAL LOCATION NAME, or ABBREVIATION, or

STOP CODE NUMBER, or CREDIT STOP CODE, or TEAM

Do you want the entire 50-Entry HOSPITAL LOCATION List? **NO**

Select HOSPITAL LOCATION: **8w SUBSTANCE ABUSE**

Are you adding '8W SUBSTANCE ABUSE' as
a new HOSPITAL LOCATION LIST (the 1ST for this REMINDER LOCATION LIST)? No//**y**
(Yes)

Select HOSPITAL LOCATION: **<Enter>**

Copy Location List

```
Select Reminder Location List Management Option: LC  Copy Location List

Select the reminder location list to copy: CR-LOCATION LIST NEXUS MENTAL HEALTH
CLINICS          LOCAL
PLEASE ENTER A UNIQUE NAME: NEXUS MENTAL HEALTH CLINICS

The original location list CR-LOCATION LIST NEXUS MENTAL HEALTH CLINICS has been
copied into NEXUS MENTAL HEALTH CLINICS.
Do you want to edit it now? YES
NAME: NEXUS MENTAL HEALTH CLINICS  Replace

CLASS: LOCAL//
SPONSOR:

REVIEW DATE:
DESCRIPTION:
This location list are the NEXUS Mental Health Clinics.  This list does
not include the original 11 clinics (actually 13) used for EPRP.

    Edit? NO//
Select CLINIC STOP: PTSD DAY TREATMENT//
    CLINIC STOP: PTSD DAY TREATMENT//
    Select CREDIT STOP TO EXCLUDE:
Select CLINIC STOP:
Select HOSPITAL LOCATION:
```

Reminder Exchange

The Clinical Reminders Exchange Utility provides a mechanism for sharing reminder definitions and dialogs among sites throughout the VA or among sites within a VISN. Exchanging reminders helps to simplify reminder and dialog creation. It also helps to promote standardization of reminders based on local, VISN-wide, and national guidelines.

An effective way to use the Exchange Utility is through VISN web sites. You can put a set of “packed reminders” into a host file, and the host file can be posted on a web site for download. Once the host file is on the site’s system, the Exchange Utility can load the host file into the site’s Exchange File (#811.8). After the host file is loaded into the Exchange File, the packed reminders can be installed.

NOTE: Some of the Reminder Exchange options require programmer access (@).

Reminder Exchange allows the exchange of clinical reminders and reminder dialogs from test account to production, between sites, and within VISNs,

Changes in patch 18

- A problem where a TIU Template was being packed up incorrectly was corrected. All entries in PCE files were installing at a low IEN, which makes them national, so sites could not edit them. This was changed; now only national PCE entries will be installed at low IENs.
- Reminder Exchange did not have all the functionality needed for installing updates to national terms. The merge action preserved site-mapped findings, but did not allow updates of finding modifiers such as Beginning Date/Time and Ending Date/Time for nationally mapped findings. To improve this situation, a new action called update was added and a change to how merge works was made.

For terms, these actions work as follows:

Update – any finding that is in the Exchange entry and not already mapped is added, and findings that are in the Exchange entry and already mapped in the site entry are updated; i.e., all finding modifiers are set to the values in the Exchange entry. Findings that are mapped in the site entry but not in the Exchange entry are left as is.

Merge – any finding that is already mapped in the site entry is left as is, and any finding that is in the Exchange entry but not already mapped in the site entry is added.

For dialogs these actions work as follows:

Update – additional findings that are in the site entry are left and any additional findings that are in the Exchange entry but not already in the site entry are added. All other dialog fields are set to what is in the Exchange entry.

Merge – additional findings that are in the site entry are left and any additional findings that are in the Exchange entry but not already in the site entry are added.

Note that during interactive installs, action choices for dialogs are only available when using the install selected action. If install all, is used everything is installed in overwrite mode.

Changes in patch 12

Major enhancements were made to Reminder Exchange. The main change visible to users is the ability to select individual reminder file entries for packing. Now when the Create Exchange File Entry (CFE) action is selected, the user will be presented with the following selection list:

```
Select from the following reminder files:
1 REMINDER COMPUTED FINDINGS
2 REMINDER COUNTING GROUP
3 REMINDER DEFINITION
4 REMINDER DIALOG
5 REMINDER EXTRACT COUNTING RULE
6 REMINDER EXTRACT DEFINITION
7 REMINDER LIST RULE
8 REMINDER LOCATION LIST
9 REMINDER SPONSOR
10 REMINDER TAXONOMY
11 REMINDER TERM
Select a file: (1-11):
```

Multiple items of different types can be selected for packing into a single Exchange File entry. For reminder dialogs, selection of individual dialog items is now allowed; the user is no longer limited to packing up the entire dialog.

In previous versions of Reminder Exchange, only reminder definitions could be selected; the packing included everything the definition needed to function, such as sponsor, findings, and dialog. In this new version of Reminder Exchange, this functionality has been extended. When a reminder file entry is selected from the above list, everything it needs to function will be included in the packed entry. An extract definition could include reminder definitions and rule sets, which in turn have their own dependencies. Because of this, an Exchange file entry may contain components that were not expected.

To help the user know what is being included, as it is packing up an entry, Reminder Exchange will list every single component that is being included.

TIU/Health Summary Objects will be packed up if they are used in a reminder dialog that is being packed. The Health Summary Type will also be packed up if it does not contain local components and it does not contain the PROGRESS NOTES SELECTED component. A normal TIU Object will not be packed. If a TIU Object or Health Summary Type is not packed up, these items will appear in the list of components in the reminder exchange entries, but they will not be installable. Because of the packing order, these items will be installed on the system after the dialog is installed on the system.

For TIU Objects, Health Summary Objects, Health Summary Types, and/or entries from the Order Dialog file (#101.41) that are not packed up, descriptive text has been added to the reminder exchange entry summary field, describing what is in the items that were not packed up. This should help the receiving sites recreate these items as needed.

Automated dialog error checking has been added. All dialogs that are on the list to be packed will be checked. Two levels of severity will be reported: WARNING and FATAL ERROR. Each error will give a detailed description of the problems that are found. A FATAL ERROR prevents the dialog from being packed; therefore the packing will abort. A WARNING will allow the packing to proceed.

- FATAL errors mean the dialog will not work and are caused by things such as a pointer to an item that does not exist.
- WARNING means the dialog will function but possibly not as expected. For example, if the dialog contains a disabled item a warning will be generated. See example 2 and 3 for a display of the checker.

The following examples illustrate the points discussed above.

Example 1

In this example, a single reminder dialog is selected for packing. This dialog contains branching logic with the VA-REMINDER DEFINITION computed finding and it includes a TIU/HS OBJECT with the Clinical Reminder Due Health Summary Component.

```
Select from the following reminder files:
 1 REMINDER COMPUTED FINDINGS
 2 REMINDER COUNTING GROUP
 3 REMINDER DEFINITION
 4 REMINDER DIALOG
 5 REMINDER EXTRACT COUNTING RULE
 6 REMINDER EXTRACT DEFINITION
 7 REMINDER LIST RULE
 8 REMINDER LOCATION LIST
 9 REMINDER SPONSOR
10 REMINDER TAXONOMY
11 REMINDER TERM
Select a file: (1-11): 4
Select REMINDER DIALOG NAME: EXCHANGE1 DIALOG      reminder dialog      LOCAL
...OK? Yes//      (Yes)
Enter another one or just press enter to go back to file selection.
Select REMINDER DIALOG NAME:
Select from the following reminder files:
 1 REMINDER COMPUTED FINDINGS
 2 REMINDER COUNTING GROUP
 3 REMINDER DEFINITION
 4 REMINDER DIALOG
 5 REMINDER EXTRACT COUNTING RULE
 6 REMINDER EXTRACT DEFINITION
 7 REMINDER LIST RULE
 8 REMINDER LOCATION LIST
 9 REMINDER SPONSOR

10 REMINDER TAXONOMY
11 REMINDER TERM
Select a file: (1-11):
Packing components ...
Adding routine PXRMCDDEF
Adding VA GENERIC COLESEVELAM, IEN=3662
Adding VA GENERIC CERIVASTATIN, IEN=3505
Adding VA GENERIC FENOFIBRATE, IEN=3489
Adding VA GENERIC ATORVASTATIN, IEN=3382
Adding VA GENERIC FLUVASTATIN, IEN=3184
Adding VA GENERIC SIMVASTATIN, IEN=2708
Adding VA GENERIC PRAVASTATIN, IEN=2689
Adding VA GENERIC LOVASTATIN, IEN=2116
Adding VA GENERIC CHOLESTYRAMINE, IEN=1160
Adding VA GENERIC NIACIN, IEN=1080
Adding VA GENERIC GEMFIBROZIL, IEN=968
Adding VA GENERIC CLOFIBRATE, IEN=795
Adding VA GENERIC COLESTIPOL, IEN=406
```

Adding ORDER DIALOG ZZJM LIPID PROFILE, IEN=1348
 Adding GMRV VITAL TYPE BLOOD PRESSURE, IEN=1
 Adding MH TESTS AND SURVEYS AUDC, IEN=5
 Adding TIU TEMPLATE FIELD A A PAIN HX CAUSE, IEN=765
 Adding EDUCATION TOPICS VA-EXERCISE, IEN=363
 Adding EDUCATION TOPICS VA-EXERCISE SCREENING, IEN=11
 Adding EDUCATION TOPICS VA-DIABETES FOLLOW-UP, IEN=358
 Adding EDUCATION TOPICS VA-DIABETES FOOT CARE, IEN=359
 Adding EDUCATION TOPICS VA-DIABETES MEDICATIONS, IEN=357
 Adding EDUCATION TOPICS VA-DIABETES EXERCISE, IEN=356
 Adding EDUCATION TOPICS VA-DIABETES DIET, IEN=362
 Adding EDUCATION TOPICS VA-DIABETES LIFESTYLE ADAPTATIONS, IEN=361
 Adding EDUCATION TOPICS VA-DIABETES COMPLICATIONS, IEN=355
 Adding EDUCATION TOPICS VA-DIABETES DISEASE PROCESS, IEN=354
 Adding EDUCATION TOPICS VA-DIABETES, IEN=360
 Adding EDUCATION TOPICS VA-SUBSTANCE ABUSE FOLLOW-UP, IEN=8
 Adding EDUCATION TOPICS VA-SUBSTANCE ABUSE MEDICATIONS, IEN=7
 Adding EDUCATION TOPICS VA-SUBSTANCE ABUSE EXERCISE, IEN=6
 Adding EDUCATION TOPICS VA-SUBSTANCE ABUSE DIET, IEN=5
 Adding EDUCATION TOPICS VA-SUBSTANCE ABUSE COMPLICATIONS, IEN=4
 Adding EDUCATION TOPICS VA-SUBSTANCE ABUSE DISEASE PROCESS, IEN=3
 Adding EDUCATION TOPICS VA-SUBSTANCE ABUSE LIFESTYLE ADAPTATIONS, IEN=2
 Adding EDUCATION TOPICS VA-SUBSTANCE ABUSE, IEN=1
 Adding EDUCATION TOPICS VA-NUTRITION/WEIGHT SCREENING, IEN=12
 Adding EDUCATION TOPICS VA-ADVANCE DIRECTIVES SCREENING, IEN=9
 Adding EDUCATION TOPICS VA-ADVANCE DIRECTIVES, IEN=338
 Adding EDUCATION TOPICS VA-ALCOHOL ABUSE SCREENING, IEN=10
 Adding EDUCATION TOPICS VA-ALCOHOL ABUSE FOLLOW-UP, IEN=352
 Adding EDUCATION TOPICS VA-ALCOHOL ABUSE MEDICATIONS, IEN=351
 Adding EDUCATION TOPICS VA-ALCOHOL ABUSE EXERCISE, IEN=350
 Adding EDUCATION TOPICS VA-ALCOHOL ABUSE DIET, IEN=349
 Adding EDUCATION TOPICS VA-ALCOHOL ABUSE COMPLICATIONS, IEN=348
 Adding EDUCATION TOPICS VA-ALCOHOL ABUSE DISEASE PROCESS, IEN=347
 Adding EDUCATION TOPICS VA-ALCOHOL ABUSE LIFESTYLE ADAPTATIONS, IEN=340
 Adding EDUCATION TOPICS VA-ALCOHOL ABUSE, IEN=339
 Adding EXAM FOBT(CLINIC), IEN=660001
 Adding HEALTH FACTORS ALCOHOL USE, IEN=12
 Adding HEALTH FACTORS BINGE DRINKING, IEN=19
 Adding HEALTH FACTORS PT EDUCATION NEEDS/BARRIERS, IEN=612096
 Adding HEALTH FACTORS BARRIERS LACK OF SUPPORT SYSTEM, IEN=612108
 Adding HEALTH FACTORS REMINDER FACTORS, IEN=41
 Adding HEALTH FACTORS ACTIVATE SIGMOIDOSCOPY, IEN=52
 Adding HEALTH FACTORS INACTIVATE SIGMOIDOSCOPY, IEN=51
 Adding HEALTH FACTORS ACTIVATE BREAST CANCER SCREEN, IEN=43
 Adding HEALTH FACTORS INACTIVATE BREAST CANCER SCREEN, IEN=42
 Adding HEALTH FACTORS BRADEN SCALE, IEN=612715
 Adding HEALTH FACTORS BRADEN SCALE 9 OR LOWER, IEN=612903
 Adding HEALTH FACTORS BRADEN SCALE 10-12, IEN=612902
 Adding HEALTH FACTORS BRADEN SCALE 13-14, IEN=612901
 Adding HEALTH FACTORS BRADEN SCALE 19 OR HIGHER, IEN=612716
 Adding HEALTH FACTORS BRADEN SCALE 15-18, IEN=612714
 Adding HEALTH FACTORS LIPID MED INTERVENTIONS, IEN=660077
 Adding HEALTH FACTORS ORDER LIPID PROFILE, IEN=660070
 Adding HEALTH FACTORS OUTSIDE LDL, IEN=660069
 Adding HEALTH FACTORS OUTSIDE LDL 120-129, IEN=80
 Adding HEALTH FACTORS UNCONFIRMED DIAGNOSIS, IEN=660084
 Adding HEALTH FACTORS UNCONFIRMED IHD DIAGNOSIS, IEN=660085
 Adding HEALTH FACTORS LIPID PROFILE INTERVENTIONS, IEN=660074
 Adding HEALTH FACTORS OTHER DEFER LIPID PROFILE, IEN=83
 Adding HEALTH FACTORS REFUSED LIPID PROFILE, IEN=85
 Adding HEALTH FACTORS OUTSIDE LDL >129, IEN=82
 Adding HEALTH FACTORS OUTSIDE LDL <100, IEN=81
 Adding HEALTH FACTORS OUTSIDE LDL 100-119, IEN=79

Adding HEALTH FACTORS A A PAIN HX OUTSIDE, IEN=660013
 Adding HEALTH FACTORS A A PAIN AM OUTSIDE ASSESSMENT, IEN=660017
 Adding REMINDER SPONSOR NONE, IEN=19
 Adding REMINDER SPONSOR Office of Quality & Performance, IEN=15
 Adding REMINDER COMPUTED FINDINGS VA-REMINDER DEFINITION, IEN=35
 Adding REMINDER TAXONOMY VA-COLORECTAL CANCER SCREEN, IEN=31
 Adding REMINDER TAXONOMY VA-FOBT, IEN=27
 Adding REMINDER TAXONOMY VA-FLEXISIGMOIDOSCOPY, IEN=15
 Adding REMINDER TAXONOMY VA-MAMMOGRAM/SCREEN, IEN=16
 Adding REMINDER TAXONOMY VA-ISCHEMIC HEART DISEASE, IEN=14
 Adding REMINDER TERM EDUTEST, IEN=660006
 Adding REMINDER TERM VA-ORDER LIPID PROFILE HEALTH FACTOR, IEN=61
 Adding REMINDER TERM VA-LIPID LOWERING MEDS, IEN=54
 Adding REMINDER TERM VA-OUTSIDE LDL 120-129, IEN=52
 Adding REMINDER TERM VA-UNCONFIRMED IHD DIAGNOSIS, IEN=42
 Adding REMINDER TERM VA-OTHER DEFER LIPID PROFILE, IEN=41
 Adding REMINDER TERM VA-REFUSED LIPID PROFILE, IEN=40
 Adding REMINDER TERM VA-LIPID PROFILE ORDERABLE, IEN=39
 Adding REMINDER TERM VA-OUTSIDE LDL >129, IEN=36
 Adding REMINDER TERM VA-OUTSIDE LDL <100, IEN=35
 Adding REMINDER TERM VA-OUTSIDE LDL 100-119, IEN=34
 Adding REMINDER TERM VA-LDL, IEN=32
 Adding REMINDER TERM VA-IHD DIAGNOSIS, IEN=27
 Adding REMINDER TERM BRANCHING LOGIC TERM, IEN=527
 Adding REMINDER DEFINITION EDUTEST, IEN=660020
 Adding REMINDER DEFINITION EDUTEST, IEN=223
 Adding REMINDER DEFINITION DVF REMINDER, IEN=365
 Adding REMINDER DEFINITION AUDC, IEN=318
 Adding REMINDER DEFINITION VA-*COLORECTAL CANCER SCREEN (SIG.), IEN=15
 Adding REMINDER DEFINITION VA-*BREAST CANCER SCREEN, IEN=4
 Adding REMINDER DEFINITION VA-IHD LIPID PROFILE, IEN=70
 Adding REMINDER DIALOG PXR COMMENT, IEN=1
 Adding REMINDER DIALOG PXR REFUSED, IEN=86
 Adding REMINDER DIALOG ED EXERCISE REFUSED, IEN=660006
 Adding REMINDER DIALOG PXR OUTSIDE LOCATION, IEN=41
 Adding REMINDER DIALOG PXR VISIT DATE, IEN=40
 Adding REMINDER DIALOG ED EXERCISE DONE ELSEWHERE, IEN=660043
 Adding REMINDER DIALOG PXR LEVEL OF UNDERSTANDING, IEN=2
 Adding REMINDER DIALOG ED EXERCISE DONE, IEN=660005
 Adding REMINDER DIALOG ED EXERCISE SCREENING REFUSED, IEN=660004
 Adding REMINDER DIALOG ED EXERCISE SCREENING DONE ELSEWHERE, IEN=660042
 Adding REMINDER DIALOG HF BARRIER TO LEARNING, IEN=660169
 Adding REMINDER DIALOG ED EXERCISE SCREENING DONE, IEN=660003
 Adding REMINDER DIALOG ED SUBSTANCE ABUSE REFUSED, IEN=660002
 Adding REMINDER DIALOG ED DIABETES FOOT CARE REFUSED, IEN=660118
 Adding REMINDER DIALOG ED DIABETES FOOT CARE DONE ELSEWHERE, IEN=660117
 Adding REMINDER DIALOG ED DIABETES FOOT CARE DONE, IEN=660084
 Adding REMINDER DIALOG ED NUTRITION/WEIGHT SCREENING REFUSED, IEN=660053
 Adding REMINDER DIALOG ED NUTRITION/WEIGHT SCREENING DONE ELSEWHERE, IEN=660286
 Adding REMINDER DIALOG ED SUBSTANCE ABUSE DONE ELSEWHERE, IEN=660041
 Adding REMINDER DIALOG ED NUTRITION/WEIGHT SCREENING DONE, IEN=660051
 Adding REMINDER DIALOG ED SUBSTANCE ABUSE FOLLOW-UP REFUSED, IEN=660282
 Adding REMINDER DIALOG ED SUBSTANCE ABUSE FOLLOW-UP DONE ELSEWHERE, IEN=660278
 Adding REMINDER DIALOG ED SUBSTANCE ABUSE FOLLOW-UP DONE, IEN=660205
 Adding REMINDER DIALOG ED DIABETES REFUSED, IEN=660008
 Adding REMINDER DIALOG ED DIABETES DONE ELSEWHERE, IEN=660044
 Adding REMINDER DIALOG ED DIABETES DONE, IEN=660007
 Adding REMINDER DIALOG ED SUBSTANCE ABUSE DONE, IEN=660001
 Adding REMINDER DIALOG EXCHANGE 4, IEN=660000158
 Adding REMINDER DIALOG MH AUDC, IEN=1509
 Adding REMINDER DIALOG AUTO AUDC, IEN=1510
 Adding REMINDER DIALOG INACTIVE OBJECT, IEN=1710
 Adding REMINDER DIALOG OBJECT TEST, IEN=1516

```

Adding REMINDER DIALOG ORDER ELEMENT, IEN=1049
Adding REMINDER DIALOG RGP4 ELEMENT 2, IEN=1536
Adding REMINDER DIALOG RGP4 ELEMENT 1, IEN=1535
Adding REMINDER DIALOG RESULT GROUP 4, IEN=1534
Adding REMINDER DIALOG RGP1 ELEMENT 2, IEN=1520
Adding REMINDER DIALOG RGP1 ELEMENT 1, IEN=1519
Adding REMINDER DIALOG RESULT GROUP 1, IEN=1529
Adding REMINDER DIALOG GP1 ELEMENT 2, IEN=1515
Adding REMINDER DIALOG RGP2 ELEMENT 2, IEN=1522
Adding REMINDER DIALOG RESULT ELEMENT 1, IEN=1537
Adding REMINDER DIALOG RGP3 ELEMENT 2, IEN=1526
Adding REMINDER DIALOG RGP3 ELEMENT 1, IEN=1525
Adding REMINDER DIALOG RESULT GROUP 3, IEN=1533
Adding REMINDER DIALOG RGP2 ELEMENT 1, IEN=1521
Adding REMINDER DIALOG RESULT GROUP 2, IEN=1530
Adding REMINDER DIALOG VA-IHD LIPID OTHER DEFER, IEN=390
Adding REMINDER DIALOG VA-IHD SPACER, IEN=397
Adding REMINDER DIALOG VA-IHD LIPID 120-129 DONE ELSE, IEN=392
Adding REMINDER DIALOG VA-IHD LIPID >129 DONE ELSE, IEN=281
Adding REMINDER DIALOG VA-IHD LIPID 100-119 DONE ELSE, IEN=280
Adding REMINDER DIALOG VA-IHD LIPID <100 DONE ELSE, IEN=279
Adding REMINDER DIALOG VA-IHD LIPID DONE ELSEWHERE GROUP, IEN=404
Adding REMINDER DIALOG VA-IHD UNCONFIRMED DIAGNOSIS, IEN=276
Adding REMINDER DIALOG VA-IHD LIPID REFUSED, IEN=270
Adding REMINDER DIALOG VA-IHD DIRECT LDL ORDERED, IEN=278
Adding REMINDER DIALOG VA-IHD FASTING LIPID ORDERED, IEN=277
Adding REMINDER DIALOG VA-IHD LIPID ORDER GROUP, IEN=272
Adding REMINDER DIALOG VA-IHD LIPID PROFILE HEADER, IEN=209
Adding REMINDER DIALOG VA-IHD LIPID PROFILE, IEN=269
Adding REMINDER DIALOG GP1 ELEMENT 1, IEN=1514
Adding REMINDER DIALOG GROUP 1, IEN=1527
Adding REMINDER DIALOG EXCHANGE DIALOG, IEN=1709
Adding HEALTH SUMMARY COMPONENT PCE HEALTH FACTORS ALL, IEN=204
Adding HEALTH SUMMARY COMPONENT CLINICAL REMINDERS DUE, IEN=202
Adding HEALTH SUMMARY COMPONENT TEST, IEN=5000147
Adding HEALTH SUMMARY COMPONENT PCE HEALTH FACTORS SELECTED, IEN=203
Adding HEALTH SUMMARY TYPE NP NEW HS TYPE, IEN=223
Adding HEALTH SUMMARY TYPE TEST PROGRESS, IEN=208
Adding HEALTH SUMMARY TYPE VA-BRADEN SCALE 30D, IEN=104
Adding HEALTH SUMMARY OBJECTS NP TIUHS OBJECT TEST (TIU), IEN=6600090
Adding HEALTH SUMMARY OBJECTS LAB TEST (TIU), IEN=6600003
Adding HEALTH SUMMARY OBJECTS VA-BRADEN SCALE 30D (TIU), IEN=6600082
Adding TIU DOCUMENT DEFINITION PATIENT SEX, IEN=74
Adding TIU DOCUMENT DEFINITION PATIENT RACE, IEN=75
Adding TIU DOCUMENT DEFINITION NP TIUHS OBJECT TEST, IEN=1647
Adding TIU DOCUMENT DEFINITION TIU TEST, IEN=1337
Adding TIU DOCUMENT DEFINITION BRADEN SCALE 30D, IEN=1332
Packing is complete.

```

Notice that the above list contains an extensive set of items, even though only a single reminder dialog was selected for packing. Everything in the dialog was checked for dependencies and each dependency was automatically included. In turn, each of these was checked for dependencies and so on. This recursive dependency inclusion may generate a list of items that is far larger than originally expected but it insures that everything required by the items selected for packing is included in the packed entry.

Example 2

In this example a reminder dialog is selected and the dialog checking generates a warning.

```

Select from the following reminder files:
  1 REMINDER COMPUTED FINDINGS
  2 REMINDER COUNTING GROUP
  3 REMINDER DEFINITION

```

```

4 REMINDER DIALOG
5 REMINDER EXTRACT COUNTING RULE
6 REMINDER EXTRACT DEFINITION
7 REMINDER LIST RULE
8 REMINDER LOCATION LIST
9 REMINDER SPONSOR
10 REMINDER TAXONOMY
11 REMINDER TERM
Select a file: (1-11): 4
Select REMINDER DIALOG NAME: EXCHANGE2 DIALOG      reminder dialog      LOCAL
...OK? Yes//      (Yes)
Enter another one or just press enter to go back to file selection.
Select REMINDER DIALOG NAME:
Select from the following reminder files:
1 REMINDER COMPUTED FINDINGS
2 REMINDER COUNTING GROUP
3 REMINDER DEFINITION
4 REMINDER DIALOG
5 REMINDER EXTRACT COUNTING RULE
6 REMINDER EXTRACT DEFINITION
7 REMINDER LIST RULE
8 REMINDER LOCATION LIST
9 REMINDER SPONSOR
10 REMINDER TAXONOMY
11 REMINDER TERM
Select a file: (1-11):
**WARNING**
EXCHANGE2 DIALOG contains the following errors.
The dialog element INACTIVE OBJECT contains a reference to a TIU
Object NP TIUHS OBJECT TEST in the Dialog Text field. This TIU Object is
inactive.
Packing is complete.

```

Because only a warning is generated, packing is allowed to proceed.

Example 3

In this example a reminder dialog is selected and the dialog checking generates a fatal error.

```

Select from the following reminder files:
1 REMINDER COMPUTED FINDINGS
2 REMINDER COUNTING GROUP
3 REMINDER DEFINITION
4 REMINDER DIALOG
5 REMINDER EXTRACT COUNTING RULE
6 REMINDER EXTRACT DEFINITION
7 REMINDER LIST RULE
8 REMINDER LOCATION LIST
9 REMINDER SPONSOR
10 REMINDER TAXONOMY
11 REMINDER TERM
Select a file: (1-11): 4
Select REMINDER DIALOG NAME: EXCHANGE3 DIALOG      reminder dialog      LOCAL
...OK? Yes//      (Yes)
Enter another one or just press enter to go back to file selection.
Select REMINDER DIALOG NAME:
Select from the following reminder files:
1 REMINDER COMPUTED FINDINGS
2 REMINDER COUNTING GROUP
3 REMINDER DEFINITION
4 REMINDER DIALOG
5 REMINDER EXTRACT COUNTING RULE

```

```
6 REMINDER EXTRACT DEFINITION
7 REMINDER LIST RULE
8 REMINDER LOCATION LIST
9 REMINDER SPONSOR
10 REMINDER TAXONOMY
11 REMINDER TERM
Select a file: (1-11):
Checking reminder dialog(s) for errors....
**FATAL ERROR**
EXCHANGE3 DIALOG contains the following errors.
The dialog element BAD OBJECT contains a reference to a TIU Object
OBJECT NOT EXIST in the Dialog Text field. This TIU Object does not exist
on the system.
The dialog element INACTIVE OBJECT contains a reference to a TIU
Object NP TIUHS OBJECT TEST in the Dialog Text field. This TIU Object is
inactive.
Cannot create the packed file. Please correct the above fatal error(s).
```

In this example, two errors were found. The first error is considered a Fatal Error, because there is a TIU Object in the dialog that does not exist. The second error is the same error as in Example 2. The Fatal Error prevents the dialog from being packed up.

Terminology

Packing: When you create an Exchange File entry, you select one or more reminder file entries for packing. The packing process consists of going through the selected entries and building a list of everything they need to function. The entire list of items is included in the Exchange File entry. For example, if a reminder definition is being packed everything the definition needs to function is included. Some of the included components may not be transportable for various reasons such as being standardized, they will be included in the Exchange File entry so that we know they are used but they will not be installable.

Exchange File (#811.8): Stores entries of packed reminders and dialogs with their components. Packed reminders can be exchanged through VistA MailMan or as a Host file. The default host file extension is .PRD (Packed Reminder Definition).

VistA MailMan: Allows users to send the packed reminder via a VistA mail message. When sites are collaborating on development of new reminders and dialogs, messages containing reminders, dialogs, or other reminder components may be sent between sites for loading into the Clinical Reminders Exchange File (#811.8).

Host File: Often the domains for MailMan transmission for test accounts are closed. In this case, a host file is used to transport the packed reminders. When a host file is created, it is initially stored on the MUMPS server. (Host file is the terminology used in Kernel.) Typically, you would generate a host file for use on a web site. The Host File will have to be moved from the MUMPS server to the web server. Once it is on the web server, it can be downloaded using a web browser. This will initially put it on your PC. Then it will have to be moved from the PC to the MUMPS server, at which point it can be loaded into the Exchange File (#811.8).

Technical Overview

In the Reminder Exchange utility, entries are packed into the Exchange File (#811.8) in XML format. Host file or MailMan messages can then be created from the Exchange File for distribution to other sites. Each host file or MailMan message may contain several packed entries. When the receiving site loads a host file or MailMan message into its Exchange File, all the packed entries in the host file or MailMan message are put into the Exchange File. Different versions of the same packed entry may be stored in the Exchange File. They are differentiated by the Date Packed.

All the components used in the item selected for packing are included. Whenever an installation is done, a history of the installation details is retained in the Exchange File.

Reminder dialogs are installed with the disabled field set to "DISABLED IN REMINDER EXCHANGE." (When you edit the dialog, one of the fields is DISABLE. If this field contains any text, then the dialog is disabled. To enable it, delete the text.)

Steps to Use Reminder Exchange

Summary of Steps

Detailed steps are provided in the following pages.

Export Steps

Step	Action
1. Decide which items to pack	LR – List Reminder Descriptions and RI – Reminder Inquiry
2. Create the Exchange File entry	CFE – Create File Entry
3. Export the packed entries	CHF – Create Host File or CMM – Create MailMan Message

Import Steps

Step	Action
1. Import the packed items into your Exchange File	LHF – Load Host File or LMM – Load MailMan Message
2. Install the Exchange File entry	IFE – Install File Entry
3. Review what you have done	IH – Installation History
4. Remove entries from your Exchange File when they are no longer needed	DFE – Delete File Entry

Reminder Exchange Main Screen

When you select Reminder Exchange from the Reminder Managers Menu, the Clinical Reminder Exchange main screen opens, which contains a list of current Exchange File entries in your system (if any) and all the options (actions) to create and delete Exchange File entries, to load them into host files and MailMan messages for export, and to import packed reminders from incoming host files and MailMan messages.

List Reminder Definitions and Reminder Definition Inquiry are also included so that you can review reminders before loading them into the Exchange File.

Clinical Reminder Exchange		Sep 16, 2004@15:20:11	Page: 1 of 1
Exchange File Entries.			
	Entry	Source	Date Packed
1	CDUE	CRUSER,ONE@SALT CITY	08/08/2003@10:59:52
2	CHA UNVESTED PATIENTS	CRPROVIDER,TWO@VAMC ONE	09/26/2004@13:00:59
6	EDUTEST	CRUSER,ONE@SALT CITY	06/19/2004@11:59:52
8	Hypertension Screen (VHACHS	CRPROVIDER,SIX@VAMC SIX	09/20/2004@10:59:22
+ Next Screen - Prev Screen ?? More Actions			
CFE	Create Exchange File Entry	IH	Installation History
CHF	Create Host File	LHF	Load Host File
CMM	Create MailMan Message	LMM	Load MailMan Message
DFE	Delete Exchange File Entry	LR	List Reminder Definitions
IFE	Install Exchange File Entry	RI	Reminder Definition Inquiry

A: Steps to Export Reminders

Export Steps

1. Select item



2. Create an Exchange File Entry
Enter description
Enter key words



3. Create MailMan Message or Host File
Enter subject
Select recipient



Detailed Steps to Export Reminders

1. Select an item that you want to exchange.

2. Create Exchange File Entry

Use the action CFE – Create Exchange File Entry to create and load packed entries into the Exchange File (#811.8). This allows selection of a reminder component and entry of a description and keywords to be stored in the Exchange File. If a single item is selected the description will be initialized with the description from the item. You may edit it as necessary.

Clinical Reminder Exchange		Jan 02, 2009@11:21:47	Page:	1 of	1
Exchange File Entries.					
	Entry	Source	Date Packed		
1	BLOOD PRESSURE CHECK	CRPROVIDER,ONE@VAMC1	03/28/2004@13:12:26		
2	SLC PNEUMOCOCCAL VACCINE	CRPROVIDER,TWO@VAMC2	03/29/2004@11:55:11		
3	VA-*CHOLESTEROL SCREEN (M)	CRPROVIDER,SIX@VAMC6	03/27/2004@14:59:42		
4	VA-ADVANCED DIRECTIVES EDUC	CRPROVIDER,TEN@VAMC10	3/27/2004@14:54:24		
5	VA-HEP C RISK ASSESSMENT	CRPROVIDER,ONE@VAMC1	03/27/2004@14:56:13		
+ Next Screen - Prev Screen ?? More Actions					
CFE	Create Exchange File Entry	IH	Installation History		
CHF	Create Host File	LHF	Load Host File		
CMM	Create MailMan Message	LMM	Load MailMan Message		
DFE	Delete Exchange File Entry	LR	List Reminder Definitions		
IFE	Install Exchange File Entry	RI	Reminder Definition Inquiry		
Select Action: Quit// CFE Exchange File Entry Creation					

Select from the following reminder files:

- 1 REMINDER COMPUTED FINDINGS
- 2 REMINDER COUNTING GROUP
- 3 REMINDER DEFINITION
- 4 REMINDER DIALOG
- 5 REMINDER EXTRACT COUNTING RULE
- 6 REMINDER EXTRACT DEFINITION
- 7 REMINDER LIST RULE
- 8 REMINDER LOCATION LIST
- 9 REMINDER SPONSOR
- 10 REMINDER TAXONOMY
- 11 REMINDER TERM

Select a file: (1-11):

3a. CHF-Create Host File

Use this action to create a host file containing selected entries from the Exchange File (#811.8).

A host file is any file that is stored in your site's local "host" directory or system. A complete host file consists of a path, file name, and extension. A path consists of a device and directory name. The default extension is PRD (Packed Reminder Definition). Your default path is determined by your system manager. If necessary, contact your IRM to learn how host files work at your site.

Example of a valid path:

USER\$:[TEMP]

Clinical Reminder Exchange		Apr 02, 2004@11:21:47	Page: 1 of 1
Exchange File Entries.			
	Entry	Source	Date Packed
1	BLOOD PRESSURE CHECK	CRPROVIDER,ONE@VAMC1	03/28/2004@13:12:26
2	SLC PNEUMOCOCCAL VACCINE	CRPROVIDER,TWO@VAMC2	03/29/2004@11:55:11
3	VA-*CHOLESTEROL SCREEN (M)	CRPROVIDER,SIX@VAMC6	03/27/2004@14:59:42
4	VA-ADVANCED DIRECTIVES EDUC	CRPROVIDER,TEN@VAMC10	3/27/2004@14:54:24
5	VA-HEP C RISK ASSESSMENT	CRPROVIDER,ONE@VAMC1	03/27/2004@14:56:13
+ Next Screen - Prev Screen ?? More Actions			
CFE	Create Exchange File Entry	IH	Installation History
CHF	Create Host File	LHF	Load Host File
CMM	Create MailMan Message	LMM	Load MailMan Message
DFE	Delete Exchange File Entry	LR	List Reminder Definitions
IFE	Install Exchange File Entry	RI	Reminder Definition Inquiry
Select Action: Quit// CHF			
Select Entry(s): (1-5): 2			

Enter a path: USER\$:[TEMP]// ?

A host file is a file in your host system.
A complete host file consists of a path, file name, and extension
A path consists of a device and directory name.
The default extension is prd (Packed Reminder Definition).
The default path is USER\$:[TEMP]

Enter a path: USER\$:[TEMP]// <Enter>

Enter a file name: ?

A file name has the format NAME.EXTENSION, the default extension is PRD
Therefore if you type in FILE for the file name, the host file will be
USER\$:[TEMP]FILE.PRD

Enter a file name: **DiabeticEye**

Will save reminder to host file USER\$:[TEMP]DiabeticEye.PRD?: Y//<Enter> ES

3b. CMM-Create MailMan Message

Use this action to create a MailMan Message containing selected entries from the Exchange File (#811.8).

Clinical Reminder Exchange		Apr 02, 2004@11:21:47	Page: 1 of 1
Exchange File Entries.			
	Entry	Source	Date Packed
1	BLOOD PRESSURE CHECK	CRPROVIDER,ONE@VAMC1	03/28/2004@13:12:26
2	SLC PNEUMOCOCCAL VACCINE	CRPROVIDER,TWO@VAMC2	03/29/2004@11:55:11
3	VA-*CHOLESTEROL SCREEN (M)	CRPROVIDER,SIX@VAMC6	03/27/2004@14:59:42
4	VA-ADVANCED DIRECTIVES EDUC	CRPROVIDER,TEN@VAMC10	3/27/2004@14:54:24
5	VA-HEP C RISK ASSESSMENT	CRPROVIDER,ONE@VAMC1	03/27/2004@14:56:13
+ Next Screen - Prev Screen ?? More Actions			
CFE	Create Exchange File Entry	IH	Installation History
CHF	Create Host File	LHF	Load Host File
CMM	Create MailMan Message	LMM	Load MailMan Message
DFE	Delete Exchange File Entry	LR	List Reminder Definitions
IFE	Install Exchange File Entry	RI	Reminder Definition Inquiry
Select Action: Quit// cmm MailMan Message Creation			

NOTE: The number of packed entries you can send via a MailMan message is limited by the MailMan parameters set locally for the number of lines in a message. Please check with your IRM for the number of lines allowed.

```
Select Entry(s): (1-5): 2
Enter a subject: [Enter a description of the Mail Message.]
Forward mail to: ?

Enter the recipient(s) of this message in any of the following formats:

Lastname,first           for a user at this site
Lastname,first@REMOTE-SITE for a user at another site
  (note: DUZ may be used, instead of Lastname,first for local or remote users)
G.<group-name>           for a mail group
D.<device-name>         for a device
*                         for a limited broadcast or broadcast to all users
                          (must be Postmaster or XMSTAR key holder)

Prefix any user address with 'I:' to send Information only.
                          'C:' to send Carbon Copy.
                          'L:' to send Later.
                          '-' to delete it.

Enter:
G.?                       for a list of mail groups
D.?                       for a list of devices

Enter '??' for detailed help.

Forward mail to: [Enter a user or Mail Group.]
Select basket to send to: IN//
And Forward to:
```

	Entry	Source	Date Packed
1	BLOOD PRESSURE CHECK	CRPROVIDER,ONE@VAMC1	03/28/2004@13:12:26
2	SLC PNEUMOCOCCAL VACCINE	CRPROVIDER,TWO@VAMC2	03/29/2004@11:55:11
3	VA-*CHOLESTEROL SCREEN (M)	CRPROVIDER,SIX@VAMC6	03/27/2004@14:59:42
4	VA-ADVANCED DIRECTIVES EDUC	CRPROVIDER,TEN@VAMC1	03/27/2004@14:54:24
5	VA-HEP C RISK ASSESSMENT	CRPROVIDER,ONE@VAMC1	03/27/2004@14:56:13

+ Next Screen		- Prev Screen	?? More Actions
CFE	Create Exchange File Entry	IH	Installation History
CHF	Create Host File	LHF	Load Host File
CMM	Create MailMan Message	LMM	Load MailMan Message
DFE	Delete Exchange File Entry	LR	List Reminder Definitions
IFE	Install Exchange File Entry	RI	Reminder Definition Inquiry
Select Action: Quit//			

B. Steps to Import Reminders

1. Request packed entry entry

2. Receive Mailman Message
Usually in Production



3. Forward Mailman Message
To test account (if necessary)

4. Load MailMan message
Creates entry

1a. LMM – Load MailMan Message

This option lets you load a MailMan message containing packed entries into your site's Exchange File (811.8).

Clinical Reminder Exchange	Jul 23, 2005@11:40:01	Page:	1 of 2
Entry	Source	Date Packed	

+ Next Screen - Prev Screen ?? More Actions			
CFE	Create Exchange File Entry	IH	Installation History
CHF	Create Host File	LHF	Load Host File
CMM	Create MailMan Message	LMM	Load MailMan Message
DFE	Delete Exchange File Entry	LR	List Reminder Definitions
IFE	Install Exchange File Entry	RI	Reminder Definition Inquiry

Select Action: Next Screen// **lmm** Load MailMan Message

1 CREX: diabetic eye exam
CRPROVIDER,ONE JUL 23, 2001@11:39:51

2 CREX: pain screening
CRPROVIDER,ONE JUL 23, 2001@11:37:59

CHOOSE 1-2: **1** CREX: diabetic eye exam
CRPROVIDER,ONE JUL 23, 2001@11:39:51

Loading MailMan message number 44024

1b. LHF – Load Host File

This action lets you load a host file containing packed entries into your local Exchange File (#811.8).

NOTE: Programmer access may be required to upload local host files, depending on how local file protections are set.

Clinical Reminder Exchange	Apr 02, 2004@11:21:47	Page:	1 of 1
Exchange File Entries.			

Entry	Source	Date Packed
1 BLOOD PRESSURE CHECK	CRPROVIDER,ONE@VAMC1	03/28/2004@13:12:26
2 SLC PNEUMOCOCCAL VACCINE	CRPROVIDER,TWO@VAMC2	03/29/2004@11:55:11
3 VA-*CHOLESTEROL SCREEN (M)	CRPROVIDER,SIX@VAMC6	03/27/2004@14:59:42
4 VA-ADVANCED DIRECTIVES EDUC	CRPROVIDER,TEN@VAMC10	3/27/2004@14:54:24
5 VA-HEP C RISK ASSESSMENT	CRPROVIDER,ONE@VAMC1	03/27/2004@14:56:13

+ Next Screen - Prev Screen ?? More Actions			
CFE	Create Exchange File Entry	IH	Installation History
CHF	Create Host File	LHF	Load Host File
CMM	Create MailMan Message	LMM	Load MailMan Message
DFE	Delete Exchange File Entry	LR	List Reminder Definitions
IFE	Install Exchange File Entry	RI	Reminder Definition Inquiry

Select Action: Quit// **lhf** Load Host File

Enter a path: USER\$:[TEMP]// **<Enter>**

The following PRD files were found in USER\$:[TEMP]

DIABETICEYE.PRD;1

Enter a file name: **DIABETICEYE**

Loading host file USER\$:[TEMP]DIABETICEYE.PRD

Select Action: Quit// - -

Clinical Reminder Exchange Jul 23, 2005@11:17:42 Page: 1 of 2
Host file USER\$:[SPOOL]DIABETICEYE.PRD successfully loaded.

+ Next Screen - Prev Screen ?? More Actions			
CFE	Create Exchange File Entry	IH	Installation History
CHF	Create Host File	LHF	Load Host File
CMM	Create MailMan Message	LMM	Load MailMan Message
DFE	Delete Exchange File Entry	LR	List Reminder Definitions
IFE	Install Exchange File Entry	RI	Reminder Definition Inquiry

Select Action: Next Screen//

CAUTION: Before starting an installation, you should examine the list of components in the packed entry and determine which ones already exist on your system. You should decide what you are going to do with each component and have a plan of action before proceeding with the installation.

REMINDER TERM entry TERMTEST6 already EXISTS, what do you want to do?

Select one of the following:

- C Create a new entry by copying to a new name
- I Install or Overwrite the current entry
- Q Quit the install
- S Skip, do not install this entry

Enter response: S// C reate a new entry by copying to a new name

2a. Installing Reminders from the Exchange File

The action IFE allows a packed entry to be selected for installation from the Exchange File (#811.8). Details of the Exchange File entry are displayed. Individual components are displayed (grouped by type). All or individual components may be selected for installation.

Exchange File Components		Aug 24, 2009@11:19:18	Page:	1 of	3
Component			Category	Exists	
Source:		CRMANAGER@VAMCXXXX			
Date Packed:		08/12/2009@11:07:26			
Package Version:		2.0P12			
Description:					
Patient reminder due on anyone with 2 entries of a diagnosis of HTN in the past 3 years. This reminder does not resolve. Additional text is displayed to the patient if the last 3 BPs were <= 130/80, if the last BP was >140/90 or if any of the last 3 BPs was >=160/100.					
If you use a different taxonomy for HTN or for renal diseases, you can substitute you local taxonomies into the national reminder term.					
Keywords:					
Components:					
GMRV VITAL TYPE					
BLOOD PRESSURE					X
REMINDER SPONSOR					
1 VA National Center for Health Promotion and					

Disease Prevention (NCP)		
2	Office of Quality & Performance	X
3	National Clinical Practice Guideline Council	X
REMINDER TAXONOMY		
4	VA-DIABETES	X
5	VA-HYPERTENSION	X
REMINDER TERM		
6	VA-BP >130/80 (ANY OF LAST 3)	
7	VA-BP >=160/100	X
8	VA-BP >=140/90	X
9	VA-MHV DIABETES OR KIDNEY DISEASE	X
10	VA-MHV HYPERTENSION DX	X
REMINDER DEFINITION		
11	VA-MHV HYPERTENSION	X

The “Exists” column indicates the component’s existence on the system based on identical names. When any component that already exists is selected for installation, a checksum will be computed for the already installed version and it will be compared to the checksum of the component in the Exchange file. If the checksums are identical, then the components are identical and the component will be automatically skipped.

The “Category” column applies to health factors to indicate whether or not the health factor defines a category. If it does, it must be installed before any health factors that belong to that category.

NOTE: Some findings, such as lab tests, are not transportable. These findings will be in the component list, as they are used by the definition or dialog, but you will not be able to select them for installation. Non-selectable findings will not have a number. When you install a definition or a dialog that uses a non-transportable finding, you will be prompted to enter a replacement. If it is a lab test, enter the name of the equivalent lab test at your site. The replacement item must match the finding type. A lab test cannot be replaced with anything but a lab test.

If a component is selected for installation, it may be installed without change, or copied to a new name. When installing reminder definitions or dialogs, if a component contained within the definition or dialog is missing from your system, you will be prompted to supply a replacement.

NOTE: Because computed findings contain executable code, programmer access (@) is required to install them.

When installing a reminder term the option looks like this:

```
REMINDER TERM entry TEST TERM already EXISTS,
what do you want to do?

    Select one of the following:
        C      Create a new entry by copying to a new name
        M      Merge findings
        O      Overwrite the current entry
        Q      Quit the install
        S      Skip, do not install this entry

Enter response: S//
```

The merge option will preserve the existing mapping and will merge any additional findings that are in the packed entry.

2b. Installing a Reminder Dialog

If a reminder dialog is selected for installation, details of the dialog are displayed. The entire dialog or individual components of the dialog (e.g. dialog groups or sub-groups) may be installed.

Dialog Components			Jan 26, 2005@12:38:51	Page:	1 of 1
Packed reminder dialog: SMOKING CESSATION EDUCATION					
Item	Seq.	Dialog Summary	Type	Exists	
1	1	HF ACTIVATE PNEUMOCOCCAL VACCINE DONE ELSEWHERE	element	X	
2	2	MH AIMS	element	X	
3	3	VM BLOOD PRESSURE DONE	element	X	
4		SMOKING CESSATION EDUCATION	dialog	X	
+ Next Screen - Prev Screen ?? More Actions					
DD	Dialog Details		DT	Dialog Text	
IS			IS	Install Selected	
DF	Dialog Findings		DU	Dialog Usage	
QU			QU	Quit	
DS	Dialog Summary		IA	Install All	
Select Action: Quit//					

NOTE: Order dialogs (quick orders) will be treated like findings that are not transportable, such as lab tests. They will appear in the list, as they are used by the dialog; however, they will not be selectable for installation. When you install the dialog, you will be given the opportunity to replace the quick order with a local one or to delete it from the dialog.

Other views may be selected:

DD Dialog Details – displays dialog summary plus any PXRm type additional prompts.

DF Dialog Findings – displays the findings associated with each dialog component and if the finding already exists on the system.

DT Dialog Text – displays the dialog question text for each component. This gives a preview of how the dialog will display in CPRS.

DU Dialog Usage – displays any other existing reminder dialogs using these components.

The reminder dialog or dialog component may be installed from any view in the same manner as other reminder components. Dialog components may be installed or copied to a new name.

3. Quick Install of Reminder Dialogs

If the reminder dialog and all components are new (or exist already), you can use a quick install option. If only some of the components exist, you will be stepped through them individually. Note that if a dialog is installed without the reminder definition, the option is given to link the dialog to an existing reminder.

Dialog Components Jan 26, 2005@12:52:05 Page: 1 of 1
Packed reminder dialog: DEMO REMINDER - SIMPLE

Item	Seq.	Dialog Summary	Type	Exists
1		DEMO REMINDER - SIMPLE	dialog	
2	5	IM HEP A DONE	element	
3	10	IM HEP A DONE ELSEWHERE	element	
4	15	IM HEP A CONTRA	element	

+ Next Screen - Prev Screen ?? More Actions					
DD	Dialog Details	DT	Dialog Text	IS	Install Selected
DF	Dialog Findings	DU	Dialog Usage	QU	Quit
DS	Dialog Summary	IA	Install All		
Select Action: Quit// IA Install All					

All dialog components for DEMO REMINDER - SIMPLE are new.
Install reminder dialog without making any changes: Y// ES
Reminder Dialog DEMO REMINDER - SIMPLE is not linked to a reminder.
Select Reminder to Link: LOCAL HEP A IMMUNIZATION

Dialog Components Jan 26, 2005@12:52:05 Page: 1 of 1
Packed reminder dialog: DEMO REMINDER - SIMPLE

DEMO REMINDER - SIMPLE (reminder dialog) installed from exchange file.

Item	Seq.	Dialog Summary	Type	Exists
1		DEMO REMINDER - SIMPLE	dialog	
2	5	IM HEP A DONE	element	
3	10	IM HEP A DONE ELSEWHERE	element	
4	15	IM HEP A CONTRA	element	

+ Next Screen - Prev Screen ?? More Actions					
DD	Dialog Details	DT	Dialog Text	IS	Install Selected
DF	Dialog Findings	DU	Dialog Usage	QU	Quit
DS	Dialog Summary	IA	Install All		
Select Action: Quit//					

4. IH – Installation History

Use this option to review the installation of an Exchange File entry.

Clinical Reminder Exchange Jul 23, 2004@11:27:15 Page: 1 of 2
Exchange File Entries.

Entry	Source	Date Packed
1 A NEW REMINDER	CRPROVIDER,ONE@VAMC1	06/18/2004@11:50:40
2 A**A SG PAIN SCREENING	CRPROVIDER,SIX@VAMC6	07/23/2004@10:55:23

+ Next Screen - Prev Screen ?? More Actions			
CFE	Create Exchange File Entry	IH	Installation History
CHF	Create Host File	LHF	Load Host File
CMM	Create MailMan Message	LMM	Load MailMan Message
DFE	Delete Exchange File Entry	LR	List Reminder Definitions
IFE	Install Exchange File Entry	RI	Reminder Definition Inquiry
Select Action: Next Screen// IH Installation History			
Select Entry(s): (1-4): 2			

Installation History		Jul 23, 2004@11:27:27	Page: 1 of 1
Entry	Source	Date Packed	
A**A SG PAIN SCREENING	CRPROVIDER,ONE@VAMC1		
07/23/2001@10:55:23			
Installation Date	Installed By		
-----	-----		
1 07/23/2004@10:58:48	CRPROVIDER,ONE		
Enter ?? for more actions			
DH	Delete Install History	ID	Installation Details
Select Action: Quit// ID Installation Details			
A**A SG PAIN SCREENING	07/23/2001@10:55:23	07/23/2001@10:58:48	
Component	Action	New Name	
EDUCATION TOPICS			
1 MANAGING PAIN	S		
HEALTH FACTORS			
2 REMINDER FACTORS	S		
3 Pain New Category	S		
4 PAIN PATIENT DECLINED TO REPORT PAIN	S		
5 PATIENT UNABLE TO REPORT PAIN SCORE	S		
6 PAIN PATIENT REPORTS NEW PAIN	S		
7 PATIENT REPORTS NEW PAIN	S		
8 HF.SG PATIENT NEEDS PAIN ASSESSMENT	S		
TIU TEMPLATE FIELD			
9 S's OLD/NEW	S		
Installation Detail		Jul 23, 2004@11:27:39	Page: 2 of 2
+ Entry	Date Packed	Date Installed	
REMINDER DEFINITION			
10 A**A SG PAIN SCREENING	S		
Enter ?? for more actions			
Select Action:Quit//			

7. Delete Exchange File Entry

Use this option to delete selected entries from the Reminder Exchange file #811.8.

Select Reminder Managers Menu Option: RX Reminder Exchange			
Clinical Reminder Exchange		Jun 21, 2004@12:09:19	Page: 1 of 3
Exchange File Entries.			
Entry	Source	Date Packed	
1 BLOOD PRESSURE CHECK	CRPROVIDER,ONE@VAMC1	03/28/2004@13:12:26	
2 SLC PNEUMOCOCCAL VACCINE	CRPROVIDER,TWO@VAMC2	03/29/2004@11:55:11	
3 VA-*CHOLESTEROL SCREEN (M)	CRPROVIDER,SIX@VAMC6	03/27/2004@14:59:42	
4 VA-ADVANCED DIRECTIVES EDUC	CRPROVIDER,TEN@VAMC10	3/27/2004@14:54:24	
5 VA-HEP C RISK ASSESSMENT	CRPROVIDER,ONE@VAMC1	03/27/2004@14:56:13	
+ Next Screen - Prev Screen ?? More Actions			
CFE	Create Exchange File Entry	IH	Installation History
CHF	Create Host File	LHF	Load Host File
CMM	Create MailMan Message	LMM	Load MailMan Message
DFE	Delete Exchange File Entry	LR	List Reminder Definitions

```

IFE  Install Exchange File Entry          RI  Reminder Definition Inquiry
Select Action: Next Screen// DFE  Delete Exchange File Entry
Select Entry(s):  (1-5): 1

Clinical Reminder Exchange    Jun 21, 2004@12:09:47          Page:    1 of    3
Deleted 1 Exchange File entry.

      Entry                               Source                Date Packed
-----
1  SLC PNEUMOCOCCAL VACCINE              CRPROVIDER,TWO@VAMC2    03/29/2004@11:55:11
2  VA-*CHOLESTEROL SCREEN (M)            CRPROVIDER,SIX@VAMC6    03/27/2004@14:59:42
3  VA-ADVANCED DIRECTIVES EDUC            CRPROVIDER,TEN@VAMC10   3/27/2004@14:54:24
4  VA-HEP C RISK ASSESSMENT              CRPROVIDER,ONE@VAMC1    03/27/2004@14:56:13
+ Next Screen  - Prev Screen  ?? More Actions
CFE  Create Exchange File Entry          IH  Installation History
CHF  Create Host File                    LHF  Load Host File
CMM  Create MailMan Message              LMM  Load MailMan Message
DFE  Delete Exchange File Entry          LR  List Reminder Definitions
IFE  Install Exchange File Entry          RI  Reminder Definition Inquiry
Select Action: Next Screen//

```

NOTE: This does not delete the Host file or MailMan message from the VistA system. If the Host file or MailMan message are not needed any more, you must delete these separately.

Tips for exchanging reminders

- Try at least one simple one first – and check the dialog!
- A Category for a health factor must exist to install the health factor.
- To use your own finding in a reminder you are importing, use the SKIP option. Then when the reminder is installed, you will be prompted for the finding to use in the reminder.
- Review local findings carefully.
- Allow dedicated time.
- Review the findings (terms, taxonomies).
- Document in your reminders what your intent and logic were in making it.
- Remember: When you import a reminder, it is YOURS.
- Some sites have Web pages set up for review – use the web before requesting reminders.
- Test!

NOTE: Reminder Exchange Tip

If you try to exchange a location list from one system to another and there is an inconsistency or mismatch between systems in the AMIS stop code, you will get the following error message. (In this case the system has two selectable entries for stop code 560, which will need to be corrected.)

```
REMINDER LOCATION LIST entry NEXUS STOP CODES FY05 is NEW, what do you want to do?  
Select one of the following:
```

C	Create a new entry by copying to a new name
I	Install
Q	Quit the install
S	Skip, do not install this entry

```
Enter response: i Install
```

```
Name associated with AMIS stop code does not match the one in the  
packed reminder:
```

```
AMIS=560
```

```
Site Name=ZZSUBSTANCE ABUSE - GROUP
```

```
Name in packed reminder=SUBSTANCE ABUSE - GROUP
```

```
The update failed, UPDATE^DIE returned the following error message:
```

```
MSG("DIERR")=1^1
```

```
MSG("DIERR",1)=701
```

```
MSG("DIERR",1,"PARAM",0)=3
```

```
MSG("DIERR",1,"PARAM",3)=GYNECOLOGY
```

```
MSG("DIERR",1,"PARAM","FIELD")=.01
```

```
MSG("DIERR",1,"PARAM","FILE")=810.90011
```

```
MSG("DIERR",1,"TEXT",1)=The value 'GYNECOLOGY' for field CREDIT STOP TO  
EXCLUDE
```

```
in CREDIT STOPS TO EXCLUDE SUB-FIELD in CLINIC STOP LIST SUB-FIELD in  
file REMIN
```

```
DER LOCATION LIST is not valid.
```

```
MSG("DIERR","E",701,1)=
```

```
REMINDER LOCATION LIST entry NEXUS STOP CODES FY05 did not get installed!  
Examine the above error message for the reason.
```

Reminder Test

Before a new or modified reminder is put into production, it should be thoroughly tested. The Reminder Test option provides a convenient tool that can be used as an aid in setting up new reminders and tracking down problems with existing ones. It lets you run a reminder without going through CPRS or Health Summary.

Change in Patch 18

Display of Beginning Date/Time and Ending Date/Time for each finding was added.

The format is:

FIEVAL("BDT")=Input date/time

FIEVAL("BDTE")=evaluated date/time

FIEVAL("EDT")=Input date/time

FIEVAL("EDTE")=evaluated date/time.

The output from this option provides a view of the internal workings of the clinical reminders software and allows you to see what happened as the reminder was evaluated. Errors and warnings that are not always seen on the Clinical Reminder Maintenance output are displayed here. When setting up a reminder, it's a good idea to have test patients with known clinical data such as examinations, immunizations, ICDs, CPTs, etc., that are pertinent to the reminder being developed. Using this option to run the reminder for test patients allows you to see if the reminder operates as expected.

You should have patients who are in the cohort and who are not in the cohort. For patients who are in the cohort, you should have some who have the reminder resolved and some who do not.

It is very useful to have the output from the Reminder Inquiry option available when using the test option.

Here is the inquiry for a reminder called EDUTEST.

```
Select Reminder Definition Management Option: RI   Inquire about Reminder Definition
Select Reminder Definition:  EDUTEST                Dec 24, 2008 11:00:10 am  Page 1
-----
EDUTEST                                           No. 660020
-----

Print Name:                Education Test
Class:                     LOCAL
Sponsor:                   NONE
Review Date:
Rescission Date:
Usage:                     CPRS
Related VA-* Reminder:
```

Reminder Dialog: EXCHANGE 4

Priority:

Description:

Technical Description:

Baseline Frequency:

Do In Advance Time Frame: Wait until actually DUE
Sex Specific:
Ignore on N/A:
Frequency for Age Range: 1 month for ages 25 to 60
Match Text: This is the age match text for age range 25 to 60. Patient is in age range. Line 2.
No Match Text: Patient is not in age range. Line 2
Frequency for Age Range: 1 year for ages 61 to 70
Match Text: This is match text for 61 to 70. The patient's age is |AGE|.
No Match Text: This is no match text for 61 to 70, the patient's age is |AGE|.

Findings:

---- Begin: VA-SUBSTANCE ABUSE (FI(1)=ED(1)) -----
Finding Type: EDUCATION TOPICS
Occurrence Count: -4
---- End: VA-SUBSTANCE ABUSE -----

---- Begin: VA-EXERCISE SCREENING (FI(2)=ED(11)) -----
Finding Type: EDUCATION TOPICS
Use in Resolution Logic: OR
Occurrence Count: 2
Found Text: VA-EXERCISE SCREENING FOUND TEXT. Lets test out some objects. The patient was seen on |VISIT DATE|. His last blood pressure was |BLOOD PRESSURE|. His last weight was |PATIENT WEIGHT|.
Not Found Text: VA-EXERCISE SCREENING NOT FOUND TEXT.
---- End: VA-EXERCISE SCREENING -----

---- Begin: VA-EXERCISE (FI(3)=ED(363)) -----
Finding Type: EDUCATION TOPICS
Occurrence Count: 2
---- End: VA-EXERCISE -----

---- Begin: VA-EXERCISE (FI(4)=ED(363)) -----
Finding Type: EDUCATION TOPICS
Beginning Date/Time: T-5M
---- End: VA-EXERCISE -----

---- Begin: VA-DIABETES (FI(5)=ED(360)) -----
Finding Type: EDUCATION TOPICS
---- End: VA-DIABETES -----

```

----- Begin: EDUTEST (FI(8)=RT(660006)) -----
      Finding Type: REMINDER TERM
      Occurrence Count: 3

      Mapped Findings:
      Mapped Finding Item: ED.VA-SUBSTANCE ABUSE

      Mapped Finding Item: ED.VA-EXERCISE SCREENING

      Mapped Finding Item: ED.VA-EXERCISE

      Mapped Finding Item: ED.VA-ADVANCE DIRECTIVES

----- End: EDUTEST -----

Function Findings:

----- Begin: FF(1)-----
      Function String: MRD(1,2)>MRD(5)
      Expanded Function String:
      MRD(VA-SUBSTANCE ABUSE,VA-EXERCISE SCREENING)>MRD(VA-DIABETES)
      Use in Resolution Logic: AND
----- End: FF(1) -----

----- Begin: FF(2)-----
      Function String: FI(1)&(FI(4)!FI(5))
      Expanded Function String:
      FI(VA-SUBSTANCE ABUSE)&(FI(VA-EXERCISE)!FI(VA-DIABETES))
----- End: FF(2) -----

----- Begin: FF(3)-----
      Function String: COUNT(2)>1
      Expanded Function String:
      COUNT(VA-EXERCISE SCREENING)>1
      Use in Resolution Logic: AND
----- End: FF(3) -----

----- Begin: FF(4)-----
      Function String: DIFF_DATE(1,2)>625
      Expanded Function String:
      DIFF_DATE(VA-SUBSTANCE ABUSE,VA-EXERCISE SCREENING)>625
----- End: FF(4) -----

General Patient Cohort Found Text:
      This is the general cohort found text.

General Patient Cohort Not Found Text:
      This is general cohort not found text. Line two of not found. Line 3 of
      not found. Patient's age is |AGE|.

General Resolution Found Text:
      This is the general resolution found text. Second line of resolution
      found text.

General Resolution Not Found Text:
      This is the general resolution not found text. Second line of not found.
      Third line of not found.

```

Default PATIENT COHORT LOGIC to see if the Reminder applies to a patient:
(SEX) & (AGE)

Expanded Patient Cohort Logic:
(SEX) & (AGE)

Default RESOLUTION LOGIC defines findings that resolve the Reminder:
FI(2) & FF(1) & FF(3)

Expanded Resolution Logic:
FI(VA-EXERCISE SCREENING) & FF(1) & FF(3)

Web Sites:

Web Site URL: Influenza Directive
Web Site Title:
Description:

Test option output for this reminder

Select Reminder Managers Menu Option: RT Reminder Test
Select Patient: CRPATIENT,TWO 10-10-72 666554444 YES ACTIVE DUTY
Enrollment Priority: GROUP 1 Category: IN PROCESS End Date:

Select Reminder: edutest LOCAL

Enter date for reminder evaluation: Dec 24, 2008// (DEC 24, 2008)

Display all term findings? N// y YES

The elements of the FIEVAL array are:

FIEVAL(1)=1
FIEVAL(1,1)=1
FIEVAL(1,1,"COMMENTS")=
FIEVAL(1,1,"CSUB","COMMENTS")=
FIEVAL(1,1,"CSUB","DATE")=2980700
FIEVAL(1,1,"CSUB","LEVEL OF UNDERSTANDING")=
FIEVAL(1,1,"CSUB","VALUE")=
FIEVAL(1,1,"CSUB","VISIT")=3935
FIEVAL(1,1,"DAS")=200
FIEVAL(1,1,"DATE")=2980700
FIEVAL(1,1,"LEVEL OF UNDERSTANDING")=
FIEVAL(1,1,"VALUE")=
FIEVAL(1,1,"VISIT")=3935
FIEVAL(1,2)=1
FIEVAL(1,2,"COMMENTS")=
FIEVAL(1,2,"CSUB","COMMENTS")=
FIEVAL(1,2,"CSUB","DATE")=3000000
FIEVAL(1,2,"CSUB","LEVEL OF UNDERSTANDING")=
FIEVAL(1,2,"CSUB","VALUE")=
FIEVAL(1,2,"CSUB","VISIT")=3997
FIEVAL(1,2,"DAS")=212
FIEVAL(1,2,"DATE")=3000000
FIEVAL(1,2,"LEVEL OF UNDERSTANDING")=
FIEVAL(1,2,"VALUE")=
FIEVAL(1,2,"VISIT")=3997
FIEVAL(1,3)=1
FIEVAL(1,3,"COMMENTS")=
FIEVAL(1,3,"CSUB","COMMENTS")=

```

FIEVAL(1,3,"CSUB","DATE")=3000202.15
FIEVAL(1,3,"CSUB","LEVEL OF UNDERSTANDING")=3
FIEVAL(1,3,"CSUB","VALUE")=3
FIEVAL(1,3,"CSUB","VISIT")=3693
FIEVAL(1,3,"DAS")=159
FIEVAL(1,3,"DATE")=3000202.15
FIEVAL(1,3,"LEVEL OF UNDERSTANDING")=3
FIEVAL(1,3,"VALUE")=3
FIEVAL(1,3,"VISIT")=3693
FIEVAL(1,4)=1
FIEVAL(1,4,"COMMENTS")=
FIEVAL(1,4,"CSUB","COMMENTS")=
FIEVAL(1,4,"CSUB","DATE")=3000217.085926
FIEVAL(1,4,"CSUB","LEVEL OF UNDERSTANDING")=3
FIEVAL(1,4,"CSUB","VALUE")=3
FIEVAL(1,4,"CSUB","VISIT")=3720
FIEVAL(1,4,"DAS")=151
FIEVAL(1,4,"DATE")=3000217.085926
FIEVAL(1,4,"LEVEL OF UNDERSTANDING")=3
FIEVAL(1,4,"VALUE")=3
FIEVAL(1,4,"VISIT")=3720
FIEVAL(1,"COMMENTS")=
FIEVAL(1,"CSUB","COMMENTS")=
FIEVAL(1,"CSUB","DATE")=2980700
FIEVAL(1,"CSUB","LEVEL OF UNDERSTANDING")=
FIEVAL(1,"CSUB","VALUE")=
FIEVAL(1,"CSUB","VISIT")=3935
FIEVAL(1,"DAS")=200
FIEVAL(1,"DATE")=2980700
FIEVAL(1,"FILE NUMBER")=9000010.16
FIEVAL(1,"FINDING")=1;AUTTEDT(
FIEVAL(1,"LEVEL OF UNDERSTANDING")=
FIEVAL(1,"VALUE")=
FIEVAL(1,"VISIT")=3935
FIEVAL(2)=1
FIEVAL(2,1)=1
FIEVAL(2,1,"COMMENTS")=
FIEVAL(2,1,"CSUB","COMMENTS")=
FIEVAL(2,1,"CSUB","DATE")=3000317.08
FIEVAL(2,1,"CSUB","LEVEL OF UNDERSTANDING")=
FIEVAL(2,1,"CSUB","VALUE")=
FIEVAL(2,1,"CSUB","VISIT")=3787
FIEVAL(2,1,"DAS")=214
FIEVAL(2,1,"DATE")=3000317.08
FIEVAL(2,1,"LEVEL OF UNDERSTANDING")=
FIEVAL(2,1,"VALUE")=
FIEVAL(2,1,"VISIT")=3787
FIEVAL(2,2)=1
FIEVAL(2,2,"COMMENTS")=
FIEVAL(2,2,"CSUB","COMMENTS")=
FIEVAL(2,2,"CSUB","DATE")=3000106.131524
FIEVAL(2,2,"CSUB","LEVEL OF UNDERSTANDING")=3
FIEVAL(2,2,"CSUB","VALUE")=3
FIEVAL(2,2,"CSUB","VISIT")=3646
FIEVAL(2,2,"DAS")=119
FIEVAL(2,2,"DATE")=3000106.131524
FIEVAL(2,2,"LEVEL OF UNDERSTANDING")=3
FIEVAL(2,2,"VALUE")=3
FIEVAL(2,2,"VISIT")=3646
FIEVAL(2,"COMMENTS")=
FIEVAL(2,"CSUB","COMMENTS")=
FIEVAL(2,"CSUB","DATE")=3000317.08
FIEVAL(2,"CSUB","LEVEL OF UNDERSTANDING")=

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FIEVAL(2,"CSUB","VALUE")=
FIEVAL(2,"CSUB","VISIT")=3787
FIEVAL(2,"DAS")=214
FIEVAL(2,"DATE")=3000317.08
FIEVAL(2,"FILE NUMBER")=9000010.16
FIEVAL(2,"FINDING")=11;AUTTEDT(
FIEVAL(2,"LEVEL OF UNDERSTANDING")=
FIEVAL(2,"VALUE")=
FIEVAL(2,"VISIT")=3787
FIEVAL(3)=1
FIEVAL(3,1)=1
FIEVAL(3,1,"COMMENTS")=
FIEVAL(3,1,"CSUB","COMMENTS")=
FIEVAL(3,1,"CSUB","DATE")=3000317.08
FIEVAL(3,1,"CSUB","LEVEL OF UNDERSTANDING")=
FIEVAL(3,1,"CSUB","VALUE")=
FIEVAL(3,1,"CSUB","VISIT")=3787
FIEVAL(3,1,"DAS")=215
FIEVAL(3,1,"DATE")=3000317.08
FIEVAL(3,1,"LEVEL OF UNDERSTANDING")=
FIEVAL(3,1,"VALUE")=
FIEVAL(3,1,"VISIT")=3787
FIEVAL(3,2)=1
FIEVAL(3,2,"COMMENTS")=
FIEVAL(3,2,"CSUB","COMMENTS")=
FIEVAL(3,2,"CSUB","DATE")=3000000
FIEVAL(3,2,"CSUB","LEVEL OF UNDERSTANDING")=
FIEVAL(3,2,"CSUB","VALUE")=
FIEVAL(3,2,"CSUB","VISIT")=3997
FIEVAL(3,2,"DAS")=210
FIEVAL(3,2,"DATE")=3000000
FIEVAL(3,2,"LEVEL OF UNDERSTANDING")=
FIEVAL(3,2,"VALUE")=
FIEVAL(3,2,"VISIT")=3997
FIEVAL(3,"COMMENTS")=
FIEVAL(3,"CSUB","COMMENTS")=
FIEVAL(3,"CSUB","DATE")=3000317.08
FIEVAL(3,"CSUB","LEVEL OF UNDERSTANDING")=
FIEVAL(3,"CSUB","VALUE")=
FIEVAL(3,"CSUB","VISIT")=3787
FIEVAL(3,"DAS")=215
FIEVAL(3,"DATE")=3000317.08
FIEVAL(3,"FILE NUMBER")=9000010.16
FIEVAL(3,"FINDING")=363;AUTTEDT(
FIEVAL(3,"LEVEL OF UNDERSTANDING")=
FIEVAL(3,"VALUE")=
FIEVAL(3,"VISIT")=3787
FIEVAL(4)=0
FIEVAL(4,"FINDING")=363;AUTTEDT(
FIEVAL(5)=1
FIEVAL(5,1)=1
FIEVAL(5,1,"COMMENTS")=
FIEVAL(5,1,"CSUB","COMMENTS")=
FIEVAL(5,1,"CSUB","DATE")=3000317.08
FIEVAL(5,1,"CSUB","LEVEL OF UNDERSTANDING")=
FIEVAL(5,1,"CSUB","VALUE")=
FIEVAL(5,1,"CSUB","VISIT")=3787
FIEVAL(5,1,"DAS")=203
FIEVAL(5,1,"DATE")=3000317.08
FIEVAL(5,1,"LEVEL OF UNDERSTANDING")=
FIEVAL(5,1,"VALUE")=
FIEVAL(5,1,"VISIT")=3787
FIEVAL(5,"COMMENTS")=

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FIEVAL(5,"CSUB","COMMENTS")=
FIEVAL(5,"CSUB","DATE")=3000317.08
FIEVAL(5,"CSUB","LEVEL OF UNDERSTANDING")=
FIEVAL(5,"CSUB","VALUE")=
FIEVAL(5,"CSUB","VISIT")=3787
FIEVAL(5,"DAS")=203
FIEVAL(5,"DATE")=3000317.08
FIEVAL(5,"FILE NUMBER")=9000010.16
FIEVAL(5,"FINDING")=360;AUTTEDT(
FIEVAL(5,"LEVEL OF UNDERSTANDING")=
FIEVAL(5,"VALUE")=
FIEVAL(5,"VISIT")=3787
FIEVAL(8)=1
FIEVAL(8,1)=1
FIEVAL(8,1,"COMMENTS")=
FIEVAL(8,1,"CSUB","COMMENTS")=
FIEVAL(8,1,"CSUB","DATE")=3000317.08
FIEVAL(8,1,"CSUB","LEVEL OF UNDERSTANDING")=
FIEVAL(8,1,"CSUB","VALUE")=
FIEVAL(8,1,"CSUB","VISIT")=3787
FIEVAL(8,1,"DAS")=201
FIEVAL(8,1,"DATE")=3000317.08
FIEVAL(8,1,"FILE NUMBER")=9000010.16
FIEVAL(8,1,"FINDING")=1;AUTTEDT(
FIEVAL(8,1,"LEVEL OF UNDERSTANDING")=
FIEVAL(8,1,"VALUE")=
FIEVAL(8,1,"VISIT")=3787
FIEVAL(8,2)=1
FIEVAL(8,2,"COMMENTS")=
FIEVAL(8,2,"CSUB","COMMENTS")=
FIEVAL(8,2,"CSUB","DATE")=3000317.08
FIEVAL(8,2,"CSUB","LEVEL OF UNDERSTANDING")=
FIEVAL(8,2,"CSUB","VALUE")=
FIEVAL(8,2,"CSUB","VISIT")=3787
FIEVAL(8,2,"DAS")=214
FIEVAL(8,2,"DATE")=3000317.08
FIEVAL(8,2,"FILE NUMBER")=9000010.16
FIEVAL(8,2,"FINDING")=11;AUTTEDT(
FIEVAL(8,2,"LEVEL OF UNDERSTANDING")=
FIEVAL(8,2,"VALUE")=
FIEVAL(8,2,"VISIT")=3787
FIEVAL(8,3)=1
FIEVAL(8,3,"COMMENTS")=
FIEVAL(8,3,"CSUB","COMMENTS")=
FIEVAL(8,3,"CSUB","DATE")=3000317.08
FIEVAL(8,3,"CSUB","LEVEL OF UNDERSTANDING")=
FIEVAL(8,3,"CSUB","VALUE")=
FIEVAL(8,3,"CSUB","VISIT")=3787
FIEVAL(8,3,"DAS")=215
FIEVAL(8,3,"DATE")=3000317.08
FIEVAL(8,3,"FILE NUMBER")=9000010.16
FIEVAL(8,3,"FINDING")=363;AUTTEDT(
FIEVAL(8,3,"LEVEL OF UNDERSTANDING")=
FIEVAL(8,3,"VALUE")=
FIEVAL(8,3,"VISIT")=3787
FIEVAL(8,"COMMENTS")=
FIEVAL(8,"CSUB","COMMENTS")=
FIEVAL(8,"CSUB","DATE")=3000317.08
FIEVAL(8,"CSUB","LEVEL OF UNDERSTANDING")=
FIEVAL(8,"CSUB","VALUE")=
FIEVAL(8,"CSUB","VISIT")=3787
FIEVAL(8,"DAS")=201
FIEVAL(8,"DATE")=3000317.08

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FIEVAL(8,"FILE NUMBER")=9000010.16
FIEVAL(8,"FINDING")=1;AUTEDT(
FIEVAL(8,"LEVEL OF UNDERSTANDING")=
FIEVAL(8,"TERM")=EDUTEST^^^3001206
FIEVAL(8,"TERM IEN")=660006
FIEVAL(8,"VALUE")=
FIEVAL(8,"VISIT")=3787
FIEVAL("AGE")=1
FIEVAL("AGE",1)=1
FIEVAL("AGE",2)=0
FIEVAL("DFN")=54
FIEVAL("EVAL DATE/TIME")=3081224
FIEVAL("FF1")=0
FIEVAL("FF1","DETAIL")=0^MRD(1,2)>MRD(5)^3000317.08>3000317.08
FIEVAL("FF1","FINDING")=1;PXRMD(802.4,
FIEVAL("FF1","NUMBER")=1
FIEVAL("FF2")=1
FIEVAL("FF2","DETAIL")=1^FI(1)&(FI(4)!FI(5))^1&(0!1)
FIEVAL("FF2","FINDING")=5;PXRMD(802.4,
FIEVAL("FF2","NUMBER")=2
FIEVAL("FF3")=1
FIEVAL("FF3","DETAIL")=1^COUNT(2)>1^2>1
FIEVAL("FF3","FINDING")=2;PXRMD(802.4,
FIEVAL("FF3","NUMBER")=3
FIEVAL("FF4")=0
FIEVAL("FF4","DETAIL")=0^DIFF_DATE(1,2)>625^625>625
FIEVAL("FF4","FINDING")=7;PXRMD(802.4,
FIEVAL("FF4","NUMBER")=4
FIEVAL("PATIENT AGE")=56
FIEVAL("SEX")=1

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Term findings:

Finding 8:

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TFIEVAL(8,1)=1
TFIEVAL(8,1,1)=1
TFIEVAL(8,1,1,"COMMENTS")=
TFIEVAL(8,1,1,"CSUB","COMMENTS")=
TFIEVAL(8,1,1,"CSUB","DATE")=3000317.08
TFIEVAL(8,1,1,"CSUB","LEVEL OF UNDERSTANDING")=
TFIEVAL(8,1,1,"CSUB","VALUE")=
TFIEVAL(8,1,1,"CSUB","VISIT")=3787
TFIEVAL(8,1,1,"DAS")=201
TFIEVAL(8,1,1,"DATE")=3000317.08
TFIEVAL(8,1,1,"LEVEL OF UNDERSTANDING")=
TFIEVAL(8,1,1,"VALUE")=
TFIEVAL(8,1,1,"VISIT")=3787
TFIEVAL(8,1,2)=1
TFIEVAL(8,1,2,"COMMENTS")=
TFIEVAL(8,1,2,"CSUB","COMMENTS")=
TFIEVAL(8,1,2,"CSUB","DATE")=3000217.085926
TFIEVAL(8,1,2,"CSUB","LEVEL OF UNDERSTANDING")=3
TFIEVAL(8,1,2,"CSUB","VALUE")=3
TFIEVAL(8,1,2,"CSUB","VISIT")=3720
TFIEVAL(8,1,2,"DAS")=151
TFIEVAL(8,1,2,"DATE")=3000217.085926
TFIEVAL(8,1,2,"LEVEL OF UNDERSTANDING")=3
TFIEVAL(8,1,2,"VALUE")=3
TFIEVAL(8,1,2,"VISIT")=3720
TFIEVAL(8,1,3)=1
TFIEVAL(8,1,3,"COMMENTS")=
TFIEVAL(8,1,3,"CSUB","COMMENTS")=
TFIEVAL(8,1,3,"CSUB","DATE")=3000202.15
TFIEVAL(8,1,3,"CSUB","LEVEL OF UNDERSTANDING")=3

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TFIEVAL(8,1,3,"CSUB","VALUE")=3
TFIEVAL(8,1,3,"CSUB","VISIT")=3693
TFIEVAL(8,1,3,"DAS")=159
TFIEVAL(8,1,3,"DATE")=3000202.15
TFIEVAL(8,1,3,"LEVEL OF UNDERSTANDING")=3
TFIEVAL(8,1,3,"VALUE")=3
TFIEVAL(8,1,3,"VISIT")=3693
TFIEVAL(8,1,"COMMENTS")=
TFIEVAL(8,1,"CSUB","COMMENTS")=
TFIEVAL(8,1,"CSUB","DATE")=3000317.08
TFIEVAL(8,1,"CSUB","LEVEL OF UNDERSTANDING")=
TFIEVAL(8,1,"CSUB","VALUE")=
TFIEVAL(8,1,"CSUB","VISIT")=3787
TFIEVAL(8,1,"DAS")=201
TFIEVAL(8,1,"DATE")=3000317.08
TFIEVAL(8,1,"FILE NUMBER")=9000010.16
TFIEVAL(8,1,"FINDING")=1;AUTTEDT(
TFIEVAL(8,1,"LEVEL OF UNDERSTANDING")=
TFIEVAL(8,1,"VALUE")=
TFIEVAL(8,1,"VISIT")=3787
TFIEVAL(8,2)=1
TFIEVAL(8,2,1)=1
TFIEVAL(8,2,1,"COMMENTS")=
TFIEVAL(8,2,1,"CSUB","COMMENTS")=
TFIEVAL(8,2,1,"CSUB","DATE")=3000317.08
TFIEVAL(8,2,1,"CSUB","LEVEL OF UNDERSTANDING")=
TFIEVAL(8,2,1,"CSUB","VALUE")=
TFIEVAL(8,2,1,"CSUB","VISIT")=3787
TFIEVAL(8,2,1,"DAS")=214
TFIEVAL(8,2,1,"DATE")=3000317.08
TFIEVAL(8,2,1,"LEVEL OF UNDERSTANDING")=
TFIEVAL(8,2,1,"VALUE")=
TFIEVAL(8,2,1,"VISIT")=3787
TFIEVAL(8,2,2)=1
TFIEVAL(8,2,2,"COMMENTS")=
TFIEVAL(8,2,2,"CSUB","COMMENTS")=
TFIEVAL(8,2,2,"CSUB","DATE")=3000106.131524
TFIEVAL(8,2,2,"CSUB","LEVEL OF UNDERSTANDING")=3
TFIEVAL(8,2,2,"CSUB","VALUE")=3
TFIEVAL(8,2,2,"CSUB","VISIT")=3646
TFIEVAL(8,2,2,"DAS")=119
TFIEVAL(8,2,2,"DATE")=3000106.131524
TFIEVAL(8,2,2,"LEVEL OF UNDERSTANDING")=3
TFIEVAL(8,2,2,"VALUE")=3
TFIEVAL(8,2,2,"VISIT")=3646
TFIEVAL(8,2,3)=1
TFIEVAL(8,2,3,"COMMENTS")=
TFIEVAL(8,2,3,"CSUB","COMMENTS")=
TFIEVAL(8,2,3,"CSUB","DATE")=3000000
TFIEVAL(8,2,3,"CSUB","LEVEL OF UNDERSTANDING")=
TFIEVAL(8,2,3,"CSUB","VALUE")=
TFIEVAL(8,2,3,"CSUB","VISIT")=3997
TFIEVAL(8,2,3,"DAS")=213
TFIEVAL(8,2,3,"DATE")=3000000
TFIEVAL(8,2,3,"LEVEL OF UNDERSTANDING")=
TFIEVAL(8,2,3,"VALUE")=
TFIEVAL(8,2,3,"VISIT")=3997
TFIEVAL(8,2,"COMMENTS")=
TFIEVAL(8,2,"CSUB","COMMENTS")=
TFIEVAL(8,2,"CSUB","DATE")=3000317.08
TFIEVAL(8,2,"CSUB","LEVEL OF UNDERSTANDING")=
TFIEVAL(8,2,"CSUB","VALUE")=
TFIEVAL(8,2,"CSUB","VISIT")=3787

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TFIEVAL(8,2,"DAS")=214
TFIEVAL(8,2,"DATE")=3000317.08
TFIEVAL(8,2,"FILE NUMBER")=9000010.16
TFIEVAL(8,2,"FINDING")=11;AUTTEDT(
TFIEVAL(8,2,"LEVEL OF UNDERSTANDING")=
TFIEVAL(8,2,"VALUE")=
TFIEVAL(8,2,"VISIT")=3787
TFIEVAL(8,3)=1
TFIEVAL(8,3,1)=1
TFIEVAL(8,3,1,"COMMENTS")=
TFIEVAL(8,3,1,"CSUB","COMMENTS")=
TFIEVAL(8,3,1,"CSUB","DATE")=3000317.08
TFIEVAL(8,3,1,"CSUB","LEVEL OF UNDERSTANDING")=
TFIEVAL(8,3,1,"CSUB","VALUE")=
TFIEVAL(8,3,1,"CSUB","VISIT")=3787
TFIEVAL(8,3,1,"DAS")=215
TFIEVAL(8,3,1,"DATE")=3000317.08
TFIEVAL(8,3,1,"LEVEL OF UNDERSTANDING")=
TFIEVAL(8,3,1,"VALUE")=
TFIEVAL(8,3,1,"VISIT")=3787
TFIEVAL(8,3,2)=1
TFIEVAL(8,3,2,"COMMENTS")=
TFIEVAL(8,3,2,"CSUB","COMMENTS")=
TFIEVAL(8,3,2,"CSUB","DATE")=3000000
TFIEVAL(8,3,2,"CSUB","LEVEL OF UNDERSTANDING")=
TFIEVAL(8,3,2,"CSUB","VALUE")=
TFIEVAL(8,3,2,"CSUB","VISIT")=3997
TFIEVAL(8,3,2,"DAS")=210
TFIEVAL(8,3,2,"DATE")=3000000
TFIEVAL(8,3,2,"LEVEL OF UNDERSTANDING")=
TFIEVAL(8,3,2,"VALUE")=
TFIEVAL(8,3,2,"VISIT")=3997
TFIEVAL(8,3,3)=1
TFIEVAL(8,3,3,"COMMENTS")=
TFIEVAL(8,3,3,"CSUB","COMMENTS")=
TFIEVAL(8,3,3,"CSUB","DATE")=2990318.100853
TFIEVAL(8,3,3,"CSUB","LEVEL OF UNDERSTANDING")=
TFIEVAL(8,3,3,"CSUB","VALUE")=
TFIEVAL(8,3,3,"CSUB","VISIT")=2852
TFIEVAL(8,3,3,"DAS")=73
TFIEVAL(8,3,3,"DATE")=2990318.100853
TFIEVAL(8,3,3,"LEVEL OF UNDERSTANDING")=
TFIEVAL(8,3,3,"VALUE")=
TFIEVAL(8,3,3,"VISIT")=2852
TFIEVAL(8,3,"COMMENTS")=
TFIEVAL(8,3,"CSUB","COMMENTS")=
TFIEVAL(8,3,"CSUB","DATE")=3000317.08
TFIEVAL(8,3,"CSUB","LEVEL OF UNDERSTANDING")=
TFIEVAL(8,3,"CSUB","VALUE")=
TFIEVAL(8,3,"CSUB","VISIT")=3787
TFIEVAL(8,3,"DAS")=215
TFIEVAL(8,3,"DATE")=3000317.08
TFIEVAL(8,3,"FILE NUMBER")=9000010.16
TFIEVAL(8,3,"FINDING")=363;AUTTEDT(
TFIEVAL(8,3,"LEVEL OF UNDERSTANDING")=
TFIEVAL(8,3,"VALUE")=
TFIEVAL(8,3,"VISIT")=3787
TFIEVAL(8,4)=1
TFIEVAL(8,4,1)=1
TFIEVAL(8,4,1,"COMMENTS")=
TFIEVAL(8,4,1,"CSUB","COMMENTS")=
TFIEVAL(8,4,1,"CSUB","DATE")=3000211.153525
TFIEVAL(8,4,1,"CSUB","LEVEL OF UNDERSTANDING")=3

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TFIEVAL(8,4,1,"CSUB","VALUE")=3
TFIEVAL(8,4,1,"CSUB","VISIT")=3716
TFIEVAL(8,4,1,"DAS")=147
TFIEVAL(8,4,1,"DATE")=3000211.153525
TFIEVAL(8,4,1,"LEVEL OF UNDERSTANDING")=3
TFIEVAL(8,4,1,"VALUE")=3
TFIEVAL(8,4,1,"VISIT")=3716
TFIEVAL(8,4,2)=1
TFIEVAL(8,4,2,"COMMENTS")=
TFIEVAL(8,4,2,"CSUB","COMMENTS")=
TFIEVAL(8,4,2,"CSUB","DATE")=3000113.160726
TFIEVAL(8,4,2,"CSUB","LEVEL OF UNDERSTANDING")=3
TFIEVAL(8,4,2,"CSUB","VALUE")=3
TFIEVAL(8,4,2,"CSUB","VISIT")=3662
TFIEVAL(8,4,2,"DAS")=132
TFIEVAL(8,4,2,"DATE")=3000113.160726
TFIEVAL(8,4,2,"LEVEL OF UNDERSTANDING")=3
TFIEVAL(8,4,2,"VALUE")=3
TFIEVAL(8,4,2,"VISIT")=3662
TFIEVAL(8,4,"COMMENTS")=
TFIEVAL(8,4,"CSUB","COMMENTS")=
TFIEVAL(8,4,"CSUB","DATE")=3000211.153525
TFIEVAL(8,4,"CSUB","LEVEL OF UNDERSTANDING")=3
TFIEVAL(8,4,"CSUB","VALUE")=3
TFIEVAL(8,4,"CSUB","VISIT")=3716
TFIEVAL(8,4,"DAS")=147
TFIEVAL(8,4,"DATE")=3000211.153525
TFIEVAL(8,4,"FILE NUMBER")=9000010.16
TFIEVAL(8,4,"FINDING")=338;AUTTEDT(
TFIEVAL(8,4,"LEVEL OF UNDERSTANDING")=3
TFIEVAL(8,4,"VALUE")=3
TFIEVAL(8,4,"VISIT")=3716

```

The elements of the ^TMP(PXRMID,\$J) array are:

```

^TMP(PXRMID,$J,660020,"PATIENT COHORT LOGIC")=1^(SEX)&(AGE)^(1)&(1)
^TMP(PXRMID,$J,660020,"REMINDER NAME")=Education Test
^TMP(PXRMID,$J,660020,"RESOLUTION LOGIC")=0^(0)!FI(2)&FF(1)&FF(3)^(0)!1&0&1
^TMP(PXRMID,$J,660020,"zFREQARNG")=1M^25^60^Baseline

```

The elements of the ^TMP("PXRHM",\$J) array are:

```

^TMP("PXRHM",$J,660020,"Education Test")=DUE NOW^DUE NOW^unknown
^TMP("PXRHM",$J,660020,"Education Test","TXT",1)=Frequency: Due every 1 month fo
r ages 25 to 60.
^TMP("PXRHM",$J,660020,"Education Test","TXT",2)=This is the age match text for
age range 25 to 60. Patient is in age
^TMP("PXRHM",$J,660020,"Education Test","TXT",3)=range. Line 2.
^TMP("PXRHM",$J,660020,"Education Test","TXT",4)=This is no match text for 61 to
70, the patient's age is 56.
^TMP("PXRHM",$J,660020,"Education Test","TXT",5)=This is the general cohort foun
d text.
^TMP("PXRHM",$J,660020,"Education Test","TXT",6)=This is the general resolution
not found text. Second line of not
^TMP("PXRHM",$J,660020,"Education Test","TXT",7)=found. Third line of not found.

^TMP("PXRHM",$J,660020,"Education Test","TXT",8)=
^TMP("PXRHM",$J,660020,"Education Test","TXT",9)=Resolution:
^TMP("PXRHM",$J,660020,"Education Test","TXT",10)= Education Topic: Exercise Scr
eening
^TMP("PXRHM",$J,660020,"Education Test","TXT",11)= 03/17/2000
^TMP("PXRHM",$J,660020,"Education Test","TXT",12)= 01/06/2000 level of understa
nding - GOOD
^TMP("PXRHM",$J,660020,"Education Test","TXT",13)=
^TMP("PXRHM",$J,660020,"Education Test","TXT",14)= VA-EXERCISE SCREENING FOUND

```

TEXT. Lets test out some objects. The

^TMP("PXRHM",\$J,660020,"Education Test","TXT",15)= patient was seen on 03/17/00 08:00. His last blood pressure was

^TMP("PXRHM",\$J,660020,"Education Test","TXT",16)= Blood Pressure: 120/76 (01/11/2001 19:24). His last weight was 233

^TMP("PXRHM",\$J,660020,"Education Test","TXT",17)= 1b [105.9 kg] (03/30/2000 14:15).

^TMP("PXRHM",\$J,660020,"Education Test","TXT",18)=

^TMP("PXRHM",\$J,660020,"Education Test","TXT",19)=Information:

^TMP("PXRHM",\$J,660020,"Education Test","TXT",20)= Education Topic: Substance Abuse

^TMP("PXRHM",\$J,660020,"Education Test","TXT",21)= 07/00/1998

^TMP("PXRHM",\$J,660020,"Education Test","TXT",22)= 00/00/2000

^TMP("PXRHM",\$J,660020,"Education Test","TXT",23)= 02/02/2000 level of understanding - GOOD

^TMP("PXRHM",\$J,660020,"Education Test","TXT",24)= 02/17/2000 level of understanding - GOOD

^TMP("PXRHM",\$J,660020,"Education Test","TXT",25)=

^TMP("PXRHM",\$J,660020,"Education Test","TXT",26)= Education Topic: Exercise

^TMP("PXRHM",\$J,660020,"Education Test","TXT",27)= 03/17/2000

^TMP("PXRHM",\$J,660020,"Education Test","TXT",28)= 00/00/2000

^TMP("PXRHM",\$J,660020,"Education Test","TXT",29)=

^TMP("PXRHM",\$J,660020,"Education Test","TXT",30)= Education Topic: Diabetes

^TMP("PXRHM",\$J,660020,"Education Test","TXT",31)= 03/17/2000

^TMP("PXRHM",\$J,660020,"Education Test","TXT",32)=

^TMP("PXRHM",\$J,660020,"Education Test","TXT",33)= Reminder Term: EDUTEST

^TMP("PXRHM",\$J,660020,"Education Test","TXT",34)= Education Topic: Substance Abuse

^TMP("PXRHM",\$J,660020,"Education Test","TXT",35)= 03/17/2000

^TMP("PXRHM",\$J,660020,"Education Test","TXT",36)=

^TMP("PXRHM",\$J,660020,"Education Test","TXT",37)= Education Topic: Exercise Screening

^TMP("PXRHM",\$J,660020,"Education Test","TXT",38)= 03/17/2000

^TMP("PXRHM",\$J,660020,"Education Test","TXT",39)=

^TMP("PXRHM",\$J,660020,"Education Test","TXT",40)= Education Topic: Exercise

^TMP("PXRHM",\$J,660020,"Education Test","TXT",41)= 03/17/2000

^TMP("PXRHM",\$J,660020,"Education Test","TXT",42)=

Formatted Output:

	--STATUS--	--DUE DATE--	--LAST DONE--
Education Test		DUE NOW	DUE NOW
			unknown

Frequency: Due every 1 month for ages 25 to 60.

This is the age match text for age range 25 to 60. Patient is in age range. Line 2.

This is no match text for 61 to 70, the patient's age is 56.

This is the general cohort found text.

This is the general resolution not found text. Second line of not found. Third line of not found.

Resolution:

Education Topic: Exercise Screening

03/17/2000

01/06/2000 level of understanding - GOOD

VA-EXERCISE SCREENING FOUND TEXT. Lets test out some objects. The patient was seen on 03/17/00 08:00. His last blood pressure was Blood Pressure: 120/76 (01/11/2001 19:24). His last weight was 233 lb [105.9 kg] (03/30/2000 14:15).

Information:

Education Topic: Substance Abuse
07/00/1998
00/00/2000
02/02/2000 level of understanding - GOOD
02/17/2000 level of understanding - GOOD

Education Topic: Exercise
03/17/2000
00/00/2000

Education Topic: Diabetes
03/17/2000

Reminder Term: EDUTEST
Education Topic: Substance Abuse
03/17/2000

Education Topic: Exercise Screening
03/17/2000

Education Topic: Exercise
03/17/2000

Reminder Test Explained

There are three sections in this output. We will go through them individually.

The first section is the FIEVAL (Finding EVALuation) array, which corresponds to the findings in the reminder definition. If we look back at our definition inquiry, we see there are 11 findings in this reminder.

- Five Education Topics
- One Reminder Term

The entries in FIEVAL(1) show us what was found for finding 1:

The elements of the FIEVAL array are:

```
FIEVAL(1)=1
FIEVAL(1,1)=1
FIEVAL(1,1,"COMMENTS")=
FIEVAL(1,1,"CSUB","COMMENTS")=
FIEVAL(1,1,"CSUB","DATE")=2980700
FIEVAL(1,1,"CSUB","LEVEL OF UNDERSTANDING")=
FIEVAL(1,1,"CSUB","VALUE")=
FIEVAL(1,1,"CSUB","VISIT")=3935
FIEVAL(1,1,"DAS")=200
FIEVAL(1,1,"DATE")=2980700
FIEVAL(1,1,"LEVEL OF UNDERSTANDING")=
FIEVAL(1,1,"VALUE")=
FIEVAL(1,1,"VISIT")=3935
FIEVAL(1,2)=1
FIEVAL(1,2,"COMMENTS")=
FIEVAL(1,2,"CSUB","COMMENTS")=
FIEVAL(1,2,"CSUB","DATE")=3000000
FIEVAL(1,2,"CSUB","LEVEL OF UNDERSTANDING")=
FIEVAL(1,2,"CSUB","VALUE")=
FIEVAL(1,2,"CSUB","VISIT")=3997
FIEVAL(1,2,"DAS")=212
FIEVAL(1,2,"DATE")=3000000
FIEVAL(1,2,"LEVEL OF UNDERSTANDING")=
FIEVAL(1,2,"VALUE")=
FIEVAL(1,2,"VISIT")=3997
FIEVAL(1,3)=1
FIEVAL(1,3,"COMMENTS")=
FIEVAL(1,3,"CSUB","COMMENTS")=
FIEVAL(1,3,"CSUB","DATE")=3000202.15
FIEVAL(1,3,"CSUB","LEVEL OF UNDERSTANDING")=3
FIEVAL(1,3,"CSUB","VALUE")=3
FIEVAL(1,3,"CSUB","VISIT")=3693
FIEVAL(1,3,"DAS")=159
FIEVAL(1,3,"DATE")=3000202.15
FIEVAL(1,3,"LEVEL OF UNDERSTANDING")=3
FIEVAL(1,3,"VALUE")=3
FIEVAL(1,3,"VISIT")=3693
FIEVAL(1,4)=1
FIEVAL(1,4,"COMMENTS")=
FIEVAL(1,4,"CSUB","COMMENTS")=
FIEVAL(1,4,"CSUB","DATE")=3000217.085926
FIEVAL(1,4,"CSUB","LEVEL OF UNDERSTANDING")=3
FIEVAL(1,4,"CSUB","VALUE")=3
FIEVAL(1,4,"CSUB","VISIT")=3720
FIEVAL(1,4,"DAS")=151
FIEVAL(1,4,"DATE")=3000217.085926
FIEVAL(1,4,"LEVEL OF UNDERSTANDING")=3
```

The 1 tells us the finding is true.
A 0 would mean it is false.

This is the first occurrence of finding 1.
There are four occurrences.

The date of the finding in FileMan
format.

This is the second occurrence of
finding 1.

This entry in the Visit File is
3997.

This section shows the final value
for the three occurrences.

```

FIEVAL(1,4,"VALUE")=3
FIEVAL(1,4,"VISIT")=3720
FIEVAL(1,"COMMENTS")=
FIEVAL(1,"CSUB","COMMENTS")=
FIEVAL(1,"CSUB","DATE")=2980700
FIEVAL(1,"CSUB","LEVEL OF UNDERSTANDING")=
FIEVAL(1,"CSUB","VALUE")=
FIEVAL(1,"CSUB","VISIT")=3935
FIEVAL(1,"DAS")=200
FIEVAL(1,"DATE")=2980700
FIEVAL(1,"FILE NUMBER")=9000010.16
FIEVAL(1,"FINDING")=1;AUTTEDT(
FIEVAL(1,"LEVEL OF UNDERSTANDING")=
FIEVAL(1,"VALUE")=
FIEVAL(1,"VISIT")=3935

```

200 is the DA string in the Patient Education file/education topic (see the Patch 12 technical manual for info on the DA strings.)

NOTE: Each array element that contains a “CSUB” (Condition Subscript) element can be used in a Condition statement, so for this finding, we could use V(“COMMENTS”), V(“LEVEL OF UNDERSTANDING”), V(“VALUE”), or V(“VISIT”) in the Condition. See page [100](#) for more information.

NOTE: When a Reminder Test is run, some elements of the FIEVAL array have a “*CSUB*” subscript. Example for an orderable item finding:

```

FIEVAL(5,"CSUB","DURATION")=1774
FIEVAL(5,"CSUB","ORDER")=3366^CA ULTRA^546;99RAP
FIEVAL(5,"CSUB","RELEASE DATE")=3010917.1625
FIEVAL(5,"CSUB","START DATE")=3010917
FIEVAL(5,"CSUB","STATUS")=PENDING
FIEVAL(5,"CSUB","STOP DATE")=
FIEVAL(5,"CSUB","VALUE")=PENDING

```

Each of the subscripts following “CSUB” may be used in a Condition (hence the abbreviation Condition SUBscript). For example:

```
I V("DURATION")>90
```

The use of “CSUB” data has expanded beyond Condition statements.

Below is a snippet of how the evaluation appears if “Yes” is entered at the prompt “Display all term findings”.

Note that this is not the complete reminder test output. Only the vital parts of the reminder test output are displayed here, to save on space. In a live situation, you will have the entire reminder test output displayed, which can be lengthy.

```
Display all term findings? N// YES
```

```

The elements of the FIEVAL array are:
FIEVAL(1)=1
FIEVAL(1,1)=1
FIEVAL(1,1,"CLINICAL TERM")=
FIEVAL(1,1,"CODEP")=12989

```

```

FIEVAL(1,1,"COMMENTS")=
FIEVAL(1,1,"CONDITION")=1
FIEVAL(1,1,"CSUB","CLINICAL TERM")=
FIEVAL(1,1,"CSUB","COMMENTS")=
FIEVAL(1,1,"CSUB","DATE OF INJURY")=
FIEVAL(1,1,"CSUB","MODIFIER")=
FIEVAL(1,1,"CSUB","PRIMARY/SECONDARY")=S
FIEVAL(1,1,"CSUB","PROBLEM LIST ENTRY")=
FIEVAL(1,1,"CSUB","PROVIDER NARRATIVE")=3906
FIEVAL(1,1,"CSUB","VISIT")=5161991
FIEVAL(1,1,"DAS")=3238132
FIEVAL(1,1,"DATE")=3050615.103
FIEVAL(1,1,"DATE OF INJURY")=
FIEVAL(1,1,"FILE NUMBER")=9000010.07
FIEVAL(1,1,"FILE SPECIFIC")=S
FIEVAL(1,1,"FINDING")=52;PXD(811.2,
FIEVAL(1,1,"MODIFIER")=
FIEVAL(1,1,"PRIMARY/SECONDARY")=S
FIEVAL(1,1,"PROBLEM LIST ENTRY")=
FIEVAL(1,1,"PROVIDER NARRATIVE")=3906
FIEVAL(1,1,"VISIT")=5161991
FIEVAL(1,2)=1
FIEVAL(1,2,"CLINICAL TERM")=
FIEVAL(1,2,"CODEP")=2507
FIEVAL(1,2,"COMMENTS")=
FIEVAL(1,2,"CONDITION")=1
FIEVAL(1,2,"CSUB","CLINICAL TERM")=
FIEVAL(1,2,"CSUB","COMMENTS")=
FIEVAL(1,2,"CSUB","DATE OF INJURY")=
FIEVAL(1,2,"CSUB","MODIFIER")=
FIEVAL(1,2,"CSUB","PRIMARY/SECONDARY")=P
FIEVAL(1,2,"CSUB","PROBLEM LIST ENTRY")=
FIEVAL(1,2,"CSUB","PROVIDER NARRATIVE")=1082
FIEVAL(1,2,"CSUB","VISIT")=3970337
FIEVAL(1,2,"DAS")=1896973
FIEVAL(1,2,"DATE")=3020913.131038
FIEVAL(1,2,"DATE OF INJURY")=
FIEVAL(1,2,"FILE NUMBER")=9000010.07
FIEVAL(1,2,"FILE SPECIFIC")=P
FIEVAL(1,2,"FINDING")=52;PXD(811.2,
FIEVAL(1,2,"MODIFIER")=
FIEVAL(1,2,"PRIMARY/SECONDARY")=P
FIEVAL(1,2,"PROBLEM LIST ENTRY")=
FIEVAL(1,2,"PROVIDER NARRATIVE")=1082
FIEVAL(1,2,"VISIT")=3970337
FIEVAL(1,3)=1
FIEVAL(1,3,"CLINICAL TERM")=
FIEVAL(1,3,"CODEP")=2507
FIEVAL(1,3,"COMMENTS")=
FIEVAL(1,3,"CONDITION")=1
FIEVAL(1,3,"CSUB","CLINICAL TERM")=
FIEVAL(1,3,"CSUB","COMMENTS")=
FIEVAL(1,3,"CSUB","DATE OF INJURY")=
FIEVAL(1,3,"CSUB","MODIFIER")=
FIEVAL(1,3,"CSUB","PRIMARY/SECONDARY")=P
FIEVAL(1,3,"CSUB","PROBLEM LIST ENTRY")=
FIEVAL(1,3,"CSUB","PROVIDER NARRATIVE")=1082
FIEVAL(1,3,"CSUB","VISIT")=3967489
FIEVAL(1,3,"DAS")=1893712
FIEVAL(1,3,"DATE")=3020911.131046
FIEVAL(1,3,"DATE OF INJURY")=
FIEVAL(1,3,"FILE NUMBER")=9000010.07
FIEVAL(1,3,"FILE SPECIFIC")=P

```

```

FIEVAL(1,3,"FINDING")=52;PXD(811.2,
FIEVAL(1,3,"MODIFIER")=
FIEVAL(1,3,"PRIMARY/SECONDARY")=P
FIEVAL(1,3,"PROBLEM LIST ENTRY")=
FIEVAL(1,3,"PROVIDER NARRATIVE")=1082
FIEVAL(1,3,"VISIT")=3967489
FIEVAL(1,"CLINICAL TERM")=
FIEVAL(1,"CODEP")=12989
FIEVAL(1,"COMMENTS")=
FIEVAL(1,"CONDITION")=1
FIEVAL(1,"CSUB","CLINICAL TERM")=
FIEVAL(1,"CSUB","COMMENTS")=
FIEVAL(1,"CSUB","DATE OF INJURY")=
FIEVAL(1,"CSUB","MODIFIER")=
FIEVAL(1,"CSUB","PRIMARY/SECONDARY")=S
FIEVAL(1,"CSUB","PROBLEM LIST ENTRY")=
FIEVAL(1,"CSUB","PROVIDER NARRATIVE")=3906
FIEVAL(1,"CSUB","VISIT")=5161991
FIEVAL(1,"DAS")=3238132
FIEVAL(1,"DATE")=3050615.103
FIEVAL(1,"DATE OF INJURY")=
FIEVAL(1,"FILE NUMBER")=9000010.07
FIEVAL(1,"FILE SPECIFIC")=S
FIEVAL(1,"FINDING")=52;PXD(811.2,
FIEVAL(1,"MODIFIER")=
FIEVAL(1,"PRIMARY/SECONDARY")=S
FIEVAL(1,"PROBLEM LIST ENTRY")=
FIEVAL(1,"PROVIDER NARRATIVE")=3906
FIEVAL(1,"TERM")=VA-IHD DIAGNOSIS^^^3010723
FIEVAL(1,"TERM IEN")=26
FIEVAL(1,"VISIT")=5161991
FIEVAL(2)=0
FIEVAL(3)=0
FIEVAL(3,"TERM")=VA-OUTSIDE LDL <100^^^3011113
FIEVAL(3,"TERM IEN")=35
FIEVAL(4)=0
FIEVAL(4,"TERM")=VA-OUTSIDE LDL 100-119^^^3010910
FIEVAL(4,"TERM IEN")=34
FIEVAL(5)=0
FIEVAL(5,"TERM")=VA-OUTSIDE LDL 120-129^^^3010925
FIEVAL(5,"TERM IEN")=52
FIEVAL(6)=0
FIEVAL(6,"TERM")=VA-OUTSIDE LDL >129^^^3011113
FIEVAL(6,"TERM IEN")=36
FIEVAL(7)=0
FIEVAL(7,"TERM")=VA-ORDER LIPID PROFILE HEALTH FACTOR^^^3020131
FIEVAL(7,"TERM IEN")=61
FIEVAL(8)=0
FIEVAL(8,"TERM")=VA-REFUSED LIPID PROFILE^^^3011022
FIEVAL(8,"TERM IEN")=40
FIEVAL(9)=0
FIEVAL(9,"TERM")=VA-OTHER DEFER LIPID PROFILE^^^3011022
FIEVAL(9,"TERM IEN")=41
FIEVAL(10)=0
FIEVAL(10,"TERM")=VA-UNCONFIRMED IHD DIAGNOSIS^^^3011017
FIEVAL(10,"TERM IEN")=42
FIEVAL(12)=0
FIEVAL(12,"TERM")=VA-LIPID LOWERING MEDS^^^3011007
FIEVAL(12,"TERM IEN")=54
FIEVAL(14)=0
FIEVAL("AGE")=1
FIEVAL("AGE",1)=1
FIEVAL("DFN")=36167

```

```

FIEVAL("EVAL DATE/TIME")=3060125
FIEVAL("FF1")=1
FIEVAL("FF1","FINDING")=1;PXRMD(802.4,
FIEVAL("FF1","NAME")=
FIEVAL("FF1","VALUE")=1
FIEVAL("PATIENT AGE")=86
FIEVAL("SEX")=1

Term findings:
Finding 1:
TFIEVAL(1,1)=1
TFIEVAL(1,1,1)=1
TFIEVAL(1,1,1,"CLINICAL TERM")=
TFIEVAL(1,1,1,"CODEP")=12989
TFIEVAL(1,1,1,"COMMENTS")=
TFIEVAL(1,1,1,"CONDITION")=1
TFIEVAL(1,1,1,"CSUB","CLINICAL TERM")=
TFIEVAL(1,1,1,"CSUB","COMMENTS")=
TFIEVAL(1,1,1,"CSUB","DATE OF INJURY")=
TFIEVAL(1,1,1,"CSUB","MODIFIER")=
TFIEVAL(1,1,1,"CSUB","PRIMARY/SECONDARY")=S
TFIEVAL(1,1,1,"CSUB","PROBLEM LIST ENTRY")=
TFIEVAL(1,1,1,"CSUB","PROVIDER NARRATIVE")=3906
TFIEVAL(1,1,1,"CSUB","VISIT")=5161991
TFIEVAL(1,1,1,"DAS")=3238132
TFIEVAL(1,1,1,"DATE")=3050615.103
TFIEVAL(1,1,1,"DATE OF INJURY")=
TFIEVAL(1,1,1,"FILE NUMBER")=9000010.07
TFIEVAL(1,1,1,"FILE SPECIFIC")=S
TFIEVAL(1,1,1,"FINDING")=52;PXD(811.2,
TFIEVAL(1,1,1,"MODIFIER")=
TFIEVAL(1,1,1,"PRIMARY/SECONDARY")=S
TFIEVAL(1,1,1,"PROBLEM LIST ENTRY")=
TFIEVAL(1,1,1,"PROVIDER NARRATIVE")=3906
TFIEVAL(1,1,1,"VISIT")=5161991
TFIEVAL(1,1,2)=1
TFIEVAL(1,1,2,"CLINICAL TERM")=
TFIEVAL(1,1,2,"CODEP")=2507
TFIEVAL(1,1,2,"COMMENTS")=
TFIEVAL(1,1,2,"CONDITION")=1
TFIEVAL(1,1,2,"CSUB","CLINICAL TERM")=
TFIEVAL(1,1,2,"CSUB","COMMENTS")=
TFIEVAL(1,1,2,"CSUB","DATE OF INJURY")=
TFIEVAL(1,1,2,"CSUB","MODIFIER")=
TFIEVAL(1,1,2,"CSUB","PRIMARY/SECONDARY")=P
TFIEVAL(1,1,2,"CSUB","PROBLEM LIST ENTRY")=
TFIEVAL(1,1,2,"CSUB","PROVIDER NARRATIVE")=1082
TFIEVAL(1,1,2,"CSUB","VISIT")=3970337
TFIEVAL(1,1,2,"DAS")=1896973
TFIEVAL(1,1,2,"DATE")=3020913.131038
TFIEVAL(1,1,2,"DATE OF INJURY")=
TFIEVAL(1,1,2,"FILE NUMBER")=9000010.07
TFIEVAL(1,1,2,"FILE SPECIFIC")=P
TFIEVAL(1,1,2,"FINDING")=52;PXD(811.2,
TFIEVAL(1,1,2,"MODIFIER")=
TFIEVAL(1,1,2,"PRIMARY/SECONDARY")=P
TFIEVAL(1,1,2,"PROBLEM LIST ENTRY")=
TFIEVAL(1,1,2,"PROVIDER NARRATIVE")=1082
TFIEVAL(1,1,2,"VISIT")=3970337
TFIEVAL(1,1,3)=1
TFIEVAL(1,1,3,"CLINICAL TERM")=
TFIEVAL(1,1,3,"CODEP")=2507
TFIEVAL(1,1,3,"COMMENTS")=

```

```

TFIEVAL(1,1,3,"CONDITION")=1
TFIEVAL(1,1,3,"CSUB","CLINICAL TERM")=
TFIEVAL(1,1,3,"CSUB","COMMENTS")=
TFIEVAL(1,1,3,"CSUB","DATE OF INJURY")=
TFIEVAL(1,1,3,"CSUB","MODIFIER")=
TFIEVAL(1,1,3,"CSUB","PRIMARY/SECONDARY")=P
TFIEVAL(1,1,3,"CSUB","PROBLEM LIST ENTRY")=
TFIEVAL(1,1,3,"CSUB","PROVIDER NARRATIVE")=1082
TFIEVAL(1,1,3,"CSUB","VISIT")=3967489
TFIEVAL(1,1,3,"DAS")=1893712
TFIEVAL(1,1,3,"DATE")=3020911.131046
TFIEVAL(1,1,3,"DATE OF INJURY")=
TFIEVAL(1,1,3,"FILE NUMBER")=9000010.07
TFIEVAL(1,1,3,"FILE SPECIFIC")=P
TFIEVAL(1,1,3,"FINDING")=52;PXD(811.2,
TFIEVAL(1,1,3,"MODIFIER")=
TFIEVAL(1,1,3,"PRIMARY/SECONDARY")=P
TFIEVAL(1,1,3,"PROBLEM LIST ENTRY")=
TFIEVAL(1,1,3,"PROVIDER NARRATIVE")=1082
TFIEVAL(1,1,3,"VISIT")=3967489
TFIEVAL(1,1,"CLINICAL TERM")=
TFIEVAL(1,1,"CODEP")=12989
TFIEVAL(1,1,"COMMENTS")=
TFIEVAL(1,1,"CONDITION")=1
TFIEVAL(1,1,"CSUB","CLINICAL TERM")=
TFIEVAL(1,1,"CSUB","COMMENTS")=
TFIEVAL(1,1,"CSUB","DATE OF INJURY")=
TFIEVAL(1,1,"CSUB","MODIFIER")=
TFIEVAL(1,1,"CSUB","PRIMARY/SECONDARY")=S
TFIEVAL(1,1,"CSUB","PROBLEM LIST ENTRY")=
TFIEVAL(1,1,"CSUB","PROVIDER NARRATIVE")=3906
TFIEVAL(1,1,"CSUB","VISIT")=5161991
TFIEVAL(1,1,"DAS")=3238132
TFIEVAL(1,1,"DATE")=3050615.103
TFIEVAL(1,1,"DATE OF INJURY")=
TFIEVAL(1,1,"FILE NUMBER")=9000010.07
TFIEVAL(1,1,"FILE SPECIFIC")=S
TFIEVAL(1,1,"FINDING")=52;PXD(811.2,
TFIEVAL(1,1,"MODIFIER")=
TFIEVAL(1,1,"PRIMARY/SECONDARY")=S
TFIEVAL(1,1,"PROBLEM LIST ENTRY")=
TFIEVAL(1,1,"PROVIDER NARRATIVE")=3906
TFIEVAL(1,1,"VISIT")=5161991

```

Formatted Output:

	--STATUS--	--DUE DATE--	--LAST DONE--
IHD Lipid Profile	DUE NOW	DUE NOW	unknown

Frequency: Due every 1 year

Cohort:

Reminder Term: VA-IHD DIAGNOSIS

Encounter Diagnosis:

06/15/2005 414.00 COR ATHEROSCL UNSP TYP-VES rank: SECONDARY
09/13/2002 414.9 CHR ISCHEMIC HRT DIS NOS rank: PRIMARY
Prov. Narr. - CHRONIC ISCHEMIC HEART DISEASE, UNSPECIFIED
09/11/2002 414.9 CHR ISCHEMIC HRT DIS NOS rank: PRIMARY
Prov. Narr. - CHRONIC ISCHEMIC HEART DISEASE, UNSPECIFIED

Parts of the reminder test have been removed for brevity's sake. Under the Term Evaluation part of the reminder test, you will notice the TFIEVAL and subscripts. This looks very similar to the results of the

FIEVAL, except that it is the results of each mapped finding within the term. There is a minimum of two subscripts for each mapped finding. The first subscript is the number of the actual finding (the term). The second subscript is the number of the mapped finding. In this instance, the evaluation of the mapped finding is “True.”

TFIEVAL(1,1)=1

Sometimes there may be three subscripts. This third subscript is the occurrence of the mapped finding. In the above example (the complete reminder test output), you will notice there are three occurrences for mapped finding number 1. This is because the reminder term has an occurrence count of 3. This is also displayed in the clinical maintenance section of the reminder test output.

Note: The “CSUB” values of an occurrence of a mapped finding can be used as a condition of a finding just as the “CSUB” values of a regular finding can be.

```
TFIEVAL(1,1,1)=1
TFIEVAL(1,1,1,"CLINICAL TERM")=
TFIEVAL(1,1,1,"CODEP")=12989
TFIEVAL(1,1,1,"COMMENTS")=
TFIEVAL(1,1,1,"CONDITION")=1
TFIEVAL(1,1,1,"CSUB","CLINICAL TERM")=
TFIEVAL(1,1,1,"CSUB","COMMENTS")=
TFIEVAL(1,1,1,"CSUB","DATE OF INJURY")=
TFIEVAL(1,1,1,"CSUB","MODIFIER")=
TFIEVAL(1,1,1,"CSUB","PRIMARY/SECONDARY")=S
TFIEVAL(1,1,1,"CSUB","PROBLEM LIST ENTRY")=
TFIEVAL(1,1,1,"CSUB","PROVIDER NARRATIVE")=3906
TFIEVAL(1,1,1,"CSUB","VISIT")=5161991
TFIEVAL(1,1,1,"DAS")=3238132
TFIEVAL(1,1,1,"DATE")=3050615.103
TFIEVAL(1,1,1,"DATE OF INJURY")=
TFIEVAL(1,1,1,"FILE NUMBER")=9000010.07
TFIEVAL(1,1,1,"FILE SPECIFIC")=S
TFIEVAL(1,1,1,"FINDING")=52;PXD(811.2,
TFIEVAL(1,1,1,"MODIFIER")=
TFIEVAL(1,1,1,"PRIMARY/SECONDARY")=S
TFIEVAL(1,1,1,"PROBLEM LIST ENTRY")=
TFIEVAL(1,1,1,"PROVIDER NARRATIVE")=3906
TFIEVAL(1,1,1,"VISIT")=5161991
```

Testing in Health Summary

The following are steps for testing reminders in Health Summary:

1. Activate Clinical Reminders components in the Health Summary Component file. Create a Health Summary Type for testing new reminders being defined.
2. Add the Maintenance and Reminder components to the reminder Health Summary Type.
3. Select the reminder definition(s) to be tested in the selection items prompt from Clinical Maintenance and Clinical Reminder components.
4. If you can't select the clinical reminder components for the Health Summary, the components must be enabled for use, and the "Rebuild Ad Hoc Health Summary Type" option must be run.
5. Use the Print Health Summary Menu, "Patient Health Summary" option to begin testing the component for individual patients.
6. Find patients with data in **VISTA** that should match the reminder definitions, as well as some that won't have data matches.
7. Assess the reminder results: Are the age range and frequency evaluation working? Are the target findings found, taxonomy findings found, and health factors found presenting the actual data found for patients that you know may have some results? When there is no data found, are the no-match comments being displayed (if defined)? Are pertinent negative alterations of the age and frequency criteria working as expected based on taxonomy or health factor findings?

Use the Print Health Summary Menu, "Hospital Location Health Summary" option to print the reminders for a clinic, based on a recently passed date range, or next week's date range. Did the Health Summary print run to completion without any errors?

Reminder Evaluation in CPRS

Clinical Reminders Managers or clinicians can use the Reminder evaluation utility that's available in the CPRS GUI to test reminders and dialogs as they are created.

HINT: Keeping one or more terminal emulator (e.g., KEA) screens open with the List Manager Reminder Management menu, along with an open CPRS window, is an effective way to work as you are creating working reminders and dialogs, to ensure that your definitions are appropriate. You can use both the Evaluate Reminder and Refresh options on the Action (or right-click) menu to see the effects of your changes.

There are two forms of the Reminder Evaluation option, for use before and after processing reminders.

Evaluate Reminder

Before you process a reminder, you can select this option to see if specific reminders in the Other Category folder should be Applicable or should be Due for the selected patient.

For example, in a diabetic clinic, you might see a patient around flu season and evaluate the flu shot reminder in the other category to see if a flu shot is needed.

To evaluate reminders, right-click in a tree view (from the Reminders Button or Drawer) and select Evaluate Reminder.

Evaluate Processed Reminders

After you have processed a reminder, you can use this option to see if your actions during the encounter satisfied the reminder.

Satisfying a reminder may require more than you originally think. You may want to evaluate the reminders after you have processed them to make sure you have satisfied the reminder.

NOTE: PCE data may take a few minutes to be correctly recorded. Please wait a few minutes after processing a reminder before evaluating it again to ensure that it was satisfied.

To evaluate processed reminders, choose Action in the Available Reminders window, and then click on Evaluate Processed Reminders.

General Testing of Clinical Reminders

(Thanks to Kathryn C. Corrigan, MD, ACOS Ambulatory Care, Tampa VAMC, from 2007 VeHU presentation)

The accuracy of clinical display of reminders as well as the accuracy of reports is dependent upon creation and implementation of accurate reminders. One critical role of the reminders champion is assisting the clinical informatics specialist in testing the reminder.

In this portion of the presentation, I would like to introduce some general concepts of "testing." This is not meant to be a detailed instruction manual on testing. I would refer you to the clinical reminders coordinator at your site for more details.

In general, when testing a clinical reminder, you want to test the reminder on patients who fit the cohort definition as well as on patients who do NOT fit the cohort definition. Is the reminder applicable when it

should be? You also want to test the reminder for patients who are in cohort and have the reminder resolved as well as for patients who are in cohort and do NOT have the reminder resolved. In the first round, this is usually best done using test patients set up by clinical informatics. This is usually done in a test account which is a mirror image of the production account at your site.

Testing can be done by using the reminder test on an individual patient. The reminder Test is a clinical reminders menu option available in Vista which gives detailed information on findings, file locations where the data has been found, logic and other highly technical information. It is generally not understandable by a non-techie

Most clinicians will find using CPRS to determine if the reminder is due most helpful. The information in the Reminder Maintenance can be analyzed during testing as well as troubleshooting to determine why a specific reminder is due for a specific patient and what resolves the reminder.

An important step is testing the reminder Dialog. The clinician should test all groups and elements in a dialog to ensure that the dialog text is clear, concise, and accurate and that the dialog works as expected. Next, the dialog should be carefully tested to ensure that the progress note text which is inserted is clear, concise, and accurate. Checking the spelling is tedious but important.

The dialog should also be tested to analyze if anything is missing. Think like a clinician: When I see patients in the clinic, which patients obviously can't have this procedure either because it is impossible or it is not indicated. A clear example is the diabetic foot exam. On first pass, most clinicians would say it's due for ALL patient with diabetes. However, it is technically not possible to perform a monofilament exam on a patient with bilateral amputees. It is also not clinically useful to perform this exam on a diabetic with a spinal cord injury which has resulted in loss of sensation to the lower extremities. Assuming the reminder passes the testing in the first phase, it is reasonable to move on to a second phase in the test account using reminders reports

Run detailed reports for short interval in a clinic where you would expect to have the reminder due. For example;

- Diabetes clinic for A1C>9 (Many uncontrolled diabetics would expect to be referred to diabetes clinic)
- Comp and Pension Clinic (high likelihood of patients who are not enrolled in primary care and may not have had reminders addressed)

Run a report listing all patients in the clinic. Check CPRS for accuracy for patients who have the reminder due and who do not have the reminder due.

Run summary and/or detailed reports in a clinic where you expect a specific reminder to be resolved. Example:

- There is a high likelihood that close to 100% of all patients seen in Retinal clinic have had a retinal examination done.

Another good clinic to check is a primary care provider whom you know to be diligent in processing clinical reminders who also has stable patient panel and is not seeing a lot of new patients.

Clinically review records as needed.

Other Supporting Menus

This menu and its options are included on the Clinical Reminders Manager Menu to provide easier access to related tools from other **VISTA** packages for setting up and maintaining clinical reminders.

Synonym	Option	Option Name	Description
TM	PCE Table Maintenance	PXTT TABLE MAINTENANCE	The options on this menu are used to add or edit the clinical terminology used to represent types of data to be collected by PCE such as Health Factors, Patient Education, Immunizations, Skin Tests, etc.
PC	PCE Coordinator Menu	PX PCE COORDINATOR MENU	This menu for PCE ADPACS includes all of the user interface options as well as the options for file maintenance.
HS	Health Summary Coordinator's Menu	GMTS COORDINATOR	This menu includes options for creating Health Summaries, Health Summary Types, and the option to set parameters for nightly batch printing of Health Summaries by Location. NOTE: When making Clinical Reminder option assignments, consider the assignment of the GMTS COORDINATOR menu option as a separate issue, leaving it or removing it from the Clinical Reminder menu as desired.
EF	Print Blank Encounter Form	IBDF PRINT BLNK ENCOUNTER FORM	This option allows the user to select a clinic, and if an encounter form is defined for use with an embossed patient card, the form will be printed.
QO	Enter/edit quick orders	ORCM QUICK ORDERS	This option lets you create or change quick orders.

Reminder Information Only Menu

This menu contains options for users who need information about reminders, but do not need the ability to make changes. Most of the options are described previously in this manual.

Synonym	Option	Option Name	Description
RL	List Reminder Definitions	PXRM DEFINITION LIST	This option provides a brief summary of selected Clinical Reminder definitions.
RI	Inquire about Reminder Definition	PXRM DEFINITION INQUIRY	Allows a user to display a clinical reminder definition in an easy to read format.
TXL	List Taxonomy Definitions	PXRM TAXONOMY LIST	This option lists the current definitions of all the taxonomies defined in the REMINDER TAXONOMY file.
TXI	Inquire about Taxonomy Item	PXRM TAXONOMY INQUIRY	This option provides a detailed report of a Taxonomy item's definition.
TRI	List Reminder Terms	PXRM TERM LIST	This option is used to give a brief listing of reminder terms.
TR	Inquire about Reminder Term	PXRM TERM INQUIRY	This option allows a user to display the contents of a reminder term in an easy to read format.
SL	List Reminder Sponsors	PXRM SPONSOR LIST	This option is used to get a list of Reminder Sponsors.

Reminder Dialog Management

Reminder Dialogs are used in CPRS to allow clinicians to select actions that satisfy or resolve reminders for a patient. Information entered through reminder dialogs update progress notes, place orders, and update other data in the patient's medical record.

A reminder dialog is created by the assembly of elements in groups into an orderly display, which is seen by the user in the CPRS GUI.

Changes to Reminder Dialogs in Patch 18

- A new report, PXRMDIALOGCHECKER ALL, was added to the Dialog Reports Menu. It checks all active reminder dialogs for invalid items.
- As a result of Remedy ticket #418968, dialog loading was changed to look for prompts when loading a reminder taxonomy in a dialog. If prompts are defined, then they will display in CPRS instead of the default prompts defined in the reminder finding parameter file. Also, a SUPPRESS ALL PROMPTS prompt was added to the group and element editors. This prompt only shows when a taxonomy is used as a finding item. If the value is set to YES, then no prompts will show in CPRS when using a taxonomy in a dialog.

Changes to Reminder Dialogs in Patch 12

- A new option "Check Reminder Dialog for invalid items" has been added to the Dialog Report Menu. This option scans the selected dialog items for invalid sub-items, findings, TIU Objects, and/or TIU Templates. If any invalid items are found in the dialog, the results will be displayed to the user. This option allows for any dialog items to be selected, except for Additional Prompts and Forced Values.
- Changes to reminder dialog functionality to support Data Standardization of the Immunization and Skin Test Files:
 1. When a file update is received, reminder dialogs will replace any pre-existing finding items with a new finding item, if there is a one-to-one match and if the file is in an HDI Status of 6 (VOID IMPLEMENTATION COMPLETED AT FACILITY) or 7 (TERM/CONCEPT MAPPING IN PROGRESS AT FACILITY).
 2. When immunization and/or skin test entries are mapped to a different entry using the HDIS Generic Mapping Tool, a protocol update will occur to replace the original item. Any reminder dialog entries that are using the original item will replace it with the new mapped entry when the file status is changed from 7 to s. This information will be included in a MailMan message that is sent to the Clinical Reminders mail group.
 3. The Disable field has been changed from a free-text field to a set of codes .
 - 0 for NO
 - 1 for DISABLE AND SEND MESSAGE
 - 2 for DISABLE AND DO NOT SEND MESSAGE

These codes will be used when loading a reminder dialog in CPRS. If an item is marked as DISABLE AND SEND MESSAGE. A MailMan message will be sent to the Clinical Reminder mailgroup.

4. When a standardized file has a status of 7 or 6, only an active entry from these files can be added as a finding item or additional finding item to a reminder dialog item.
 5. When the Immunization or Skin Test files are set to a status of 6, any reminder dialog elements/groups that have a pointer to an inactive immunization or skin test that have not been remapped will be set to DISABLE AND SEND MESSAGE.
 6. When trying to re-enable disabled dialog elements, groups, or results groups, a check will be performed on the item for any pointer value to an entry in a standardized file. If the entry is inactive and the file status is 6, then the dialog item cannot be reactivated.
- Note that the automatic mapping functionality for data standardization changes to the software are in patch PXRMD*2*12, but they will be dormant until patch PXRMD*2*14, which is part of a group of data standardization patches, is installed.
 - When autogenerating a reminder dialog from a reminder, a scan will run through the new dialog and it will disable any subitems that point to an inactive entry in a standardized file.

Changes in Patch 6

Reminder Dialog Changes (VistA)

- **Data Dictionary Changes**

The variable pointer for the Finding Item field was changed to point to the new MH file 601.71 instead of File #601.

PXRMD*2*6 adds three new fields to the DD for 801.41. These fields will be used by Result Group/Elements and Dialog Elements.

^PXRMD(801.41,D0,50)=(#119) MH TEST [1P:601.71] ^ (#120) MH SCALE [2N] ^

^PXRMD(801.41,D0,51,0)=^801.41121P^^ (#121) RESULT GROUP SEQUENCE

^PXRMD(801.41,D0,51,D1,0)=(#.01) RESULT GROUP SEQUENCE [1P:801.41] ^

- MH Test is defined when creating/editing a Result Group. As of patch 6, all Result Groups needs to be mapped to a MH Test.
- MH Scale is defined when creating/editing a Result Group. The list of possible scales is based off the MH Test defined in field #119. As of patch 6, all Result Groups need to be mapped to a MH Scale.
- Result Group Sequence is replacing the Result Group/Element field used when creating/editing a Dialog Element for a MH Test. With the new MH DLL in CPRS 27, it is now possible to evaluate multiple scores for each MH Test that contains multiple scales. In the past, we could only evaluate one score per test. With patch 6, only a Result Group can be assigned to a Dialog Element.

Field (#55) RESULT GROUP/ELEMENT [15P:801.41] will be deleted from the 801.41 DD.

Maximum Number of MH Questions has been added a new field to file 800.

^PXR(800,D0,MH)= (#17) MAXIMUM NUMBER OF MH QUESTIONS [1N] ^

- **Pre and Post Install**

All the National Result Groups and Result Elements will be re-released with Patch 6. These have been updated to look at the correct MH Test and the MH Scale.

Seven new result groups will be released with PXR*2*6.

PXR BRADEN RESULT GROUP

PXR MORSE FALL RESULT GROUP

PXR PCLC RESULT GROUP

PXR PCLM RESULT GROUP

PXR PHQ2 RESULT GROUP

PXR PHQ9 RESULT GROUP

PXR PTSD RESULT GROUP

The PXR AIMS RESULT ELEMENT 1 Progress note text has been modified to only display the total score of the AIMS test.

The PXR BDI RESULT GROUP has been marked disabled. Sites should use the PXR BDI II RESULT GROUP instead of this result group.

NOTE: The MH instrument BDI is being discontinued. The Beck Depression Inventory is an instrument in the Mental Health Assistant that has long been used for evaluating and monitoring depression. For several years, MHA carried both the original version (BDI) and a newer, enhanced version (BDI2). With the release of patch YS*5.01*85, the BDI will be inactivated, as the BDI2 is now the preferred version of this instrument.

During the pre-init, any dialog elements using BDI will be changed to use BDI2.

National Result Groups assigned to a dialog element will be moved to the new multiple "RESULT GROUP SEQUENCE" if the test assigned to the Result Group matches the MH Finding Item in the element. These items will be stored as the first position. Local Result Groups will not be moved because of the lack of MH Tests defined for the Result Groups. Any Result Group that is not moved should be displayed in a MailMan message stating the name of the Result Group and the Element.

- **Result Element Editor**

A new field was added to the Result Group Editor "Informational Text"; this field allows the sites to add text to a pop-up warning in CPRS. (CPRS 27 and the MH DLL are needed to support this functionality). When CPRS is evaluating the Result Element progress note text, if the Result Element is true, the Informational Text defined in the Result Element will be returned to CPRS 27.

- **Result Group Editor**

In the Result Group Editor, sites will be able to disable a Result Group. Sites will also be able to assign the MH Test and the MH Scale to the Result Group. Both an MH Test and a MH Scale are required before the Result Group can be used in CPRS. A disabled Result Group will not be used in CPRS.

Several enhancements were made to result group editing. Result groups are screened to make sure they match the MH test. If the MH test is changed, any existing result groups are checked and if they do not match the MH finding they are deleted.

- **Dialog Element Editor**

When defining an MH finding item in a dialog element, the user will be able to assign multiple result groups to a dialog element. This is done to support the enhanced functionality of the MH DLL in CPRS 27. The list of Result Groups should be limited to Result Groups that have the same MH test as the MH finding Item, an MH Scale defined, and the Result Group is not disabled. When an MH test is defined in a dialog element, a check will be done to see if the test requires a license. If the test requires a license, a message will be displayed to the user stating "The question text will not appear in the progress note."

New Dialog Options in patch 6

- A new option "Edit Number of MH Questions" has been added to the "Reminder Parameters" menu. This option allows the site to determine to set the maximum number of questions an MH test can have and be administered via a Reminder Dialog. The default value when PXRm*2*6 is installed is 35. The user will not be able to select a MH test with a number of questions that exceeds the value defined in this option.

Reminder Dialog Changes (CPRS)

YS_MHA.DLL is a new tool included with YS*5.01*85 that provides an interface to Clinical Reminders functions in CPRS27. This DLL must be deployed to \Program Files\vista\ Common Files.

This DLL will replace the current MH functionality in reminder dialogs. The DLL will allow Reminder Dialogs to process *all* MH tests with no more than 100 questions. The maximum number of questions can be set by sites using the option "Edit Number of MH Questions" described in the preceding section. The question and answer text for the progress note, along with the score and scale for each MH test, will be returned by the MH DLL.

CPRS 26 has additional checks to avoid forcing the user to answer all the questions in the MH test if the test is considered resolved without answering all of the questions. This requires installation of PXRm*2*6 and YS*5.01*85 to work.

A new parameter to toggle the MH DLL on or off was released with CPRS 27.

```
Select CPRS Configuration (IRM) Option:  XX  General Parameter Tools
```

```
LV      List Values for a Selected Parameter
LE      List Values for a Selected Entity
LP      List Values for a Selected Package
LT      List Values for a Selected Template
EP      Edit Parameter Values
ET      Edit Parameter Values with Template
EK      Edit Parameter Definition Keyword
```

```
Select General Parameter Tools Option: EP  Edit Parameter Values
```



```
Select OPTION NAME: XPAR EDIT PARAMETER          Edit Parameter Values
Edit Parameter Values
                --- Edit Parameter Values ---

Select PARAMETER DEFINITION NAME:      OR USE MH DLL    Use MH DLL?

----- Setting OR USE MH DLL   for System: CPRS27.FO-SLC.MED.VA.GOV -----
Use MH DLL?: YES//
```

Steps to create a dialog

1. First, you create elements, which may include additional prompts, template fields, objects, or orders.
2. Next, organize the elements into groups.
3. Then add the groups or single elements to the dialog.
4. Once a dialog is created, you can link it to a reminder.

It's possible to autogenerate a dialog, which would automatically incorporate all the defining elements, but would not add informational elements, orderable items, or templates. By manually creating your dialog, you can customize your dialog. Most sites prefer to create dialogs manually.

Reminder dialogs and all their related components are stored in the Reminder Dialog File #801.41. This file is used to define all of the components that work together to define a reminder dialog.

This file contains a combination of nationally distributed entries, local auto-generated entries, site, and VISN exchanged entries, and local manually created entries. Nationally distributed entries have their name prefixed with PXR or "VA-". Entries in this file may be auto-generated via the Dialog Management Menu option. Manually created dialog entries should use local namespacing conventions.

This file is similar to the option file where there are different types of entries (reminder dialog, dialog elements (sentences), prompts, and groups of elements, result elements and groups of result elements). Where an option has menu items, the dialog file has components that are entered with the sequence field as the .01 field.

Dialog Component Definitions

Dialog Elements

A dialog element is defined primarily to represent sentences to display in the CPRS window with a check box. When the user checks the sentence off, the FINDING ITEM in the dialog element and the ADDITIONAL FINDINGS will be added to the list of PCE updates, orders, vitals, mental health tests, and Women's Health Notifications. The updates won't occur on the CPRS GUI until the user clicks on the FINISH button. Dialog elements may have components added to them. Auto-generated components will be based on the additional prompts defined in the Finding Type Parameters. Once a dialog element is auto-generated, the sites can modify them.

Dialog elements may also be instructional text or a header. The FINDING ITEM and components would not be defined in dialog elements.

Dialog Groups

A dialog group is similar to a menu option. It groups dialog elements and dialog groups within its component multiple. The dialog group can be defined with a finding item and check-box. The components in the group can be hidden from the CPRS GUI window until the dialog group is checked off.

Result Elements

The result element is only used with mental health test finding items. A result element contains special logic that uses information entered during the resolution process to create a sentence to add to the progress note. The special logic contains a **CONDITION** that, when true, will use the **ALTERNATE PROGRESS NOTE TEXT** field to update the progress note. A separate result element is used for each separate sentence needed. Default result elements are distributed for common mental health tests, prefixed with **PXRM** and the mental health test name. Sites may copy them and modify their local versions as needed. With **PXRM*2*6**, **CPRS V27**, and the **MH DLL**, result elements will be able to display a user defined message to the user in **CPRS** if the result elements evaluate as **True**.

Result Groups

A result group contains all of the result elements that need to be checked to create sentences for one mental health test finding and one **MH Scale**. The dialog element for the test will have its **RESULT GROUP** field defined with the result group. Default result groups for mental health tests are distributed with the Clinical Reminders package. Sites may copy them and modify their local versions as needed.

Prompts

A prompt is used to have the user enter certain data for the patient. The data that is entered into the prompt will update the progress and the update other files (e.g., **PXRM DATE** would update the **Vist** file by creating a new encounter entries for an historical update). Some prompts can be restricted to certain finding items. The new **PXRM WH NOTE TYPE** will only work if the finding item or additional finding item is a **WH Notification** entry.

Forced Value

A forced value is way for forcing a certain type of update. A common use for a forced value is to automatically set a diagnosis as the primary diagnosis.

Reminder Dialog Management Menu

Syn.	Name	Option Name	Description
DP	Dialog Parameters	PXRM DIALOG PARAMETERS	This menu allows maintenance of parameters used in dialog generation: RS - Resolution Statuses FP - Finding Type Parameters FI - Finding Item Parameters HR - Health Factor Resolutions TD - Taxonomy Dialogs
DI	Reminder Dialogs	PXRM DIALOG/ COMPONENT EDIT	A reminder dialog contains questions (dialog elements) and/or groups of questions (dialog groups) that are related to the reminder findings. Dialog file entries may be created or amended with this option.
DR	Dialog Reports	PXRM DIALOG TOOLS MENU	This sub-menu contains three options that can be used as dialog maintenance tools: Reminder Dialog Elements Orphan Report, Empty Reminder Dialog Report, and Check Reminder Dialog for invalid items
IA	Inactive Codes Mail Message	PXRMCS INACTIVE DIALOG CODES	This option is used to search the Dialog File #801.41 for ICD and CPT Codes that have become inactive and send the report in a mail message to the Clinical Reminders mail group

Dialog Parameters

Before you can create dialogs, the entries in the Dialog Parameters must be appropriate for the dialog you are creating. Although the autogeneration process inserts pre-defined elements from entries in the dialog parameters files, these may not all be appropriate for a specific dialog. Therefore, you should review these dialog parameters and edit them, as necessary.

Syn.	Name	Option Name	Description
RS	Reminder Resolution Statuses	PXRM RESOLUTION EDIT/INQ	This option lists the hierarchy of resolution status values used by CPRS.
HR	Health Factor Resolutions	PXRM HEALTH FACTOR RESOLUTIONS	For each health factor, one or more resolution statuses may be selected. When generating a reminder dialog for a reminder with a health factor finding, dialog items will only be generated for the resolution statuses selected.
FP	General Finding Type Parameters	PXRM PARAMETER EDIT/INQUIRE	This option lists the finding parameters used by Create Dialog from Reminder Definition.
FI	Finding Item Parameters	PXRM FINDING ITEM	If a reminder finding item will always be resolved by the same sentence (dialog element) or set of sentences (dialog group), an entry should be made in the finding item parameter file linking the reminder finding item to the dialog element or group. When a reminder dialog is generated, it will include the sentences defined in this file instead of generating a dialog using the FINDING TYPE PARAMETERS file.

Syn.	Name	Option Name	Description
TD	Taxonomy Dialog Parameters	PXRM DIALOG	The dialog for a taxonomy finding is created from the fields in this option each time the reminder dialog is passed to CPRS or viewed through the reminder dialog option.

Reminder Resolution Statuses

Reminder resolution statuses are maintained using this option. A national set of resolution statuses is released with the reminder package. Local resolution statuses may be defined, but must be linked to a national status.

The first screen in this option displays the existing resolution statuses:

Selection List		May 05, 2000 15:15:26	Page: 1 of 1	
Reminder Resolution Status				
Item	Reminder Resolution Status	National/Local		
1	CONTRAINDICATED	NATIONAL		
2	DONE AT ENCOUNTER	NATIONAL		
3	DONE ELSEWHERE (HISTORICAL)	NATIONAL		
4	INACTIVATE	NATIONAL		
5	INFORMATIONAL	NATIONAL		
6	LOCAL	LOCAL		
7	ORDERED	NATIONAL		
8	OTHER	NATIONAL		
9	OTHER - DUE TO CLINICIAN DECISION	LOCAL		
10	OTHER - DUE TO COHORT AGE	LOCAL		
11	PATIENT REFUSED	NATIONAL		
+ Next Screen - Prev Screen ?? More Actions				
AD	Add	PT	List/Print All	QU Quit
Select Item:Quit//				

AD - Add a new local resolution status

Selection List		May 05, 2000 12:11:25		Page: 1 of 1	
Reminder Resolution Status					
Item	Reminder Resolution Status			National/Local	
1	CONTRAINDICATED			NATIONAL	
2	DONE AT ENCOUNTER			NATIONAL	
3	DONE ELSEWHERE (HISTORICAL)			NATIONAL	
4	ORDERED			NATIONAL	
5	OTHER			NATIONAL	
6	PATIENT REFUSED			NATIONAL	
+ Next Screen - Prev Screen ?? More Actions					
AD	Add	PT	List/Print All	QU	Quit
Select Item: Quit// AD Add					

Select new RESOLUTION STATUS name: ?
 Answer with REMINDER RESOLUTION STATUS NAME
 Choose from:
 CONTRAINDICATED
 DONE AT ENCOUNTER
 DONE ELSEWHERE (HISTORICAL)
 ORDERED
 OTHER

PATIENT REFUSED

You may enter a new REMINDER RESOLUTION STATUS, if you wish
Answer must be 3-40 characters in length.

Select new RESOLUTION STATUS name: OTHER-DUE TO LIFE EXPECTANCY
Are you adding 'OTHER-DUE TO LIFE EXPECTANCY' as
a new REMINDER RESOLUTION STATUS (the 7TH)? No// **Y** (Yes)

NAME: OTHER-DUE TO LIFE EXPECTANCY Replace **<Enter>**

DESCRIPTION:
1>Other due to life expectancy
2>**<Enter>**

EDIT Option: **<Enter>**

ABBREVIATED NAME: **OTHER - LIFE EXPECT**

REPORT COLUMN HEADING: **OTHER - LIFE EXPECT**

INACTIVE FLAG: **<Enter>**

This resolution status must be linked to a national status

SELECT NATIONAL RESOLUTION STATUS: **OTHER**
...OK? Yes// **<Enter>** (Yes)

Selection List May 05, 2000 12:15:50 Page: 1 of 1

Item	Reminder Resolution Status	National/Local
1	CONTRAINDICATED	NATIONAL
2	DONE AT ENCOUNTER	NATIONAL
3	DONE ELSEWHERE (HISTORICAL)	NATIONAL
4	ORDERED	NATIONAL
5	OTHER	NATIONAL
6	OTHER-DUE TO LIFE EXPECTANCY	LOCAL
7	PATIENT REFUSED	NATIONAL

+ Next Screen - Prev Screen ?? More Actions

AD Add PT List/Print All QU Quit

Select Item: Quit// **<Enter>**

ED - Edit resolution status

When you select a specific resolution status (for example, #6 in the list above), details of that status are displayed. You can then perform any of the actions listed below on that status. National statuses may not be added or deleted. Column headings are used in Reminder Activity Reports. Local statuses must be mapped to a national status.

Edit List May 05, 2000 12:18:05 Page: 1 of 1

Reminder Resolution Status Name: OTHER - DUE TO LIFE EXPECTANCY

Resolution Status: OTHER - DUE TO LIFE EXPECTANCY

Resolution Status Description
Other due to life expectancy.

Related National Status: OTHER
Abbreviated name: OTHER - LIFE EXPECT
Report Column Headings: OTHER - LIFE EXPECT
Inactive Flag:

+ Next Screen - Prev Screen ?? More Actions

ED Edit INQ Inquiry/Print QU Quit

Select Action: Quit// **ED**

Edit List May 05, 2000 12:18:05 Page: 1 of 1
REMINDER RESOLUTION STATUS NAME: OTHER-DUE TO LIFE EXPECTANCY

Resolution Status: OTHER-DUE TO LIFE EXPECTANCY

Resolution Status Description
Other due to life expectancy

Related National Status: OTHER
Abbreviated name: OTHER - LIFE EXPECT
Report Column Headings: OTHER - LIFE EXPECT
Inactive Flag:

+ Next Screen - Prev Screen ?? More Actions

ED Edit INQ Inquiry/Print QU Quit

Select Action: Quit// **ED** Edit

NAME: OTHER-DUE TO LIFE EXPECTANCY Replace **<Enter>**

DESCRIPTION:

1>Other due to life expectancy

EDIT Option: **<Enter>**

ABBREVIATED NAME: OTHER - LIFE EXPECT// **<Enter>**

REPORT COLUMN HEADING: OTHER - LIFE EXPECT// **OTHER - LIFE EXPECT** with **OTHER - LIFE EXP.** **<Enter>**

INACTIVE FLAG: **<Enter>**

Edit List May 05, 2000 12:20:02 Page: 1 of 1
REMINDER RESOLUTION STATUS NAME: OTHER-DUE TO LIFE EXPECTANCY

Resolution Status: OTHER-DUE TO LIFE EXPECTANCY

Resolution Status Description
Other due to life expectancy

Related National Status: OTHER
Abbreviated name: OTHER - LIFE EXPECT
Report Column Headings: OTHER - LIFE EXP.
Inactive Flag:

+ Next Screen - Prev Screen ?? More Actions

ED Edit INQ Inquiry/Print QU Quit

Select Action: Quit// **ED** Edit

NAME: OTHER-DUE TO LIFE EXPECTANCY Replace @

SURE YOU WANT TO DELETE THE ENTIRE 'OTHER-DUE TO LIFE EXPECTANCY' REMINDER R **Y**
(Yes)

Health Factor Resolutions

For reporting purposes, all health factors included in CPRS reminder dialogs must be mapped to a resolution status. This option is used to maintain these mappings. If a health factor is not mapped to a resolution status, it will be ignored by dialog generation (except where an entry exists in the FINDING ITEM PARAMETER file #801.43).

The first screen in this option displays the current mappings:

Selection List		May 05, 2000 15:39:50	Page:	1 of	1
Health Factor Resolutions					
Item	Health Factors	Resolution Status			
1	ALCOHOL USE	OTHER			
2	BINGE DRINKING	OTHER			
3	CURRENT SMOKER	PATIENT REFUSED			
4	DRINKING ALONE	OTHER			
5	FAMILY HX OF ALCOHOL ABUSE	OTHER			
6	NUTRITION	OTHER			
7	PAIN MGMT	OTHER			
8	TOBACCO	DONE AT ENCOUNTER/DONE ELSEWHERE			
+ Next Screen - Prev Screen ?? More Actions					
AD	Add	PT	List/Print All	QU	Quit
Select Item:Quit//					

When you select a health factor resolution by number, an edit screen appears that displays the related resolution statuses and lets you edit or delete them. A health factor may be associated with more than one resolution status.

Edit List		May 05, 2000 15:50:41	Page:	1 of	1
Health Factor Resolution Name: PAIN MGMT HF(660003)					
Resolution Statuses					
OTHER					
+ Next Screen - Prev Screen ?? More Actions					
ED	Edit	INQ	Inquiry/Print	QU	Quit
Select Action: Quit//					

Allocating Resolution Statuses for all Health Factors on a reminder

The option HR Health Factor Resolutions allows selection of reminders:

Selection List		May 05, 2000 10:14:51		Page: 1 of 2	
Health Factor Resolutions					
Item	Health Factors	Resolution Status			
1	ACTIVATE TOBACCO USE SCREEN	OTHER			
2	ALCOHOL USE	OTHER			
3	BINGE DRINKING	OTHER			
4	CURRENT NON-SMOKER	OTHER			
5	CURRENT SMOKER	OTHER			
6	CURRENTLY PREGNANT	OTHER			
7	DRINKING ALONE	OTHER			
8	FAMILY HX OF ALCOHOL ABUSE	OTHER			
9	INACTIVATE BREAST CANCER SCREEN	OTHER			
10	INACTIVATE EXERCISE SCREEN	OTHER			
11	INACTIVATE FOBT CANCER SCREEN	OTHER			
12	INACTIVATE PNEUMOCOCCAL VACCINE	OTHER			
13	LIFETIME NON-SMOKER	OTHER			
14	LIFETIME NON-TOBACCO USER	OTHER			
15	NO RISK FACTORS FOR HEP C	DONE AT ENCOUNTER			
16	NUTRITION	OTHER			
+ Next Screen - Prev Screen ?? More Actions					
AD	Add	PT	List/Print All	QU	Quit
Select Item:Next Screen// AD Add					

Select one of the following:

- I Individual Health Factor
- A All Health Factors for a Selected Reminder

SELECTION OPTION: I// All Health Factors for a Selected Reminder

SELECT REMINDER: TOBACCO USE SCREEN

HEALTH FACTORS: <Enter>

ACTIVATE TOBACCO USE SCREEN (Resolution defined)

INACTIVATE TOBACCO USE SCREEN

MODIFY resolution status for ACTIVATE TOBACCO USE SCREEN: N//<Enter> O

ADD resolution status for INACTIVATE TOBACCO USE SCREEN: N// YES

NAME: INACTIVATE TOBACCO USE SCREEN// <Enter>

Select RESOLUTION STATUS: OTHER

...OK? Yes// <Enter> (Yes)

Select RESOLUTION STATUS: <Enter>

General Finding Type Parameters (FP)

This option allows display of the REMINDER FINDING TYPE PARAMETER file #801.45 used in generating reminder dialogs. There is limited edit on this file to allow customization of prefix and suffix text. Parameters may also be disabled if not required at your site.

The file is structured by finding type and within that resolution status. A generated reminder dialog will include a sentence (dialog element) for each resolution type enabled in the finding type parameter file.

The sentence text is constructed as: prefix_finding item name_suffix. Health factors are treated slightly differently. Health factors are linked to resolution statuses by the Health Factor Resolutions option. For reminders with health factors, sentences are only generated if there is a resolution mapping AND an enabled finding type parameter.

The first screen in this option displays the finding types held in this file:

Selection List		May 05, 2000 16:06:40	Page: 1 of 1
Finding Type Parameters			
Item	Finding Type	Parameter	
1	PROCEDURE		
2	EDUCATION TOPIC		
3	EXAM		
4	HEALTH FACTOR		
5	IMMUNIZATION		
6	ORDERABLE ITEM		
7	DIAGNOSIS		
8	SKIN TEST		
9	VITAL MEASUREMENT		
+ Next Screen - Prev Screen ?? More Actions			
PT	List All	QU	Quit
Select Item: Quit//			

When you select an item from this screen, all of the finding type parameters for the finding type selected are displayed. The reminder dialog generation process uses this file to create dialog as follows:

For each finding item on the reminder, the REMINDER FINDING TYPE PARAMETER file is checked to see if there are any “enabled” resolution statuses for the finding type. If an enabled resolution status exists, then a dialog element (sentence) is added to the reminder dialog with sentence text generated from the finding name concatenated with prefix and suffix text

Example: Patient had ALCOHOL USE education at this encounter

Clicking on the checkbox displayed with this sentence in CPRS causes the finding item (from the original reminder definition) to be posted to this patient’s record.

Additional prompts are also added to the dialog element as specified in the finding type parameter file.

Note: Dialog elements created by reminder dialog generation are given a standard name based on the finding type, finding name, and resolution status (from the REMINDER FINDING TYPE PARAMETER file)

Example: ED ALCOHOL USE DONE ELSEWHERE

The dialog elements created are shared by reminder dialogs for reminders with the same finding item.

The example below is the finding type parameter for education findings:

Finding Type Parameter List		May 05, 2000 16:11:10	Page: 1 of 1
Finding Type Parameter Name: ED - EDUCATION TOPIC			
Resolution Status	Prefix//Suffix & Prompts/Values/Actions	Status	
1 DONE AT ENCOUNTER	Patient had/ /at this encounter 1] PXRm COMMENT 2] PXRm LOU (EDUCATION)	Enabled	
2 DONE ELSEWHERE (HISTORICAL)	Patient indicated/ /was received outside the VA 1] PXRm COMMENT 2] PXRm VISIT DATE 3] PXRm OUTSIDE LOCATION	Disabled	
3 PATIENT REFUSED	Patient declined/ /at this encounter 1] PXRm REFUSED (forced value) 2] PXRm COMMENT	Disabled	
+ Next Screen - Prev Screen ?? More Actions			
INQ Inquiry/Print	QU Quit		
Select number of Resolution Status to Edit: Quit//			

If a number is entered to select a resolution status, the following fields can be edited:

```
ED - EDIT FINDING TYPE PARAMETER

Finding Type Parameter Name: ED - EDUCATION TOPIC
RESOLUTION STATUS : DONE AT ENCOUNTER
DISABLE RESOLUTION STATUS: DISABLED// <Enter>
PREFIX TEXT: Patient had// <Enter>
SUFFIX TEXT: at this encounter// <Enter>
Select ADDITIONAL PROMPTS: PXRm LOU (EDUCATION)// <Enter>
  DISABLE ADDITIONAL PROMPT: <Enter>
  OVERRIDE PROMPT CAPTION: <Enter>
  START NEW LINE: <Enter>
  EXCLUDE FROM PN TEXT: <Enter>
  REQUIRED: <Enter>
```

Finding Item Parameters (FI)

This file allows reminder finding items to be linked to a specific dialog element (i.e. sentence and prompts) or a group of dialog elements. The reminder dialog generated for a reminder with a finding item entry in this file will include the dialog element or dialog group specified in this file instead of creating a dialog using the REMINDER FINDING TYPE PARAMETER file.

The first screen in this option displays the finding items held in this file:

Selection List		May 05, 2000 10:35:36	Page:	1 of	1
Finding Item Parameters					
Item	Finding Item Type & Name	Dialog Group/Element		Status	
1	HF-ED SUBSTANCE ABUSE (OVERRIDE)	ED SUBSTANCE ABUSE REFUSED		Enabled	
2	HF-ALCOHOL	ALCOHOL DIALOG GROUP		Disabled	
+ Next Screen - Prev Screen ?? More Actions					
AD	Add	PT	List/Print All	QU	Quit
Select Item: Quit//					

When you select a specific finding item parameter, details of the selected finding item parameter are displayed. You can then edit:

Edit List	May 05, 2000 10:48:25	Page:	1 of	1
Finding Item Parameter Name: ALCOHOL (ENABLED)				
Finding Type: HF(6)		Finding Item: ALCOHOL		
Dialog Group: ALCOHOL DIALOG GROUP (ENABLED)				
1) Dialog Element: HF BINGE DRINKING OTHER (ENABLED)				
Dialog Text: Binge drinking				
Additional Prompts: PXRM COMMENT				
2) Dialog Element: HF DRINKING ALONE OTHER (ENABLED)				
Dialog Text: Drinking alone				
Additional Prompts: PXRM COMMENT				
+ Next Screen - Prev Screen ?? More Actions				
ED	Edit	INQ	Inquiry/Print	QU Quit
Select Action: Quit//				

In the example above, the dialog elements have been previously generated automatically as part of another reminder dialog. A dialog group (ALCOHOL DIALOG GROUP) has then been created in Dialog Edit using these existing dialog elements. Finally an entry has been created in the finding item parameter to link HF(6) to the dialog group.

Taxonomy Dialog Edit (TD)

Dialogs for reminders with taxonomy findings are created from the REMINDER TAXONOMY file #811.2 as the dialog is passed to CPRS. This option maintains the fields used by this type of dialog. Changes made to a taxonomy dialog are immediately effective on reminder dialogs including the taxonomy finding item.

Changes may be made through this option to:

- Taxonomy header question
- Current/Historical procedure questions
- Current/Historical diagnosis questions
- Selectable codes (ICD9/CPT) and user modified descriptions

DX/PR parameters allowing for individual questions for each code (rather than presenting codes as a checklist box).

The first screen in this option displays all taxonomies:

Selection List	May 05, 2000 11:14:48	Page: 1 of 3
Taxonomy Dialog		
<u>Item Reminder Taxonomy</u>		
1	FTEST1	
2	PAIN TAXONOMY	
3	PROBTEST 1	
4	PROBTEST 2	
5	RADIOLOGY TAXONOMY	
6	SLC DIABETES	
7	SLC-Ear Mites	
8	VA-ALCOHOL ABUSE	
9	VA-ALCOHOLISM SCREENING	
10	VA-BREAST TUMOR	
11	VA-CERVICAL CA/ABNORMAL PAP	
12	VA-CERVICAL CANCER SCREEN	
13	VA-CHOLESTEROL	
14	VA-COLORECTAL CA	
15	VA-COLORECTAL CANCER SCREEN	
+ Next Screen - Prev Screen ?? More Actions		
PT List All	QU Quit	
Select Item: Next Screen//		

If you select one of the items above, the dialog for the selected taxonomy is displayed:

Edit List	May 05, 2000 11:17:16	Page: 1 of 1
Taxonomy Name: SLC DIABETES		
<u>Taxonomy Dialog</u>		
1	Taxonomy header prompt	
1.1	Diagnosis this encounter	
	Selectable codes:	100.9 LEPTOSPIROSIS, UNSPECIFIED
		391.8 MODIFIED TEXT
1.2	Historical Diagnosis	
	Selectable codes:	100.9 LEPTOSPIROSIS, UNSPECIFIED
		391.8 MODIFIED TEXT
1.3	Current Procedure	
	Selectable codes:	10060 DRAINAGE OF SKIN ABSCESS
		76091 MAMMOGRAM, BOTH BREASTS
+ Next Screen - Prev Screen ?? More Actions		
ED Edit	INQ Inquiry/Print	QU Quit
Select Action: Quit// Edit		

```

Dialog Text Fields
DIALOG HEADER TEXT: Patient is diabetic//
CURRENT VISIT DX DIALOG HDR: Diabetes diagnosis at this encounter
    Replace
HISTORICAL VISIT DX DIALOG HDR: Previously diagnosed diabetic
    Replace
CURRENT VISIT PR DIALOG HDR: Current Procedure//
HISTORICAL VISIT PR DIALOG HDR: Historical Procedure
    Replace
Dialog Selectable codes
Select SELECTABLE DIAGNOSIS: 391.8//
    SELECTABLE DIAGNOSIS: 391.8//
    DISPLAY TEXT:
    DISABLED:
Select SELECTABLE DIAGNOSIS:
Select SELECTABLE PROCEDURE: 76091//
    SELECTABLE PROCEDURE: 76091//
    DISPLAY TEXT:
    DISABLED:
Select SELECTABLE PROCEDURE:
Dialog Generation Parameters
GENERATE DIALOG DX PARAMETER:
GENERATE DIALOG PR PARAMETER:

```

All selectable codes for the taxonomy are preloaded at implementation. Codes not required may be disabled. The display text for the diagnosis/procedure may also be modified if the standard text for the code is not acceptable. If the taxonomy has only a few codes, then by setting the Generate Dialog DX/PR parameters, it is possible to create a dialog with individual sentences for each code. The sentences (dialog elements) are created from the REMINDER FINDING TYPE PARAMETER file (CPT/POV).

Reminder Dialogs

Use this option to create and edit Dialog file entries. When you first select the option, all of the available reminders at your facility are listed, with linked dialogs, if they exist, and dialog statuses. You can select a reminder by name or number and then autogenerate a dialog for the reminder or link the reminder to an existing dialog. Alternatively, you can select the action CV Change View, which will allow you to select from any of the following:

Dialog types

- D - Reminder Dialogs
- E - Dialog Elements
- F - Forced Values
- G - Dialog Groups
- P - Additional Prompts
- R - Reminders
- RG - Result Group (Mental Health)
- RE - Result Element (Mental Health)

Reminder dialogs are linked to reminders by a field (REMINDER DIALOG) on the reminder definition. The reminder dialog may be executed by CPRS if the reminder is due or applicable.

A reminder dialog contains questions (dialog elements) and/or groups of questions (dialog groups) that are related to the reminder findings.

Dialog groups can contain one or more questions (dialog elements).

Each question (dialog element) may have a number of additional prompts (e.g. date, location) or forced values.

New reminder dialogs can be created using the action, AD - Add Dialog, in the Dialog view.

The reminder dialog may be created manually or autogenerated from the reminder definition using the General Finding Type Parameters.

Dialog Edit screen

When you select an existing reminder dialog, the following actions are available:

Abbrev	Action Name	Description
#	Select Item	To copy, edit or delete a component in this dialog.
ADD	Add Element/Group	Allows a dialog element or dialog group to be added to the reminder dialog.
CO	Copy Dialog	Copies this reminder dialog to a new name.
DD	Detailed Display	Displays dialog element names and resolution detail for this reminder dialog.
DP	Progress Note Text	Displays text that will be entered in the progress note.
DS	Dialog Summary (default)	Displays dialog element names.
DO	Dialog Overview	Displays the top-level dialog groups/elements. This option will not display any nested dialog elements or group
DT	Dialog Text	Displays the dialog text as it should appear in CPRS.
ED	Edit/Delete Dialog	Edit or delete this reminder dialog. Allows addition and deletion of existing dialog elements from this reminder dialog. Allows the sequence numbers to be changed. Also

		enable/disable dialog.
INQ	Inquiry/Print (for Reminder Dialogs only)	Print details of this reminder dialog.

Dialog Edit Options

The edit options allow changes to the selected reminder dialog. When making changes to dialog elements and prompts, it should be remembered that dialog elements and prompts might be used in more than one reminder dialog. Changing one reminder dialog may affect others. When editing any of the sub items, a list is presented that displays any other dialogs, groups, or elements that are using the item that is being edited. Additional prompts, forced values, dialog elements, and dialog groups may be edited or printed.

Dialog Edit List		Dec 15, 2004@14:04:59		Page: 1 of 4	
REMINDER DIALOG NAME: VA-DEPRESSION ASSESSMENT [NATIONAL] *LIMITED EDIT*					
Item	Seq.	Dialog Summary			
1	5	Element: VA-TEXT DEPRESSION EVAL INSTRUCTIONS			
2	7	Element: VA-TEXT BLANK LINE WITH TEMPLATE FIELD			
3	10	Group: VA-GP DEP MDD CRITERIA DISPLAY			
4	10.5	Element: VA-TEXT MDD DSM-IV CRITERIA DISPLAY			
5	12	Group: VA-GP PHQ 9			
6	12.5	Element: VA-TEXT PHQ 9			
7	15	Element: VAA-TEXT BLANK LINE			
8	20	Group: VA-GP DEP ASSESSMENT RESULTS			
+ Next Screen - Prev Screen ?? More Actions					
ADD	Add Element/Group	DS	Dialog Summary	INQ	Inquiry/Print
CO	Copy Dialog	DO	Dialog Overview	QU	Quit
DD	Detailed Display	DT	Dialog Text		
DP	Progress Note Text	ED	Edit/Delete Dialog		
Select Item: Next Screen//					

Dialog Overview

The action Dialog Overview (DO) allows you to see just the top level of the dialog elements, without the nested items, if the dialog has groups containing elements.

Dialog Edit List		Dec 15, 2004@14:04:59		Page: 1 of 4	
REMINDER DIALOG NAME: VA-DEPRESSION ASSESSMENT [NATIONAL] *LIMITED EDIT*					
Item	Seq.	Dialog Overview			
1	5	Element: VA-TEXT DEPRESSION EVAL INSTRUCTIONS			
2	7	Element: VA-TEXT BLANK LINE WITH TEMPLATE FIELD			
3	10	Group: VA-GP DEP MDD CRITERIA DISPLAY			
4	12	Group: VA-GP PHQ 9			
5	15	Element: VAA-TEXT BLANK LINE			
6	20	Group: VA-GP DEP ASSESSMENT RESULTS			
7	24	Element: VAA-TEXT BLANK LINE			
8	30	Element: VA-HF PT FOLLOWED FOR DEPRESSION			
<div> <div>+ Next Screen</div> <div>- Prev Screen</div> <div>?? More Actions</div> </div>					
ADD	Add Element/Group	DS	Dialog Summary	INQ	Inquiry/Print
CO	Copy Dialog	DO	Dialog Overview	QU	Quit
DD	Detailed Display	DT	Dialog Text		
DP	Progress Note Text	ED	Edit/Delete Dialog		
Select Item:Next Screen//					

Result Dialogs

Result dialogs contain progress note text that is added to a progress note, based on the results of dialog processing. NOTE: Only Mental Health Instrument results can be used.

Some reminder definitions have Finding Items for MH Instruments. When dialog entries are generated for these reminders, a dialog element will be created for each MH Instrument finding. If a site doesn't want to see mental health instrument questions and answers added into the progress note, they can control whether to include the questions and answers by answering Yes to the EXCLUDE MH TEST FROM PN TEXT field in the dialog element. If a site wants the mental health instrument questions and answers added to the progress note text, the reminder manager must answer No at the the EXCLUDE MH TEST FROM THE PN TEXT field.

```

EXCLUDE MH TEST FROM PN TEXT 0;14 SET
      '1' FOR YES;
      '0' FOR NO;

HELP-PROMPT:  Enter Y to stop test questions and answers from being
               added to the note text.

DESCRIPTION:  This flag is used to control whether or not
               mental health test questions and answers will be excluded
               from the progress note text when the test is taken.

```

When the user enters answers to a mental health instrument, the answers are automatically passed to the Mental Health package to calculate a result, which may be referenced as SCORE. For example, CAGE test has a SCORE from 1-4 and GAF has a SCORE from 1-99.

For most Mental Health tests, progress note text can be automatically generated that summarizes or includes the results (SCORE). Default text is distributed in the REMINDER DIALOG file #801.41 for sites to use for each Mental Health instrument processed in the reminder resolution process. This text may be copied and modified to reflect the site's preferences for text. The default text is defined in Mental Health Result Dialog Elements. The reminder manager must add the Result Dialog Group to the MH Instruments Dialog Element RESULT GROUP SEQUENCE field. This result dialog may define further processing to conditionally generate progress note text based on the SCORE.

The Result Dialog Elements provide a number of fields for flexible use of progress note text.

RESULT CONDITION: Enter M code which, when evaluated to 1, would generate the progress note text and create finding entries defined in the RESULT DIALOG ELEMENT. Currently, The logic can only use the value stored in an M local variable called SCORE.

PROGRESS NOTE TEXT: Enter the word processing text to add to the progress note. Use a blank space in the first character of a line when you want the line to be printed as it appears in the text. The "|" (vertical bar) may be used around the M variable SCORE to include the score within the text (MH Tests only). Response values may be included in the text for the AIMS test only, and limited to the variables specified in the default AIMS text.

Example of one of the CAGE Result Dialog Elements distributed with the package:

NAME: CAGE RESULT ELEMENT 1 Replace <Enter>
RESULT CONDITION: I SCORE<2// <Enter>
PROGRESS NOTE TEXT: <Enter>
An alcohol screening test (CAGE) was negative (score=|SCORE|).

Mental Health Result Dialogs

Dialogs for mental health tests can be set up in Clinical Reminders. A reminder definition can include any mental health instrument.

Changes made by PXR*2.0*6 and YS*5.01*85:

The Clinical Reminders package currently interfaces with a version of the Mental Health Assistant (MHA 2) that is being replaced by a rewrite of the MHA tool, MHA3.

Clinical Reminders formerly used Mental Health Instruments from the MH Instrument file (#601) in reminder definitions, reminder terms, and reminder dialogs, but was required to change all use of the MH Instrument file (#601) to the new MH TESTS AND SURVEYS file (#601.71). Patch 6 converts current pointers from entries in file #601 to #601.71.

The CR package previously got patient results from the PSYCH INSTRUMENT PATIENT file, (#601.2), but MHA3 files all patients' results in the MH ADMINISTRATIONS file (#601.84). Pre-MHA3 results will not be converted from the PSYCH INSTRUMENT PATIENT file (#601.2) to the MH ADMINISTRATIONS file (#601.84). In MHA3, the MH ADMINISTRATIONS file (#601.84) will contain the patient results collected during the administration of a specified instrument from the MH TESTS AND SURVEYS file (#601.71).

Clinical Reminder Dialog Result Group/Element Changes

- MH Test is defined when creating/editing a Result Group. As of patch 6, all Result Groups need to be mapped to a MH Test.
- MH Scale is defined when creating/editing a Result Group. The list of possible scales is based on the MH Test defined in field #119. As of patch 6, all Result Groups need to be mapped to a MH Scale.
- Result Group Sequence is replacing the Result Group/Element field used when creating/editing a Dialog Element for a MH Test. With the new MH dll in CPRS 27, it is now possible to evaluate multiple scores for each MH Test that contains multiple scales. In the past, we could only evaluate one score per test. With patch 6, only a Result Group can be assigned to a Dialog Element.
- All the National Result Groups and Result Elements will be re-released with Patch 6. These have been updated to look at the correct MH Test and the MH Scale. There are also quite a few new national Result Groups.

The PXR AIMS RESULT ELEMENT 1 Progress note text has been modified to only display the total score of the AIMS test.

The PXR BDI RESULT GROUP has been marked disabled. Sites should use the PXR BDI II RESULT GROUP instead of this result group.

Any dialog element that points to the BDI MH test will be re-pointed to the BDI2 MH Test.

National Result Groups assigned to a dialog element will be moved to the new multiple "RESULT GROUP SEQUENCE" if the test assigned to the Result Group matches the MH Finding Item in the element. These items will be stored as the first position. Local Result Groups will not be moved because of the lack of MH Tests defined for the Result Group. Any Result Group that is not moved should be displayed in a message stating the name of the Result Group and the Element.

Several enhancements were made to result group editing. Result groups are screened to make sure they match the MH test. If the MH test is changed, any existing result groups are checked and if they do not match the MH finding, they are deleted.

- **Result Element Editor**

A new field was added to the Result Element Editor "Informational Text"; this field allows the sites to add text to a pop-up warning in CPRS. (CPRS 27 and the MH dll are needed to support this functionality). When CPRS is evaluating the Result Element progress note text, if the Result Element is true, the Informational Text defined in the Result Element will be returned to CPRS 27.

- **Result Group Editor**

In the Result Group Editor, sites will be able to disable a Result Group. Sites will also be able to assign the MH Test and the MH Scale to the Result Group. Both a MH Test and a MH Scale are required before the Result Group can be used in CPRS. Disable Group will not be used in CPRS.

- **Dialog Element Editor**

When defining a MH finding item in a dialog element, the user will be able to assign multiple result groups to a dialog element. This is done to support the enhanced functionality of the MH dll in CPRS 27. The list of Result Groups should be limited to Result Groups that have the same MH test as the MH finding Item, and a MH Scale is defined, and the Result Group is not disabled. When a MH test is defined in a dialog element, a check will be done to see if the test required a license. If the test requires a license, a message will be displayed to the user stating "The question text will not appear in the progress note."

New Option

A new option, "Edit Number of MH Questions," has been added to the Reminder Parameters menu. This option allows the site to determine what is the most number of questions in a MH test to answer in a Reminder Dialog. The default value when patch 6 is installed is 35. The user will not be able to select a MH test with a number of questions that exceeds the value defined in this option.

The text of the dialog is derived from the mental health package and cannot be modified using the Reminder Dialogs option.

Score-based progress note text is generated from the Dialog Result Groups/Elements entered in the result field of the dialog element. The following result groups are included with the package:

Dialog List		Sep 25, 2007@12:38:19	Page: 1 of 2
DIALOG VIEW (RESULT GROUPS)			
Item	Dialog Name	Dialog type	Status
6	PXRM AIMS RESULT GROUP	Result Group	
7	PXRM AUDC RESULT GROUP	Result Group	

8	PXRM AUDIT RESULT GROUP	Result Group
9	PXRM BDI II RESULT GROUP	Result Group
11	PXRM BRADEN RESULT GROUP	Result Group
12	PXRM CAGE RESULT GROUP	Result Group
13	PXRM DOM80 RESULT GROUP	Result Group
14	PXRM DOMG RESULT GROUP	Result Group
15	PXRM MISS RESULT GROUP	Result Group
16	PXRM MORSE FALL RESULT GROUP	Result Group
17	PXRM PCLC RESULT GROUP	Result Group
18	PXRM PCLM RESULT GROUP	Result Group
19	PXRM PHQ2 RESULT GROUP	Result Group
20	PXRM PHQ9 RESULT GROUP	Result Group
21	PXRM PTSD RESULT GROUP	Result Group
22	PXRM ZUNG RESULT GROUP	Result Group
+		
+ + Next Screen - Prev Screen ?? More Actions >>>		
AD	Add	CV Change View INQ Inquiry/Print
CO	Copy Dialog	PT List/Print All QU Quit
Select Item: Quit//		

Mental Health Test Dialogs, cont'd

This is the Inquiry/Print for result group AIMS:

Dialog List	Jun 06, 2007@09:09:50	Page: 1 of 2	
DIALOG VIEW (RESULT GROUPS)			
Item	Dialog Name	Dialog type Status	
1	AGP BPRS 210 RG	Result Group	
2	AGP BPRS 212 RG	Result Group	
3	AGP PTSD RESULT GROUP	Result Group	
4	AGP PTSD RESULT GROUP 2	Result Group	
5	PXRM AIMS RESULT GROUP	Result Group	
6	PXRM AUDC RESULT GROUP	Result Group	
7	PXRM AUDIT RESULT GROUP	Result Group	
8	PXRM BDI II RESULT GROUP	Result Group	
9	PXRM BDI RESULT GROUP	Result Group	Disabled
10	PXRM BRADEN RESULT GROUP	Result Group	
11	PXRM CAGE RESULT GROUP	Result Group	
12	PXRM DOM80 RESULT GROUP	Result Group	
13	PXRM DOMG RESULT GROUP	Result Group	
14	PXRM MISS RESULT GROUP	Result Group	
15	PXRM PHQ2 RESULT GROUP	Result Group	
16	PXRM PHQ9 RESULT GROUP	Result Group	

+ + Next Screen - Prev Screen ?? More Actions >>>

AD Add CV Change View INQ Inquiry/Print
CO Copy Dialog PT List/Print All QU Quit
Select Item: Next Screen// INQ Inquiry/Print
Select Dialog Definition: PXRM AIMS RESULT GROUP result group NATIONAL
...OK? Yes// (Yes)

DEVICE: HOME
REMINDER DIALOG INQUIRY Jun 06, 2007 9:10:37 am Page 1

NUMBER: 208
Name: PXRM AIMS RESULT GROUP
Disable:
Type: result group
Class: NATIONAL
Sponsor:
Review Date:
MH Test: AIMS
MH Scale Number: 1
Exclude from PN:

Edit History:

GROUP COMPONENTS:

Sequence: 1
Result Element: PXRM AIMS RESULT ELEMENT 1
Element Condition:
Element text:
The patient was evaluated for symptoms of tardive dyskinesia using the AIMS.
Total score for items 1-7: |SCORE|

Informational text:

Action CV within Reminder Dialogs allows result groups and result elements to be modified. The position of the score in the progress note text is defined by a |SCORE| marker in the result element.

NOTE: |SCORE| works like TIU Objects, by retrieving and inserting the score in place of the marker.

Example of giving a Mental Health Instrument:

With CPRS 26:

Reminder Resolution: Screen for Depression

PHQ9

Over the past 2 weeks, how often have you been bothered by any of the following problems? Please read each item carefully and give your best response.

1. Little interest or pleasure in doing things
[Dropdown menu]
2. Not at all / Several days / More than half the days / Nearly every day
[Dropdown menu] hopeless
3. Trouble falling or staying asleep, or sleeping too much
[Dropdown menu]
4. Feeling tired or having little energy
[Dropdown menu]
5. Poor appetite or overeating
[Dropdown menu]
6. Feeling bad about yourself or that you are a failure or have let yourself or your family down
[Dropdown menu]
7. Trouble concentrating on things, such as reading the newspaper or watching television
[Dropdown menu]

Perform PHQ9

☐ Question 10. If you do your work, take care of your home, or manage your money, how difficult is it for you to do your work, take care of your home, or manage your money?
* ☐ Not difficult at all

No data available for PHQ-9

SUICIDE RISK SCREENING

Are you feeling hopeless, sad, or thinking about suicide?

optional
☐ No
☐ Yes

Clinical Reminders:
Alcohol Abuse Screen (AUDIT-C):

Pressing the Perform button causes the Mental Health Instrument dialog to appear.

With CPRS 27 and MH DLL:

PHQ9: LU,LULU

Over the past 2 weeks, how often have you been bothered by any of the following problems? Please read each item carefully and give your best response.

1. Little interest or pleasure in doing things

☐ 1. Not at all

☐ 2. Several days

☐ 3. More than half the days

☐ 4. Nearly every day

2. Feeling down, depressed, or hopeless

☐ 1. Not at all

☐ 2. Several days

☐ 3. More than half the days

☐ 4. Nearly every day

3. Trouble falling or staying asleep, or sleeping too much

☐ 1. Not at all

☐ 2. Several days

☐ 3. More than half the days

☐ 4. Nearly every day

4. Feeling tired or having little energy

☐ 1. Not at all

☐ 2. Several days

☐ 3. More than half the days

☐ 4. Nearly every day

5. Poor appetite or overeating

☐ 1. Not at all

☒ Use speed tab

Hint: Use the number key of the item to speed data entry.

Dialog Branching Logic

Branching/conditional logic allows display of alternate checkboxes in dialogs (as seen in CPRS), depending on whether defined conditions meet certain criteria.

Four new fields have been added to the dialog editors to support this logic enhancement.

The following three fields will only be seen when editing a reminder element or group:

Reminder Term This field is the pointer to the Reminder Term file and must be set for this functionality to work.

Term Status This field is used as a condition statement and can only be set to a True/False value. If the reminder term evaluation matches this field, the specialized action will occur. This field must be set for this functionality to work.

Replacement Element/Group This is the pointer to Reminder Dialogs and will allow the users to pick an alternate dialog element or dialog group that will display if the evaluation of the Reminder Term is the same as the value of Term Status. This field may be left blank. If this field is left blank, the current item will be suppressed if the Reminder Term status matches the term evaluations.

This field will only be seen at the Reminder Dialog level:

Patient Specific This is a field used by CPRS to determine if the Dialog text should be stored between patients or not. **This field must have a value of YES in order for branching logic to work.**

Process

CPRS will evaluate any reminder term that is defined in the dialog element/group for a true/false status. If the reminder term true/false status matches the true/false status defined in the Term Status field, CPRS will then look at the Replacement Reminder Element/Group Field. If something is defined here, CPRS will display the element/group that is defined. If nothing is defined in the Replacement Reminder Element/Group field, then CPRS will not display the current element/group.

Example 1

Here is an example of the replace logic used in Women's Health:

```
NAME: VA-WH PAP RESULTS//
DISABLE:
CLASS: NATIONAL//
SPONSOR: Women Veterans Health Program//
REVIEW DATE:
RESOLUTION TYPE:
ORDERABLE ITEM:
FINDING ITEM:
DIALOG/PROGRESS NOTE TEXT:
PAP SMEAR RESULTS:

    Edit? NO//
ALTERNATE PROGRESS NOTE TEXT:
```

```

    No existing text
    Edit? NO//
EXCLUDE FROM PROGRESS NOTE: NO//
SUPPRESS CHECKBOX: SUPPRESS//
Select ADDITIONAL FINDINGS:
RESULT GROUP/ELEMENT:
Select SEQUENCE: 5//
    SEQUENCE: 5//
    ADDITIONAL PROMPT/FORCED VALUE: PXRW WH PAP RESULT PROMPT
    //
    OVERRIDE PROMPT CAPTION: This report indicates:
        Replace
    START NEW LINE: YES//
    EXCLUDE FROM PN TEXT:
    REQUIRED: YES//
Select SEQUENCE:
REMINDER TERM: VA-WH PAP SMEAR PENDING REVIEW//
REMINDER TERM STATUS: FALSE//
REPLACEMENT ELEMENT/GROUP: AGP WH PAP SMEAR REVIEW UNPROCESS

```

If the reminder term returns a value of false, the dialog element AGP WH PAP SMEAR REVIEW UNPROCESS will display in CPRS. If the evaluation logic is true, then the VA-WH PAP RESULTS element will display.

Example of the Suppress functionality

```

NAME: AGP DIALOG GROUP 2//
DISABLE:
CLASS: LOCAL//
SPONSOR:
REVIEW DATE:
RESOLUTION TYPE:
ORDERABLE ITEM:
FINDING ITEM:
GROUP CAPTION:
PUT A BOX AROUND THE GROUP:
SHARE COMMON PROMPTS:
MULTIPLE SELECTION:
HIDE/SHOW GROUP:
GROUP HEADER DIALOG TEXT:
DIALOG GROUP 2

    Edit? NO//
GROUP HEADER ALTERNATE P/N TEXT:
    No existing text
    Edit? NO//
EXCLUDE FROM PROGRESS NOTE:
SUPPRESS CHECKBOX:
NUMBER OF INDENTS: 2//
INDENT PROGRESS NOTE TEXT: INDENT//
Select ADDITIONAL FINDINGS:
Select SEQUENCE: 1//
    SEQUENCE: 1//
    DIALOG ELEMENT: AGP DIALOG GROUP 3//
    EXCLUDE FROM PN TEXT:
Select SEQUENCE:
REMINDER TERM: VA-WH PAP SMEAR SCREEN IN LAB PKG//
REMINDER TERM STATUS: TRUE//
REPLACEMENT ELEMENT/GROUP:

```

If the Reminder Term evaluates as true, the Dialog group AGP Dialog Group 2 will not show in CPRS. If the term evaluates as False, then the dialog group will show in CPRS.

Example 2

Follow-up of a positive Audit-C. For scores of 4-7 (3-7 for women) there is one set of interventions and for scores of 8 or higher, there is a different more limited set. So instead of having these interventions in 2 separate dialogs, we could now combine them into one.

Group 1 has a reminder term (A) that looks for a score of 8 or higher, if true then group 1 is displayed and it contains the more limited set of interventions. If (A) is false, then the replacement group is displayed which has the interventions for scores 4-7 (women 3-7).

Element 1 in the replacement group has a reminder term that looks for the sex=M. If true, element 1 is displayed with the instructions that the man has a score of 4-7 and needs an intervention. If false, then the replacement element is displayed which has instructions that the woman's score was 3-7.

Another scenario is a new integrated pneumovax reminder that might better accomplish the true nature of the recommended guidelines without presenting too much information to the user.

For example, the reminder dialog could show one version for patients who had never had a pneumovax administration before, and then if they had their one shot, and needed the booster 5 years later because of their age, the dialog could show a totally different version, including different health factors to help track this difference when the administration was appropriate for the second shot.

Example 3

Standard dialog for Colorectal cancer screening

Reminder Resolution: Colorectal Cancer Screening

Orders

- ☐ Order occult blood panel
- ☐ Order Colonoscopy or Sigmoidoscopy

Outside Screening Done Previously

- ☐ Outside Occult Blood Result
- ☐ Prior Normal Colonoscopy
- ☐ Prior Colonoscopy - Abnormal
- ☐ Prior Sigmoidoscopy
- ☐ No outside colonoscopy or sigmoidoscopy

☐ Deferrals or Refusals

☐ Family history of Colon Cancer in a First Degree Relative

☐ Education

Clear Clinical Maint Visit Info < Back Next > Finish Cancel

<No encounter information entered>

* Indicates a Required Field

Same reminder, but the first dialog group is replaced by a different one if the patient has an ICD code that suggests visual impairment.

Reminder Resolution: Serology for Hepatitis C Risk

☐ Order lab test for Hepatitis C
☐ Previously tested for Hepatitis C
☐ Declines testing for Hepatitis C
☐ Life Expectancy < 6 months

EVALUATE FOR TESTING FOR OTHER CHRONIC VIRAL INFECTIONS

HEPATITIS B TESTING

☐ Hepatitis B profile
☐ Outside Hepatitis B surface antigen positive (carrier)
 Hep B surface Ag pos (HBsAg +)
☐ Record Outside Result - Hep B seropos (immune or prior infection)
 Hepatitis B core antibody positive (HBcAb +) or
 Hepatitis B surface antibody positive (HBsAb +)
☐ Record Outside Result - Hepatitis B seronegative
 Hep B core Ab neg and no prior immunization series
☐ Hepatitis B Serology Not Indicated

HIV TESTING

☐ HIV Serology
☐ Prior HIV serology negative
☐ Prior HIV serology positive

<No encounter information entered>

* Indicates a Required Field

If the patient has prior testing for either of those illnesses, then a text statement replaces that portion of the dialog that testing has been done previously.

Reminder Resolution: Serology for Hepatitis C Risk

☐ Order lab test for Hepatitis C
☐ Previously tested for Hepatitis C
☐ Declines testing for Hepatitis C
☐ Life Expectancy < 6 months

EVALUATE FOR TESTING FOR OTHER CHRONIC VIRAL INFECTIONS

Hepatitis B serology has been performed previously.

HIV testing has been done previously

Clear Clinical Maint Visit Info < Back Next > Finish Cancel

<No encounter information entered>

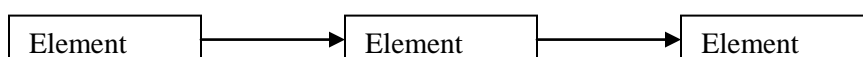
* Indicates a Required Field

Branching logic problem

Ways that are acceptable for branching – and some pitfalls

The Reminder dialog will allow branching only once at an entry at the same level. You can have multiple elements in a dialog or a group and the branching logic will evaluate each of these elements, and if the item should branch, it will. If you have a dialog with eight elements assigned to it and branching logic defined on elements 2, 5, and 8, each item will be evaluated and will branch accordingly. If a current item in a dialog is replaced with a group, each element/group assigned to the group will be evaluated for branching, and these items will branch accordingly.

The branching logic will allow branching continually throughout the dialog, but it will not allow multiple branching at the same level in the dialog.



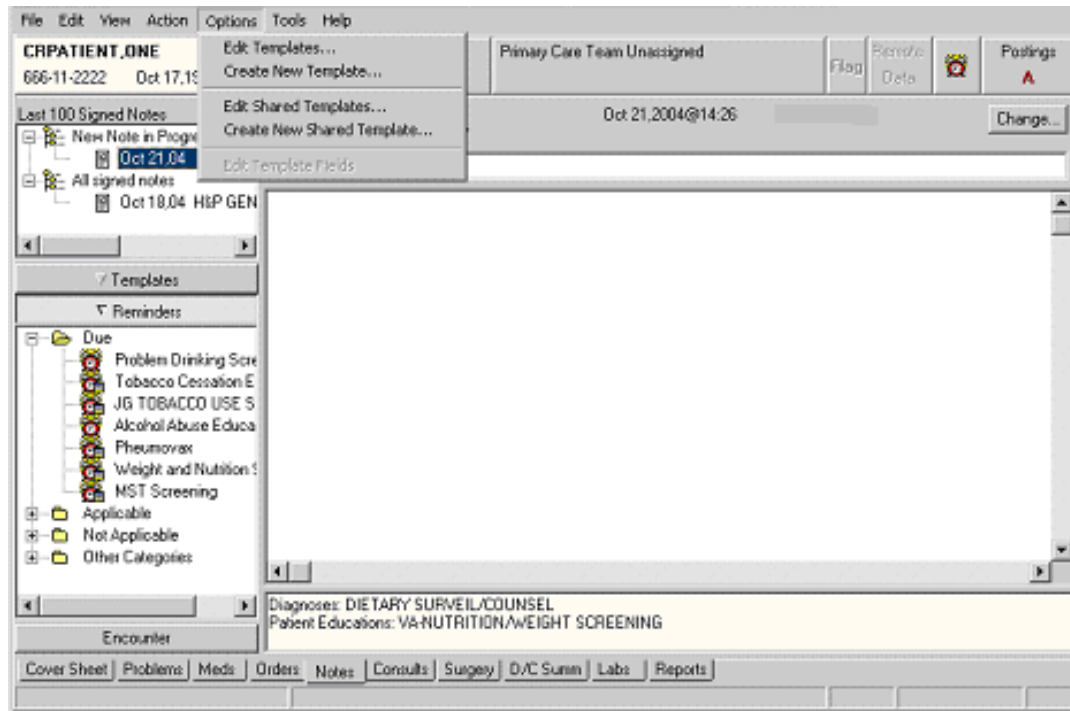
Reported questions/problems and solutions:

- Q** I assigned a Reminder Term, added a value to the Reminder Term Status field, and assigned a replacement element and the dialog is not changing from patient to patient.
- A** Make sure the PATIENT SPECIFIC field is set to True; this field can be found by editing the dialog itself.
- Q** I set everything up correctly and the branching logic works if I do something to the dialog, but if I pulled it up and cancel the dialog out without checking anything, the branching logic does not work. The site is using CPRS 24.27.
- A** There is a bug in any version of CPRS before 25. Launching a dialog from the Reminder Drawer and canceling out of the dialog will not allow it to branch. To fix this problem, your first element in the dialog must be set to suppress, or an item must be checked in the dialog. We are recommending that the dialog be set up with a dummy element set to suppress and the text in the dialog text field contains five blank spaces.
- Q** I think I set everything up correctly, but the branching logic does not seem to be working correctly.
- A** Verify that the term is evaluating correctly for your patient; you can do this by running the reminder test output from VistA.

Editing Template Fields used in Reminder Dialogs

How to set the TIU parameter that allows a user access to the Options/Edit Template Fields from the CPRS GUI Notes tab:

The Edit Template Fields option can be used to create sets of checkboxes, radio buttons, etc., which can be used in reminder dialogs.



In order to use the Edit Template Fields option to edit template fields used in Reminder Dialogs, the following are required:

1. New option: TIU Template Reminder Dialog Parameter, on the CPRS Parameter menu on the Reminder Manager Menu
2. TIU parameter TIU FIELD EDITOR CLASSES
3. User Class of Clinical Coordinator

TIU parameter TIU FIELD EDITOR CLASSES

```
Select OPTION NAME: xpar edit
  1  XPAR EDIT BY TEMPLATE          Edit Parameter Values with Template  action
  2  XPAR EDIT KEYWORD             Edit Parameter Definition Keyword    edit
  3  XPAR EDIT PARAMETER           Edit Parameter Values              action
CHOOSE 1-3: 3  XPAR EDIT PARAMETER  Edit Parameter Values          action
Edit Parameter Values

          --- Edit Parameter Values ---

Select PARAMETER DEFINITION NAME: tiu field EDITOR CLASSES      Template Field Ed
itor User Classes

TIU FIELD EDITOR CLASSES may be set for the following:

  1  User          USR      [choose from NEW PERSON]
  3  Service       SRV      [choose from SERVICE/SECTION]
```

```
4   Division      DIV      [choose from INSTITUTION]
5   System        SYS      [DVF.FO-SLC.MED.VA.GOV]
6   Package       PKG      [TEXT INTEGRATION UTILITIES]
```

Enter selection: **u User** NEW PERSON

Select NEW PERSON NAME: **CRUSER** CRUSER,ONE OC SYSTEMS ANALYST/PROGRAMMER

----- Setting TIU FIELD EDITOR CLASSES for User: CRUSER,ONE -----

Select Sequence Number: **1**

Are you adding 1 as a new Sequence Number? **Yes**// y YES

Sequence Number: 1// 1

User Class: Clin

```
1   Clinical And Laboratory Immuno  CLINICAL AND LABORATORY IMMUNOLOGIST
2   Clinical Biochemical Geneticis  CLINICAL BIOCHEMICAL GENETICIST
3   Clinical Biochemical Molecular  CLINICAL BIOCHEMICAL MOLECULAR
```

GENETICIST

```
4   Clinical Clerk  CLINICAL CLERK
5   Clinical Coordinator  CLINICAL COORDINATOR
```

Press <RETURN> to see more, '^' to exit this list, OR

CHOOSE 1-5: 5 CLINICAL COORDINATOR

Select Sequence Number: ?

Sequence Number	Value
-----	-----
1	CLINICAL COORDINATOR

Select Sequence Number:

User Class of Clinical Coordinator

Select OPTION NAME: TIU Maintenance Menu TIU IRM MAINTENANCE MENU

TIU Maintenance Menu

```
1   TIU Parameters Menu ...
2   Document Definitions (Manager) ...
3   User Class Management ...
4   TIU Template Mgmt Functions ...
5   TIU Alert Tools
```

Select TIU Maintenance Menu Option: 3 User Class Management

--- User Class Management Menu ---

```
1   User Class Definition
2   List Membership by User
3   List Membership by Class
5   Manage Business Rules
```

Select User Class Management Option: 2 List Membership by User

Select USER: CRPROVIDER,ONE CHIEF, MEDICAL SERVICE

Current User Classes	Jan 23, 2003@14:55:15	Page: 1 of 1
	CRPROVIDER,ONE	2 Classes
User Class	Effective	Expires
1 Clinical Coordinator	04/28/00	
2 Physician	11/16/98	04/11/15

+ Next Screen - Prev Screen ?? More Actions

Add	Remove	Quit
Edit	Change View	

Add a New Class to an Existing User

Current User Classes		Jan 23, 2003@14:55:15	Page: 1 of 1
		CRPROVIDER,ONE	2 Classes
	User Class	Effective	Expires
1	CRPROVIDER's Consult Class		
2	Business Rule Manager	09/22/00	
3	Medical Administration Special	09/11/01	
4	Social Worker Supervisor		
+ Next Screen - Prev Screen ?? More Actions			
Add	Remove	Quit	
Edit	Change View		
Select Action: Quit// add Add			
Select USER CLASS: Clin			
1	Clinical And Laboratory Immuno	CLINICAL AND LABORATORY IMMUNOLOGIST	
2	Clinical Biochemical Geneticis	CLINICAL BIOCHEMICAL GENETICIST	
3	Clinical Biochemical Molecular	CLINICAL BIOCHEMICAL MOLECULAR	
GENETICIST			
4	Clinical Clerk	CLINICAL CLERK	
5	Clinical Coordinator	CLINICAL COORDINATOR	
Press <RETURN> to see more, '^' to exit this list, OR			
CHOOSE 1-5: 5 CLINICAL COORDINATOR			
EFFECTIVE DATE: t (JAN 23, 2003)			
EXPIRATION DATE: t+1 (JAN 24, 2003)			
Select Another USER CLASS:			
Rebuilding membership list.			
Current User Classes		Jan 23, 2003@14:55:15	Page: 1 of 1
		CRUSER,TWO	2 Classes
	User Class	Effective	Expires
1	A Consult Class		
2	Business Rule Manager	09/22/00	
3	Clinical Coordinator	01/23/03	01/28/03
4	Medical Administration Special	09/11/01	
5	Social Worker Supervisor		
+ Next Screen - Prev Screen ?? More Actions			
Add	Remove	Quit	
Edit	Change View		

Dialog Reports

Option Name		Synonym	Description
Reminder Dialog Elements Orphan Report	PXRM DIALOG ORPHAN REP ORT	OR	This option is used to run the Reminder Dialog Elements Orphan Report.
Empty Reminder Dialog Report	PXRM DIALOG EMPTY REPORT	ER	This Option will run the Empty Reminder Dialog report.
Check Reminder Dialog for invalid items	PXRM DIALOG CHECKER	CH	This option runs a routine that checks a selected reminder dialog for invalid sub-dialog items, invalid finding items, invalid TIU Objects, and/or invalid Template Fields.
Check All Active Reminder Dialog for invalid items New in Patch 18	PXRM DIALOG CHECKER ALL	ALL	This option screens all active reminder dialogs for invalid items.

Reminder Dialog Elements Orphan Report

Select Reminder Managers Menu Option: DM Reminder Dialog Management

DP Dialog Parameters ...
 DI Reminder Dialogs
 DR Dialog Reports ...
 IA Inactive Codes Mail Message

Select Reminder Dialog Management Option: DR Dialog Reports

OR Reminder Dialog Elements Orphan Report
 ER Empty Reminder Dialog Report
 CH Check Reminder Dialog for invalid items
 ALL Check All Reminder Dialogs for invalid items

Select Dialog Reports Option: **OR** Reminder Dialog Elements Orphan Report
 DEVICE: HOME// ;;**99999999** ANYWHERE Right Margin: 80//

```

Reminder Dialog Elements Orphan Report                                     Page: 1
=====
Dialog Elements
=====
  A NEW DIALOG ELEMENT FOR IMMUNIZATION
  A NEW HEP A ELEMENT
  EC HISTORICAL (3)
  EC TAXON
  ED ADVANCED DIRECTIVE SCREENING DONE (10)
  ED ADVANCED DIRECTIVE SCREENING DONE (2)
  ED ADVANCED DIRECTIVE SCREENING DONE (3)
  .
  .
  ZZVA-WV PAP SMEAR CLINICAL REVIEW
  ZZVA-WV TEST FORCED VALUE
  a a new test field
  blank
  
```

Dialog Groups

=====

DG LEVEL 2 GROUP
EXCLUDE FROM P/N GROUP
GP DEMO GROUP
GP HEP C RISKS
GP IMM PNEUMO
GP SPECIAL
GP TEST TAXONOMY GROUP
GP TOBACCO
GP VITALS
GPZ UNVESTED PXZ MSK VESTING C/O
GPZ VIAGRA INITIATION DOSES
IHD LIPID DONE ELSEWHERE GROUP
IHD LIPID LOWER MANAGE GROUP
PJH TEST GROUP
SP EXERCISE COUNSELING (1)
TEST OF WH GROUP
TEST P/N TEXT
VA-DG GEC ADDL INFO
ZZVA-WH GP PAP FOLLOW-UP TX/HIDE
ZZVA-WH GP PAP SCREENING REPEAT - ABNORMAL PAP
ZZVA-WV GP CERVICAL CARE
ZZVA-WV GP MAM FOLLOW-UP TX
ZZVA-WV GP MAM REVIEW - NOTIFY & F/U XXXXX
ZZVA-WV GP PAP REVIEW F/U W/O NOTIFY

Result Groups

=====

PXRM AIMS RESULT GROUP
PXRM AUDC RESULT GROUP
PXRM AUDIT RESULT GROUP
PXRM BDI RESULT GROUP
PXRM CAGE RESULT GROUP
PXRM DOM80 RESULT GROUP
PXRM DOMG RESULT GROUP
PXRM MISS RESULT GROUP
PXRM ZUNG RESULT GROUP
SLC ZUNG RESULT GROUP
SLC ZUNG2

Additional Prompts

=====

A A PAIN BLANK TEXT PROMPT
A A PAIN ENTER ALL APPLY
A A PAIN FREQ HX
A A PAIN ONSET PROMPT
A A PAIN TXT 3CHR
A A SG PAIN HISTORY LOCATION PROMPT
NEW PROMPT FOR COMMENT
PJH PXRM COMMENT
PR SG PAIN SCREENING NOT DONE
PXRM FORCE VALUE TEST
PXRM WH REVIEW RESULT COMMENT
PXRM*1.5*5 PERSON TYPE

Force Values

=====

A A *PAIN TRIGGERS PROMPT
A A ENTER ALL THAT APPLY
A A PAIN ACCEPTABLE PROMPT
A A PAIN NEW HX PROMPT

```
A ASUSAN'S TEST
PXRM FORCE DATE TEST
PXRM WH NOTIFICATION TYPE
PYRM SERIES FORCED
WH NOTIFICATION FORCE VALUE
a new forced value
```

Enter RETURN to continue or '^' to exit:

```
OR    Reminder Dialog Elements Orphan Report
ER    Empty Reminder Dialog Report
CH    Check Reminder Dialog for invalid items
```

Empty Reminder Dialog Report

```
Select Dialog Reports Option: ER Empty Reminder Dialog Report
DEVICE: HOME// ;;9999999999 ANYWHERE Right Margin: 80//
```

Empty Reminder Dialogs Report Page: 1

=====

```
A COPY OF AGETEST
AGP EMPTY DIALOG TEST
ANOTHER NEW REMINDER
TEST EDIT (1)
TEST EDIT COPY
```

Enter RETURN to continue or '^' to exit:

```
OR    Reminder Dialog Elements Orphan Report
ER    Empty Reminder Dialog Report
CH    Check Reminder Dialog for invalid items
```

Select Dialog Reports Option:

Check Reminder Dialog for Invalid Items

This option scans the selected dialog items for invalid sub-items, findings, TIU Objects, and/or TIU Templates. If any invalid items are found in the dialog, the results will be displayed to the user. This option allows for any dialog items to be selected, except for Additional Prompts and Forced Values.

The dialog checker report will check for the following items.

1. Disabled dialog items in the selected dialog.
2. Incomplete sequences in the selected dialog.
3. All sub-items in the selected dialog are pointing to valid entry on the system.
4. All finding items, additional finding items, and orderable items are pointing to a valid entry on the system.
5. Result groups are pointing to a valid MH Test and a MH scale has been defined for the result group.
6. An odd number of “[” characters in a dialog text field. If this is the case, it would not be possible to determine which part is a TIU Object.

7. Progress Note Text and the Alternate Progress Note text fields have valid TIU Objects and TIU Template Field.

Example of output

```
Select Dialog Reports Option: CH  Check Reminder Dialog for invalid items
Select Dialog Definition:      EXCHANGE DIALOG      reminder dialog      LOCAL
...OK? Yes//      (Yes)

EXCHANGE DIALOG contains the following errors.
The dialog element INACTIVE OBJECT contains a reference to a TIU
Object NP TIUHS OBJECT TEST in the Dialog Text field. This TIU Object is
inactive.
```

Check All Reminder Dialogs for Invalid Items

```
Select Dialog Reports Option: ALL  Check all active reminder dialog for
invalid items

COPY OF AGE TEST contains the following errors.
The dialog group HF BINGE DRINKING OTHER is disabled.

AGP INDENT TEST contains the following errors.
The dialog element 123456789 123456789 123456789 123456789 123456789
123456789 123 contains a pointer to an additional finding item that does
not exist on the system.

ZZPJH REMINDER contains the following errors.
The dialog element WH PAP, ANNUAL DUE. contains an a pointer to the
finding item that does not exist on the system.

PHARMACY DISCHARGE MEDICATIONS contains the following errors.
The dialog element PHARMACY DISCHARGE MEDS QUESTIONS contains a reference
to a TIU Object OUTPATIENT MEDS in the Dialog Text field. This TIU Object
does not exist on the system.

The dialog group GRP MOVE! SCREENING 5/2007 contains a reference to a TIU
Object BMI (BODY MASS INDEX %) in the Dialog Text field. This TIU Object
does not exist on the system.

Pap Smear (local) contains the following errors.
The dialog element EX PAP DONE  contains a reference to a TIU Object PAP
SMEAR in the Dialog Text field. This TIU Object does not exist on the
system.

ETC.

**DONE**
```

Inactive Codes Mail Message

This option is used to search the Dialog File #801.41 in search of ICD and CPT Codes that have become inactive and send the report in a mail message to the Clinical Reminders mail group.

```
Select Reminder Dialog Management Option: IA  Inactive Codes Mail Message
```

```
    Select one of the following:
```

- 1 ICPT Codes
- 2 ICD9 Codes
- 3 ALL Codes

```
Select Codes or All of the codes or "^" to exit: 3//  ALL Codes
```

```
Check Mail for results.....
```

```
Press RETURN to continue...
```


Dialog Taxonomy Fields

NAME	DESCRIPTION
DIALOG HEADER TEXT	This text will be displayed as a checkbox in the reminder dialog for this taxonomy.
SELECTABLE DIAGNOSIS	These are the diagnosis codes that may be selected when processing a taxonomy dialog within CPRS. The list of codes is built from the code ranges within the taxonomy when the Clinical Reminders package is installed and includes only active codes.
SELECTABLE PROCEDURE	These are the procedure codes that may be selected when processing a taxonomy dialog within CPRS. The list of codes is built from the code ranges within the taxonomy when the Clinical Reminders package is installed and includes only active codes.
GENERATE DIALOG DX PARAMETER	<p>This parameter works in conjunction with the autogeneration of dialogs. If it is set, then each active code in the selectable diagnosis list will be presented as a separate question in CPRS with text generated from the finding parameter file, #801.45.</p> <p>If it is not set, then there will be a checkbox for current diagnoses and a checkbox for historical entries. Fields #3107 and #3108 can be used to customize the checkbox headers. When one of the checkboxes is checked, then the selectable diagnoses list will be displayed as a drop-down list. This is the default option.</p>
CURRENT VISIT DX DIALOG HDR	<p>This is the diagnosis dialog sub-header text that will be selectable for CPRS users to document a diagnosis from the taxonomy as treated at the current visit. The header text will display with a checkbox which CPRS users can select to see the selectable diagnoses list.</p> <p>If this field is not present, the taxonomy name will be used.</p>
HISTORICAL VIXIT DX DIALOG HDR	<p>This is the diagnosis dialog sub-header text that will be selectable for CPRS users to document a diagnosis from the taxonomy as a historical diagnosis. The header text will display with a checkbox which CPRS users can select to see the selectable diagnoses list. Historical diagnoses selected will require the CPRS user to enter a visit date.</p> <p>If this field is not present, the taxonomy name followed by "(HISTORICAL)" will be used.</p>
GENERATE DIALOG PR PARAMETER	<p>This parameter works in conjunction with the autogeneration of dialogs. If it is set then each active code in the selectable procedure list will be presented as a separate question in CPRS with text generated from the finding parameter file, #801.45.</p> <p>If it is not set then there will be a checkbox for current procedures and a checkbox for historical entries. Fields #3110 and #3112 can be used to customize the checkbox headers. When one of the checkboxes is checked then the selectable diagnoses list will be displayed as a drop-down list. This is the default option.</p>
CURRENT VISIT PR DIALOG HDR	<p>This is the procedure dialog sub-header text that will be selectable for CPRS users to document a procedure from the taxonomy as done at the current visit. The header text will display with a checkbox which CPRS users can select to see the selectable procedure list.</p> <p>If this field is not present, the taxonomy name will be used.</p>

NAME	DESCRIPTION
HISTORICAL VISIT PR DIALOG HDR	This is the procedure dialog sub-header text that will be selectable for CPRS users to document a procedure from the taxonomy as a historical procedure. The header text will display with a checkbox which CPRS users can select to see the selectable procedure list. Historical procedures selected will require the CPRS user to enter a visit date. If this field is not present, the taxonomy name followed by "(HISTORICAL)" will be used.

Taxonomy Tip

When Clinical Reminders V.1.5 was released in June of 2000, it introduced the reminder dialog functionality. The installation process generated lists of selectable diagnoses and selectable procedures for each taxonomy that was on the system at the time of the installation. These lists included all the codes in the taxonomy that were active on the date of the install. Any site taxonomies that were created after the installation of V.1.5 do not have a selectable list until the first time a taxonomy dialog for that taxonomy is edited/created. The first time the taxonomy dialog is edited/created, the selectable lists are built from all the currently active codes in the taxonomy. It is important to note that once these lists are generated, they are not automatically updated when the taxonomy is edited. The only way to change them is through the taxonomy dialog editing option.

The code set versioning changes that were made to reminder dialogs ensure that a code that is inactive on the date of the encounter cannot be used. Therefore, inactive codes that are on selectable lists will not cause any problems.

Another code set versioning change that was made causes a check of all the codes used in reminder taxonomies and reminder dialogs whenever a Lexicon patch that updates a code set is installed. That is what creates the MailMan messages that notify you about inactive codes in taxonomies and dialogs. These messages are informational; as noted above, inactive codes will not cause problems, but at some point you may want to remove inactive codes.

CPRS Reminder Configuration Menu

This menu contains options to maintain reminder categories and to set up reminder dialogs within CPRS.

Syn	Option	Option Name	Description
CA	Add/Edit Reminder Categories	PXRM CATEGORY EDIT/INQUIRE	A reminder category may contain a list of reminders and/or other sub-categories. Use this option to edit the list.
CL	CPRS Lookup Categories	PXRM CPRS LOOKUP CATEGORIES	Reminder Categories to be displayed in the Other Categories folder of the note tab are entered here.
CS	CPRS Cover Sheet Reminder List	PXRM CPRS COVER SHEET LIST	Use this option to enter reminders that will be displayed on the CPRS cover sheet if the New Reminders Parameter is NOT set to Yes.
MH	Mental Health Dialogs Active	PXRM MENTAL HEALTH ACTIVE	This option allows a user to modify the "Mental Health Dialogs Active" CPRS parameter. You can activate Mental Health reminder resolution processing at a user, service, division, or system level. When activated for one of these levels, mental health tests can be performed in a reminder dialog.
PN	Progress Note Headers	PXRM PN HEADER	The header inserted into the progress note when processing a reminder may be modified for user, location, or service. The default header is Clinical Reminders Activity.
RA	Reminder GUI Resolution Active	PXRM GUI REMINDERS ACTIVE	This option allows a user to modify the "Reminders Active" CPRS parameter. You can activate GUI reminder resolution processing at a user, service, division, or system level. When activated for one of these levels, a reminders drawer is available on the notes tab for selecting and processing reminders.
DL	Default Outside Location	PXRM DEFAULT LOCATION	Allows the default outside location for reminder dialogs to be specified at user, service, division, or system level.
PT	Position Reminder Text at Cursor	PXRM TEXT AT CURSOR	Allows the position reminder note text at cursor feature to be enabled at user, service, division, or system level.
WH	WH Print Now Active	PXRM WH PRINT NOW	This option allows sites to include the Print Now button on Women's Health dialogs for notification letters.
GEC	GEC Status Check Active	PXRM GEC STATUS CHECK	A GEC Status Indicator may be added to the CPRS GUI Tools drop-down menu, to be viewed at any time and used to close the referral if needed. It may be set at the User or Team level through this option.
TIU	TIU Template Reminder Dialog Parameter	PXRM TIU DIALOG TEMPLATE	This option lets users edit the TIU TEMPLATE REMINDER DIALOG parameter.
NP	New Reminder Parameters	PXRM NEW REMINDER PARAMETERS	This option allows a user to modify the ORQQPX NEW REMINDER PARAMS parameter, which controls usage and management of cover sheet reminder list.

Add/Edit Reminder Categories

Reminder categories are maintained with this option. A category defines a group of reminders and may include other sub-categories.

Fix in PXR*2*18 to Reminder Category:

The input transform for the Display Order field in the Sub-Category multiple of the Reminder Category file had a bug. The first part of the input transform checks to make sure the user has typed in a number between 1 and 99, and the second part calls a routine to make sure the display order is unique. If the user inputs text instead of a number, the input fails the first part of the input transform and the routine is called with an undefined value for Display Order, which causes an error. The input transform was changed so that if the input fails the first part of the input transform, the routine is not called. Remedy ticket #404828.

To activate categories so that they appear in the reminders window in CPRS (under Other Categories), use the option CPRS Lookup Categories on page [246](#).

The first screen in this option displays the existing reminder categories:

Selection List	Aug 18, 1999 15:04:41	Page: 1 of 1
Reminder Categories		
<hr/>		
Item Reminder Category		
1	DIABETES CLINIC REMINDERS	
2	WEIGHT AND NUTRITION	
<hr/>		
+ Next Screen - Prev Screen ?? More Actions		
AD Add	PT List/Print All	QU Quit
Select Item: Quit//		

Actions

- **AD** - Add a new reminder category.
- **PT** - List or print all reminder categories
- **QU** - Return to menu
- **#** - Enter the item number to be edited.

If you select a reminder category, a description and related reminders are displayed. You can then edit the category.

Edit List	Apr 18, 2000 15:04:41	Page: 1 of 1
Reminder Category Name: SLC DEMO CATEGORY		
Category Description:		

This is the text for that summarizes what this category represents. A category may contain reminders and/or a number of sub-categories.

```
Sequence: 1    Reminder: SLC CANCER SCREEN
Sequence: 2    Reminder: SLC DIABETIC EYE EXAM
Sequence: 3    Reminder: SLC LIFE STYLE EDUCATION
Sequence: 4    Reminder: SLC PNEUMOCOCCAL VACCINE
Sequence: 90   Reminder: SLC DIABETIC FOOT CARE ED
Sequence: 99   Reminder: MHTEST

Sub-category: SUBSTANCE ABUSE                      Sequence: 3
Sequence: 1    Reminder: TOBACCO EDUCATION
Sequence: 2    Reminder: TOBACCO USE SCREEN
Sequence: 3    Reminder: VA-*PROBLEM DRINKING SCREEN
+ Next Screen - Prev Screen ?? More Actions
ED  Edit                      INQ  Inquiry/Print                      QU  Quit
Select Action: Quit//ED
```

Actions

- **ED** - Edit/Delete this reminder category
- **INQ** - List or print this reminder category
- **QU** - Return to previous screen.

CPRS Lookup Categories

Enter the Reminder Categories that you wish to be displayed on the reminder tree section of the note tab. These will appear in the “Other Categories” folder.

```
Select CPRS Reminder Configuration Menu Option: CL  CPRS Lookup Categories

Reminder Categories for Lookup may be set for the following:

1  User          USR    [choose from NEW PERSON]
2  Location      LOC    [choose from HOSPITAL LOCATION]
3  Service       SRV    [choose from SERVICE/SECTION]
4  Division      DIV    [ISC SALT LAKE]
5  System        SYS    [DEVCUR.ISC-SLC.VA.GOV]

Enter selection: 1  User    NEW PERSON
Select NEW PERSON NAME:  CRPROVIDER,ONE      jg

----- Setting Reminder Categories for Lookup for User: CRPROVIDER,ONE -----
Select Display Sequence: ?

Display Sequence      Value
-----
1                     SUBSTANCE ABUSE
5                     HEPATITIS C
10                    WEIGHT AND NUTRITION
15                    SLC REMINDER CATEGORY
20                    Usability Test Reminders

Select Display Sequence: 25
Are you adding 25 as a new Display Sequence? Yes//<Enter>  YES

Display Sequence: 25//  <Enter>  25
Reminder Category: ??
```

```

Choose from:
  Acute Pain
  Cancer Pain
  Chronic Pain
  HEPATITIS C
  Pain Management
  SLC REMINDER CATEGORY
  SUBSTANCE ABUSE
  USH POLICY
  Usability Test Reminders
  WEIGHT AND NUTRITION

Reminder Category: CRPROVIDER'S REMINDER CATEGORY
...OK? Yes// <Enter> (Yes)

Select Display Sequence: <Enter>

```

CPRS Cover Sheet Reminder List

Use this option to enter reminders that will be displayed on the CPRS cover sheet if the New Reminder Parameter option is set to No. If the New Reminders Parameter is set to Yes (ORQQPX NEW REMINDER PARAMS; see the description on the next page), you won't use this option; instead you will manage the cover sheet list through the CPRS GUI.

```

Select CPRS Reminder Configuration Menus Option: CS  CPRS Cover Sheet Reminder List

Clinical Reminders for Search may be set for the following:

      1  User          USR      [choose from NEW PERSON]
      2  Location      LOC      [choose from HOSPITAL LOCATION]
      3  Service        SRV      [choose from SERVICE/SECTION]
      4  Division       DIV      [ISC SALT LAKE]
      5  System         SYS      [DEVCUR.ISC-SLC.VA.GOV]

Enter selection: 1 User  NEW PERSON
Select NEW PERSON NAME: CRPROVIDER,ONE      jg

----- Setting Clinical Reminders for Search  for User: CRPROVIDER,ONE -----
Select Display Sequence: ?

      Display Sequence      Value
      -----
      1                     VA-DIABETIC FOOT CARE ED.
      2                     VA-TOBACCO EDUCATION
      5                     VA-*PNEUMOCOCCAL VACCINE
      10                    VA-INFLUENZA VACCINE
      15                    VA-*BREAST CANCER SCREEN
      25                    TOBACCO USE SCREEN
      30                    VA-*CHOLESTEROL SCREEN (M)
      35                    VA-*COLORECTAL CANCER SCREEN (FOBT)
      40                    VA-*HYPERTENSION SCREEN

Select Display Sequence: 20
Display Sequence: 20// <Enter> 20
Clinical Reminder: MENTAL HEALTH TESTS
Select Display Sequence: <Enter>

```

New Reminder Parameters - Edit Cover Sheet Reminder List

This option lets you set the parameter ORQQPX NEW REMINDER PARAMS for editing cover sheet reminders. **If this option is set to YES, you won't use the option CPRS Cover Sheet Reminder List.**

New Reminder Parameters Example

```
Select CPRS Reminder Configuration Option: NP   New Reminder Parameters

Use New Reminder Parameters may be set for the following:
  1   User          USR      [choose from NEW PERSON]
  2   Service       SRV      [choose from SERVICE/SECTION]
  3   Division      DIV      [choose from INSTITUTION]
  4   System        SYS      [DEVCUR.ISC-SLC.VA.GOV]
  5   Package       PKG      [ORDER ENTRY/RESULTS REPORTING]

Enter selection: 1   User      NEW PERSON
Select NEW PERSON NAME: CRPROVIDER,ONE      OC

----- Setting Use New Reminder Parameters   for User: CRPROVIDER,ONE -----
USE NEW REMINDER PARAMS: YES
```

There are two possible cover sheet lists for a user, one when ORQQPX NEW REMINDER PARAMS is “NO” and one when it is “YES.” Determining the value of ORQQPX NEW REMINDER PARAMS for a user is not always a straightforward exercise. For a basic understanding of how parameters work in CPRS, see the CPRS Technical Manual or Kernel Toolkit documentation.

The precedence for ORQQPX NEW REMINDER PARAMS is shown in the above example.

- If it is defined at the User level, then that takes precedence.
- If it is not defined at the User level, then a check is made at the Service level.
- If it is not defined at the Service level, then a check is made at the Division level, and so on until a value is determined.
- If the checking proceeds all the way to the Package level and nothing is defined at that level, then it defaults to “NO.”

There are two kinds of users with respect to the management of cover sheet lists.

- Regular users
- Reminder managers

A reminder manager is anyone who has PXRMANAGERS MENU as a primary or secondary menu option. A regular user can only edit their own cover sheet list, while a reminder manager can edit and manage cover sheet lists at all levels.

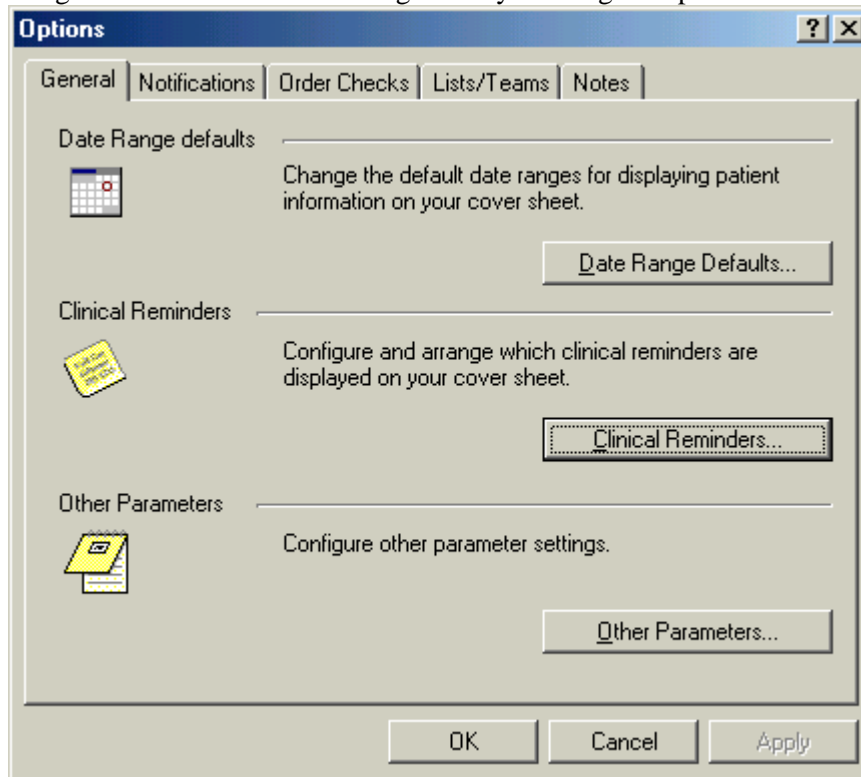
We recommend that ORQQPX NEW REMINDER PARAMS be set to “YES” for all users, because of the enhanced functionality that it makes available.

It is possible that a site may choose to use the old cover sheet list functionality, so we will start with a discussion of how things work when ORQQPX NEW REMINDER PARAMS is “NO.”

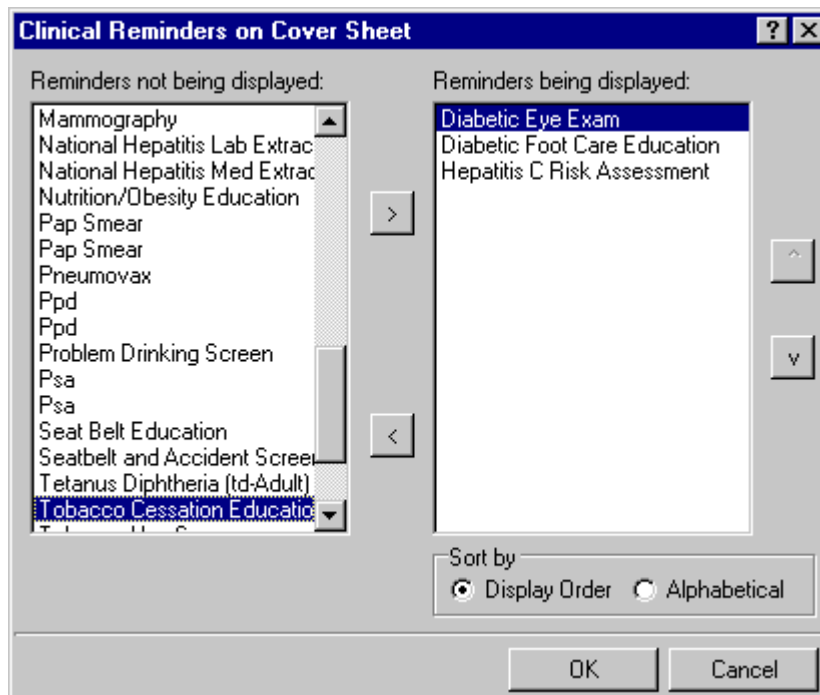
If your site is using the new cover sheet list functionality, then you can skip the following section.

ORQQPX NEW REMINDER PARAM set to “NO”

A regular user accesses the editing form by clicking on Options under the tools menu



Then click on Clinical Reminders to get to the editing form.



Highlight an item in the **Reminders not being displayed** field and then click the Add arrow “>” to add it to the **Reminders being displayed** field. You may hold down the Control key and select more than one reminder at a time. When you have all of the desired reminders in the **Reminders being displayed** field, you may highlight a reminder and use the up and down buttons on the right side of the dialog to change the order in which the reminders will be displayed on the Cover Sheet.

Sort by

Select Display Order to display the reminders in the order that you choose. Click Alphabetical to have the reminders displayed in alphabetic order.

This list is the list defined at the user level and takes precedence over any lists defined at higher levels, i.e. Location, Service, Division, System, or Package. A regular user cannot edit the list at any of these higher levels. A reminder manager can edit the list at these higher levels through the CPRS Cover Sheet Reminder List (CS) option described above (page [247](#)).

ORQQPX NEW REMINDER PARAM set to “YES”

The new type of cover sheet list provides a great deal of flexibility, allowing the reminder manager to build lists at the User, User Class, Location, Service, Division, and System levels. Note that these levels are not exactly the same as with the old type of list, where they were User, Location, Service, Division, and Package.

An important distinction between the new type of list and the old type is the new list is cumulative and removable. For example, if a list is defined at the system level, reminders can be added to or removed from the list at the User level. There may be certain reminders that should be on all users’ coversheet lists and these can be locked by the reminder manager.

The reminder manager accesses this functionality by clicking on the reminder button next to the CWAD button in the upper right hand corner of the CPRS GUI.



Click on Action then click on Edit Cover Sheet Reminder List.

Edit Cover Sheet Reminder List

Clinical Reminders and Reminder Categories Displayed on Cover Sheet

Cover Sheet Reminders (Cumulative List)

Reminder	Seq	Level	
+ [Icon] AGETEST (Local)	10	System	
+ [Icon] Problem Drinking Screen (V...	20	Service	MEDICINE
+ [Icon] SUBSTANCE ABUSE	30	Service	MEDICINE
- [Icon] Seat Belt Education (VA-SE...	40	Service	MEDICINE
+ [Icon] Weight and Nutrition Scree...	10	User	WHPROVIDER.ONE

Icon Legend

- [Folder Icon] Reminder Category
- [Alarm Icon] Reminder
- + Add to Cover Sheet
- Remove From Cover Sheet
- [Lock Icon] Lock (can not be removed)

View Cover Sheet Reminders

Select Cover Sheet Parameter Level to Display / Edit

☐ System
☐ Division: Salt Lake City Hcs
☐ Service: Medicine

☐ Location:
☐ User Class:
☒ User: Whprovider,One - PHYSICIAN

Editing Cover Sheet Reminders for User: WHPROVIDER.ONE

Available Reminders & Categories

- Weight and Nutrition Screen (VA-WEI)
- Weight and Nutrition Screen (JG-WEIG)
- ZZPJH TEST REMINDER (Local)
- pNEUMOVAX (WRJ-PNEUMOVAX - L)
- AGP TEST
- CAT
- Chicago PAP
- Dialog Demos

User Level Reminders

	Seq
+ [Icon] Weight and Nutrition Screen (VA-~W...	10

Seq # 10

+ Add
- Remove
[Lock Icon] Lock

OK Cancel Apply

This reminder manager form provides very extensive cover sheet list management capabilities. It consists mainly of three large list areas.

- Cover Sheet Reminders (Cumulative List) displays selected information on the Reminders that will be displayed on the Cover Sheet.
- Available Reminders & Categories lists all available Reminders and serves as a selection list.
- User Level Reminders displays the Reminders that have been added to or removed from the cumulative list.

You may sort the Reminders in *Cover Sheet Reminders (Cumulative List)* by clicking on any of the column headers. Click on the Seq (Sequence) column header to view the Reminders in the order in which they will be displayed on your cover sheet.

Icon Legend

An icon legend is displayed to the right of *Cover Sheet Reminders (Cumulative List)*.

- Folder icon represents a group of reminders
- Red alarm clock represents an individual reminder.
- Plus sign in the first column means a reminder has been added to the list

- Minus sign in the first column means a reminder has been removed from the list
- Padlock icon means you can't remove reminder (mandatory)

Cover Sheet Reminders (Cumulative List)

The Level column of the Cover Sheet Reminders (Cumulative List) field displays the originating authority of the Reminder, which can include System, Division, Location, User Class, and User. Reminders on this list that display a small gray padlock icon at the beginning of the line cannot be removed. These Reminders are mandatory. The Seq (Sequence) column defines the order in which the Reminders will be displayed on the Cover Sheet. If there are two or more Reminders with the same sequence number, the Reminders are listed by level (System, Division, Service, Location, User class, User).

Available Reminders & Categories

This area displays all of the Reminders and Categories available to the user. Categories are groups of related reminders that can be added as a group. Individual reminders within a category can be removed from the User Level Reminders field. Highlight a Reminder or Category from the field and click the right arrow to add them to the User Level Reminders field.

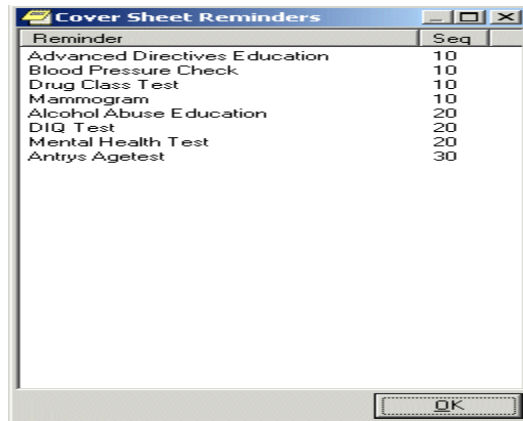
Select Cover Sheet Parameter Level to Display / Edit

This section has radio buttons for System, Division, Service, Location, User Class, and User. When one of the radio buttons is clicked, the list of reminders included at that parameter level appears in the box on the lower right-hand side of the form. You can then perform any of the following editing actions:

- To add a reminder, highlight the desired reminder in the Available Reminders & Categories field and click the right arrow button.
- To delete a reminder, highlight the reminder and click the left arrow.
- To make a reminder mandatory, select a reminder and then click on the Lock button.
- To make a mandatory reminder no longer mandatory, click on either the Add or Remove buttons, depending on if you want it to remain on the list or be removed.
- To determine the order in which the reminders will be displayed on the Cover Sheet, change the reminder's Sequence number. To do this click on the reminder and then change its sequence number in the sequence number box.

View Cover Sheet Reminders

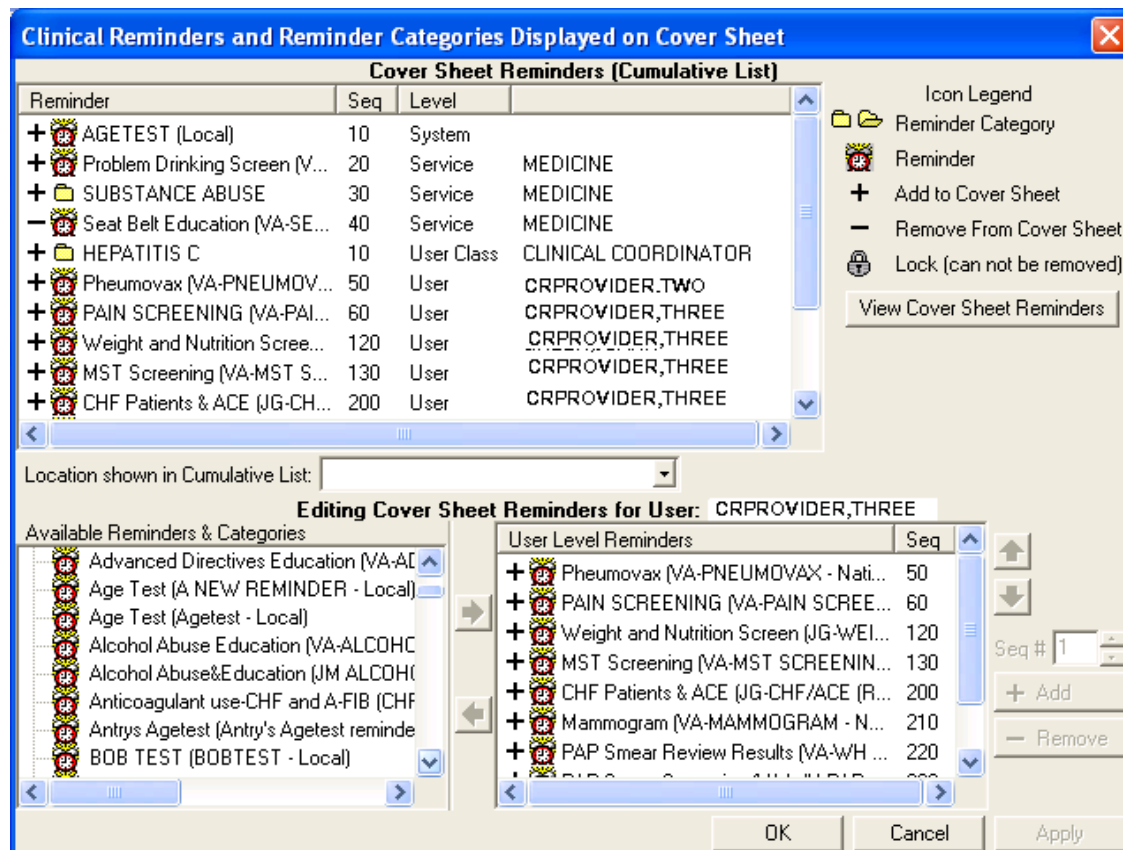
Since the cover sheet list is cumulative and removable, it is not always easy to determine exactly which reminders will be on a user's cover sheet list. Clicking on the **View Cover Sheet Reminders** button will display the final list for the user that has been selected at the User parameter level.



User level Cover Sheet Reminder Screen

A user level editing form is also available by clicking on the Tools menu, then options, then Clinical Reminders. This is the same sequence as shown in the previous section for getting to the user editing form.

This form lets the user add or remove reminders (with the exception of locked reminders) to their cover sheet list. The functionality is basically the same as that described above.



Setting User and System Levels

The following Forum dialog might clarify some issues about setting levels:

Subj: CPRS COVERSHEET REMINDERS SETUP THRU GUI

We are having some problems with appropriate clinical reminders showing on coversheet when set up at SYSTEM or SERVICE level in GUI. Reminders set for SYSTEM are also showing for a user in a service that is also set up (EX: Medical). In other words, all of the reminders set for Medical Service show on coversheet as well as those set under SYSTEM. When I completely remove the GUI setup for SYSTEM, users no longer have those clinical reminders show on coversheet. I need the SYSTEM setting for those not set up in a service.

Per NOIS CAH-1003-31162, site had a similar problem and resolution stated there was a specific hierarchy (that seems to be different from others). I thought that if there was something set at USER level, that would take precedence over SERVICE or SYSTEM, but that doesn't seem to be true in this case.

MY QUESTION IS THIS: Can someone explain what the hierarchy is when setting clinical reminders in GUI vs VISTA. Should we only have setup in one or the other? I cannot find anything on this in documentation.

1. The hierarchy for reminders displaying on the GUI cover sheet is cumulative, so there is really no hierarchy, only the ability to add to the list at different levels. System displays to all users, division adds to system for users in that division, service adds to division and/or system for users in that service, etc.
There used to be a hierarchy but that changed some time ago.
2. Check out HUN-0701-20018 RESTRICTED REMINDERS
You can have it both ways - Cumulative and Restricted.
3. You just have to remember you have two different set-ups if you add or subtract reminders.
4. You have to have the parameter for using the new reminder parameters set to yes to take advantage of this:

```
Select CPRS Reminder Configuration Option: NP New Reminder Parameters

Use New Reminder Parameters may be set for the following:

    1  User          USR      [choose from NEW PERSON]
    2  Service       SRV      [choose from SERVICE/SECTION]
    3  Division      DIV      [choose from INSTITUTION]
    4  System        SYS      [MARTINEZ.MED.VA.GOV]

Enter selection: 4 System MARTINEZ.MED.VA.GOV

-- Setting Use New Reminder Parameters for System: XXXVAMC.MED.VA.GOV ----
USE NEW REMINDER PARAMS: YES//
HUN-0701-20018 RESTRICTED REMINDERS
Description:
```

Q Our mental health providers should only see certain reminders due on a patient. I have them set under service to see:

```
Setting ORQQPX COVER SHEET REMINDERS for Service: MENTAL HEALTH -----
Select Display Sequence: ?

Display Sequence      Value
```

-----	-----
10	LR1006
20	LR581016
30	LR581011
40	LR581002
50	LR581007

They are seeing all reminders set at SYSTEM level + the additional reminders. Is something set up wrong or is this now cumulative? Is there a way so that they will only see the reminders relative to their service?

```
(12) Jul 05, 2001@09:43:26      CRSUPPORT,ONE
Well, we took a look at the parameters and the following...
Select  CPRS Reminder Configuration Option: np  New Reminder Parameters

Use New Reminder Parameters may be set for the following:

    1  User          USR      [choose from NEW PERSON]
    2  Service       SRV      [choose from SERVICE/SECTION]
    3  Division      DIV      [VAMC ALBANY PIA]
    4  System        SYS      [CPR.ISC-ALBANY.VA.GOV]
    5  Package       PKG      [ORDER ENTRY/RESULTS REPORTING]

Enter selection: 4  System    CPR.ISC-ALBANY.VA.GOV

-- Setting Use New Reminder Parameters  for System: CPR.ISC-ALBANY.VA.GOV ---
USE NEW REMINDER PARAMS: NO//
```

These can be set to YES or NO at any of the levels. I suggested they set the Mental Health and Optometry service to NO. Hopefully, now they will only see their DUE reminders and not everyone else's. The other alternative is to set the ORQQPX REMINDER FOLDERS to Other Categories for these services. Then within the Other Categories, set up specific category names for the service's specific reminders. This would group the reminders together.

Mental Health Dialogs Active

This option lets you modify the “Mental Health Active” CPRS parameter. You can activate mental health dialogs for reminder resolution processing at a user, service, division, or system level. When activated, mental health tests in a reminder dialog can be performed.

```
Select CPRS Reminder Configuration Option: MH Mental Health Dialogs Active
Mental Health Active may be set for the following:
```

1	User	USR	[choose from NEW PERSON]
2	Service	SRV	[choose from SERVICE/SECTION]
3	Division	DIV	[choose from INSTITUTION]
4	System	SYS	[DEVCUR.ISC-SLC.VA.GOV]

```
Enter selection: 1 User NEW PERSON
```

```
Select NEW PERSON NAME: CRPROVIDER,SIX sc
```

```
----- Setting Mental Health Active for User: CRPROVIDER,SIX -----
MENTAL HEALTH ACTIVE: YES// <Enter>
```

CA	Add/Edit Reminder Categories
CL	CPRS Lookup Categories
CS	CPRS Cover Sheet Reminder List
MH	Mental Health Dialogs Active
PN	Progress Note Headers
RA	Reminder GUI Resolution Active
DL	Default Outside Location
PT	Position Reminder Text at Cursor
NP	New Reminder Parameters

```
Select CPRS Reminder Configuration Option: <Enter>
```

Progress Note Headers

This option lets you modify the header inserted into the progress note when processing a reminder. It can be modified for user, location, or service. The default header is Clinical Reminders Activity.

Select CPRS Reminder Configuration Menu Option: **PN** Progress Note Headers

Progress Note Header may be set for the following:

- | | | | |
|---|----------|-----|---------------------------------|
| 1 | User | USR | [choose from NEW PERSON] |
| 2 | Location | LOC | [choose from HOSPITAL LOCATION] |
| 3 | Service | SRV | [choose from SERVICE/SECTION] |
| 4 | Division | DIV | [REGION 5] |
| 5 | System | SYS | [DEVCUR.ISC-SLC.VA.GOV] |
| 6 | Package | PKG | [CLINICAL REMINDERS] |

Enter selection: **1** User NEW PERSON

Select NEW PERSON NAME: **CRPROVIDER,ONE** jg

----- Setting Progress Note Header for User: CRPROVIDER,ONE -----

PROGRESS NOTE HEADER: ?

This response can be free text.

PROGRESS NOTE HEADER: **GREEN NOTES**

Reminder Resolution: Tobacco Use Screen

☒ Patient had tobacco use screening at this encounter. Level of Understanding: (None selected)

Comment:

☐ Patient received tobacco use screening at another facility.

☐ Patient declined tobacco use screening at this encounter.

☒ Exercise counseling codes

☒ This encounter Selectable Diagnoses: (None Selected)

☐ Primary Diagnosis Comment:

☐ Add to Problem List

☐ Previous encounter

☐ Exercise Counseling (V65.41)

☐ Other Counseling, Not Elsewhere Classified

☐ Person Feigning Illness (V65.2)

OK Cancel

Clear Clinical Maint < Back Next > Finish Cancel

GREEN NOTES

Tobacco Use Screen:

Patient had tobacco use screening at this encounter.

Exercise counseling codes

Patient Educations: **Tobacco Use Screening**

Progress Note Header text appears at the top of all text generated from reminder dialogs for a given note.

Reminder GUI Resolution Active

This option lets you activate GUI reminder resolution processing at a user, service, division, or system level. When activated, a reminders drawer is available on the notes tab for selecting and processing reminders.

```
Select CPRS Reminder Configuration Menus Option: RA  Reminder GUI Resolution Active

Reminders Active may be set for the following:

    1  User          USR      [choose from NEW PERSON]
    2  Service       SRV      [choose from SERVICE/SECTION]
    3  Division      DIV      [choose from INSTITUTION]
    4  System        SYS      [DEVCUR.ISC-SLC.VA.GOV]

Enter selection: 1  User      NEW PERSON
Select NEW PERSON NAME:  CRPROVIDER,ONE      jg

----- Setting Reminders Active   for User: CRPROVIDER,ONE -----
REMINDERS ACTIVE: YES// <Enter>
```

Default Outside Location

Within portions of a reminder dialog where historical encounter information is entered, a new parameter, ORQQPX DEFAULT LOCATIONS, can be set up to define default outside locations for the PXRMM OUTSIDE LOCATION prompt. Each free-text entry in this multi-valued parameter will appear at the top of the list of locations in the drop-down list in CPRS. If a number is entered as the free-text value, CPRS will attempt to locate an entry in the Institution file (#4) with the same internal entry number.

Example

```
Select CPRS Reminder Configuration Option: dl  Default Outside Location

Default Outside Locations may be set for the following:

    1  User          USR      [choose from NEW PERSON]
    3  Service       SRV      [choose from SERVICE/SECTION]
    4  Division      DIV      [choose from INSTITUTION]
    5  System        SYS      [DEVCUR.ISC-SLC.VA.GOV]
    6  Package       PKG      [ORDER ENTRY/RESULTS REPORTING]

Enter selection: 1  User      NEW PERSON
Select NEW PERSON NAME:  CRPROVIDER,TWO      TC
----- Setting Default Outside Locations   for User: CRPROVIDER,ONE -----
Select Display Sequence: 1

Display Sequence: 1//      1
Outside Location (Text or Pointer): 663
Select Display Sequence: 2
Are you adding 2 as a new Display Sequence? Yes// <Enter>  YES

Display Sequence: 2// <Enter>
Outside Location (Text or Pointer):  Local Pharmacy

Select Display Sequence: 3
Are you adding 3 as a new Display Sequence? Yes// <Enter>  YES
Display Sequence: 3// <Enter>      3
Outside Location (Text or Pointer):  640

Select Display Sequence: 4
```

```
Are you adding 4 as a new Display Sequence? Yes// <Enter> YES
Display Sequence: 4// <Enter> 4
Outside Location (Text or Pointer): Outside Physician's Office
Select Display Sequence: ???
```

Display Sequence	Value
-----	-----
1	663
2	Local Pharmacy
3	640
4	Outside Physician's Office

Default Location as it appears in CPRS:

Note that Seattle, WA and Palo Alto are entries in the institution file with internal entry numbers of 663 and 640, respectively.

Position Reminder Text at Cursor

The default behavior of reminder dialogs is to insert any text generated by the reminder dialog at the bottom of the current note. When the ORQQPX REMINDER TEXT AT CURSOR parameter is set, text will be inserted at the current cursor location.

```
Select CPRS Reminder Configuration Option: PT Position Reminder Text at Cursor
```

```
Position Reminder Text at Cursor may be set for the following:
```

1	User	USR	[choose from NEW PERSON]
3	Service	SRV	[choose from SERVICE/SECTION]
4	Division	DIV	[choose from INSTITUTION]
5	System	SYS	[DEVCUR.ISC-SLC.VA.GOV]

```
Enter selection: 1 User NEW PERSON
```

```
Select NEW PERSON NAME: <Enter> CRPROVIDER,ONE OC
```

```
----- Setting Position Reminder Text at Cursor for User: CRPROVIDER,ONE -----
REMINDER TEXT AT CURSOR: ?
```

```
Insert Reminder Dialog Generated Text at Cursor Location.
```

```
Select one of the following:
```

0	NO
1	YES

```
REMINDER TEXT AT CURSOR: YES
```

TIU Template Reminder Dialog Parameter

This option lets users edit the TIU TEMPLATE REMINDER DIALOG parameter.

```
Select CPRS Reminder Configuration Option: tiu  TIU Template Reminder Dialog Par
ameter

Reminder Dialogs allows as Templates may be set for the following:

    1  User          USR      [choose from NEW PERSON]
    3  Service       SRV      [choose from SERVICE/SECTION]
    4  Division      DIV      [choose from INSTITUTION]
    5  System        SYS      [DVF.FO-SLC.MED.VA.GOV]

Enter selection: 1  User      NEW PERSON
Select NEW PERSON NAME:      CRPROVIDER,TWO      tc

---- Setting Reminder Dialogs allows as Templates  for User: GREEN,JOANN ----
Select Display Sequence: ??

Contains Reminder Dialogs that are allowed to be used as TIU Templates.
This parameter is different than most others in that each level is
cumulative, so all Reminder Dialogs at the System, Division, Service
and User levels can be used in Templates.

Select Display Sequence: 1
Are you adding 1 as a new Display Sequence? Yes//      YES

Display Sequence: 1//      1
Clinical Reminder Dialog:  JG DIABETIC EYE EXAM      reminder dialog      LOCAL
Select Display Sequence:
```

GEC Status Check Active

A GEC Status Indicator may be added to the CPRS GUI Tools drop-down menu, to be viewed at any time and used to close the referral if needed. It may be set at the User or Team level through this option. See Appendix C for more information about GEC Referral and GEC Reports.

```
Select CPRS Reminder Configuration Option: GEC  GEC Status Check Active

Gec Status Check may be set for the following:

      1  User          USR      [choose from NEW PERSON]
      2  Team          TEA      [choose from TEAM]

Enter selection: 1  User      NEW PERSON
Select NEW PERSON NAME:  CRPROVIDER,ONE      OC

----- Setting Gec Status Check  for User: CRPROVIDER,ONE -----
GEC Status Check: YES// <Enter>
```

WH Print Now Active

The “Print Now” button on the Women’s Health review reminders is optional. A parameter can be set (at the system level) to allow the “Print Now” button to be added to the dialog. By default, “Print Now” is turned off: the CPRS Reminder Configuration Option called WH Print Now Active is released with a Value of NO. If the value is changed to YES, the “Print Now” button will appear on the dialog. Whether the “Print Now” button is added to the dialog or not, the default will always be that the letter is queued to the WH package.

The text in the progress note will be one of the following:

Print Now Active/Yes: Letter queued to print at Device Name on finish Date/Time

Print Now Active/No: Letter queued to WH package Date/Time

```
Select CPRS Reminder Configuration Option: WH  WH Print Now Active

WH Print Now Option Active may be set for the following:

      1  System          SYS      [DVF.FO-SLC.MED.VA.GOV]
      2  Division        DIV      [choose from INSTITUTION]
      3  Location         LOC      [choose from HOSPITAL LOCATION]
      4  Service          SRV      [choose from SERVICE/SECTION]
      5  Team (OE/RR)     OTL      [choose from OE/RR LIST]
      6  User             USR      [choose from NEW PERSON]

Enter selection: 6  User      NEW PERSON
Select NEW PERSON NAME:  CRPROVIDER,ONE      OC

----- Setting WH Print Now Option Active  for User: CRPROVIDER,ONE -----
Value: ?

Enter either 'Y' or 'N'.

Value: YES
```

Reminder Resolution: VA-PAP Smear Review Results

The VHA recommends clinical review of PAP smear results be recorded in the patient record.

WH PAP Smear Clinical Review

PAP SMEAR RESULTS: No unprocessed procedure results in WH package

Patient Notification

☒ Notify patient of NEM (No Evidence of Malignancy) results

☒ NEM results - next PAP 1 year

* Patient notified: ☒ Letter ☐ In-Person ☐ Phone Call

☐ Print Now

☐ NEM results - next PAP 2 years

☐ NEM results - next PAP 3 year

This box appears
if WH Print Now
is set to YES

Reminder Reports

The Reports menu contains Clinical Reminder reports that Clinical Reminders Managers and/or clinicians can use for summary and detailed level information about patients' due and satisfied reminders. This menu also contains reports that clinical coordinators can use to review extracted data, based on reminder definitions.

The EPI extract finding list and total options are specific to the Hepatitis C Extract project. The extracted data is based on the following reminders: VA-HEP C RISK ASSESSMENT, VA-NATIONAL EPI LAB EXTRACT, and VA-NATIONAL EPI RX EXTRACT.

The Extract QUERI totals option reports reminder and finding totals from extract summaries created by automatic QUERI extract runs.

The GEC Referral Report option is used to generate GEC Reports. Clinical Reminders V.2.0 includes a nationally standardized computer instrument called VA Geriatric Extended Care (GEC), which replaces paper forms for evaluating veterans for extended care needs.

Changes in Patch 12

- **New options:**

- **Finding Usage Report Option name: PXRМ FINDING USAGE REPORT**

A generalized finding usage report was created. The user inputs a list of findings to search for, and definitions, terms, and dialogs are searched to report where the findings are used. For findings that are from a standardized file, status and mapping information are included. This option was added as an item to the PXRМ REMINDER REPORTS menu.

- **Print percentages with the report output**

If the user replies "Y," the following percentages will be displayed:

%Applicable = Number Applicable/Total patient * 100

%Due = Number of Due/Number Applicable * 100

%Done = 100-%Due

This field has also been added to the Reminder Report template functionality.

- A new prompt called "Clinic Stops output" was added to reminder reports. This prompt allows the user to select what type of output to display when running a reminder report against selected clinic stops. For a detailed report, the user will have the options to display output either by Clinic Stops only (current output) or by Individual Clinics belonging to the clinic stops. For a summary report with the report totals to either set to "Individual Locations" or by Individual locations plus Totals by Facility," the user will have the same options as the detailed report and a third option of reporting the output by Clinic Stops and Individual Clinic(s).
- A new field was added to template called Creator. This field is populated when someone creates a reminder report template. This field will be used when someone accesses the template. The user accessing the template must either be the same user who created the template or must hold the PXRМ MGR key to be able to access the option to edit the

template. If the user is not the creator and does not hold the PXRMANAGER key, they will not see the prompt to edit the template.

- **Reminder Report Bug Fixes**
 - It was reported with PXRMAN*2*6 that when running a detailed PCMM Provider report, the output was no longer reporting by provider, but by associated clinic. This has been changed to report by Provider instead of reporting by associated clinic.
 - A problem was found when running a reminder summary report against multiple locations and multiple facilities. If the report was set to report the output by each facility and if there was a location with the same name as each facility and the patient was seen at the different location, the patient would not be included in the count for the location after the first location was counted.
 - For a number of years there have been reports that the output from Reminder Due Reports occasionally didn't show up. This problem was not reproducible and a number of things were done to try to find the cause. It appears that a possible cause might be that some sites have created aggressive cleanup routines to delete tasks that are not scheduled. This discovery led to a restructuring of reminder due reports. Previously, two tasks were created: the first assembled the data and the second produced the output. In order to not tie up the output device while the data was being assembled, the print job was not scheduled to run until the assembly job finished. In the new structure, the assembly and print job are combined, but the output device is not opened until it is ready to output the data.
 - When running a reminder report against multiple patient lists, the results of the report were printed out without the patient list name. Reminder reports were changed to display the patient list name with the patient list results.

Changes in Patch 6

- Timing data was added to the output of Reminder Due Reports.
- The code to build location lists for reminder due reports was replaced with a call to the standard location list builder used for evaluating location list findings. This makes location list building consistent throughout the package and provides improved performance.
- A problem with historical reports including patients whose Visit date was past the end of the report ending date was corrected.
- After patch PXRMAN*2*4, the list of clinics without patients when running reports against all outpatient locations was more accurate and this caused it to be greatly expanded. To make the list more manageable, two things were done. First, when building the clinic list, if the clinic's inactive date is before the beginning date of the report, the clinic will not be added to list. Second, a new prompt display "Print locations with no patients" was added. If the answer is affirmative, the list of locations without patients will be displayed at the end of the report. This field will be stored in a reminder report template. Remedy # 168443 and #168399.
- The same help text for the Service Category field will be used when creating a new report or editing a report template. Remedy #171186.
- An undefined error that occurred when running a detailed PCMM provider report was corrected. Remedy #175319.

- When reports were run on a future date and the future date was the first day of the month, any patients that had visits on that date were missed. This was corrected. Remedy #169086 and #176643.
- An undefined error that occurred when saving a reminder due report output to a patient list was fixed.
- Due to changes made elsewhere, a call to a Scheduling API to get appointment data was no longer needed for a historical summary report so it was removed. This should speed up summary reports.

Reminder Reports menu

Syn.	Display Name	Option Name	Description
RD	Reminders Due Report	PXRM REMINDERS DUE	For a selected patient and reminder, the report lists any reminders that are currently due.
RDU	Reminders Due Report (User)	PXRM REMINDERS DUE (USER)	Reminders Due Reports may be run from any report template allocated to a specific user.
RDT	User Report Templates	PXRM REPORT TEMPLATE (USER)	This option allows you to modify the PXRM REPORT TEMPLATE (USER) parameter. This parameter defines which reminder report templates are available to a restricted user.
EPT	Extract EPI Totals	PXRM EXTRACT EPI TOTALS	This option is used to summarize total counts for each type of finding item that was extracted for the target date range of the LREPI extract option run.
EPF	Extract EPI List by Finding and SSN	PXRM EXTRACT EPI FINDING LIST	This option allows you to print extract results. Extracted data is listed by finding item and social security number.
EQT	Extract Queri Totals	PXRM EXTRACT QUERI TOTALS	This option prints reminder and finding totals for extract summaries created by automatic extracts.
REV	Review Date Report	PXRM REVIEW DATES	The Review Date Report may be run for the following files: Computed Findings, Reminder Definition, Reminder Dialogs, and Reminder Taxonomies. A cutoff date may be entered and all review dates prior or equal to that date in the file selected are reported.
FUR	Finding Usage Report	PXRM FINDING USAGE REPORT	This provides a report of where selected Clinical Reminder findings are used in reminder definitions, reminder terms, and reminder dialogs.
GEC	GEC Referral Report	PXRM GEC REFERRAL REPORT	This is the option that is used to generate GEC Reports. GEC (Geriatrics Extended Care) are used for referral of geriatric patients to receive further care.

Multiple Uses for Reminder Reports

Reminder reports can be used for a variety of purposes:

Patient care:

- Future Appointments
- Which patients need an intervention?

Past Visits

- Which patients missed an intervention?
- Action Lists

Inpatients

- Which patients need an intervention prior to discharge?

Identify patients for case management

- Diabetic patients with poor control
- Identify patients with incomplete problem lists
- Patients with (+) Hep C test but no PL entry
- Identify high risk patients; e.g., on warfarin, amiodarone, etc.
- Track annual PPD due (Employee Health)

Quality Improvement

- Provide feedback (team/provider)
- Identify (*and share*) best practices
- Identify under-performers (*develop action plan*)
- Track performance
- Implementation of new reminders or new processes
- Identify process issues early (mismatch of workload growth versus staffing)
- Provide data for external review (JCAHO)

Management Tool

- Aggregate reports
- Facility / Service
- Team (primary care team)
- Clinic / Ward
- Provider-specific reports
- Primary Care Provider
- Encounter location
- If one provider per clinic location

Employee Performance & Evaluation

- Re-credentialing data for providers
- Annual Proficiency - Nursing
- Support for Special Advancement
- Support for Bonuses
- Employee Rewards & Recognition

Changes to finding date search

Version 2.0 of Clinical Reminders contains changes to the date range that can be used in searches. The changes include:

- Effective period and effective date are eliminated
 - Replaced with beginning date and ending date
- Any of the FileMan date formats are acceptable
 - May 14, 2003, T-1Y, T-2M, T-3D
 - Beginning date default is beginning of data
 - Ending date default is today

Benefits of date range finding searches

- The search for findings is done only in the specified date range.
- Retrospective reminder reports are now possible.

How date range searching works

As noted above, you can use dates like T-3M for the beginning date/time and T for the ending date/time. Since T stands for today, this tells Clinical Reminders to search between today and 3 months ago for results. When you run a reminder report, one of the prompts is for EFFECTIVE DUE DATE, and when a reminder report is run, “today” becomes whatever date is input in response to the EFFECTIVE DUE DATE prompt.

For example, if the beginning date/time was T-3M and the ending date/time was T and the effective due date was April 1, 2004, Clinical Reminders would search for results between January 1, 2004 and April 1, 2004. If you use an actual, as opposed to a symbolic, date/time, then it is never affected by what is input for EFFECTIVE DUE DATE. Each finding in the definition can have different values for beginning date/time and ending date/time, so you can search in different date ranges, as appropriate.

The key thing to remember is that “T” in a symbolic date is set to the value input for EFFECTIVE DUE DATE.

Reminders Due Report option

For a selected reminder, the report lists any reminders that are currently due.

Available report options are:

- Individual Patient
- Reminder Patient List
- Hospital Location (all patients with encounters)
- OE/RR Team (all patients in team)
- PCMM Provider (all practitioner patients)
- PCMM Team (all patients in team)

A SUMMARY report displays totals of how many patients of those selected have reminders due.

Alternatively, a DETAILED report displays patients with reminders due in alphabetical order. The report displays for each patient the date the reminder is due, the date the reminder was last done, and next appointment date. The detailed report can also list all future appointments.

A DETAILED report may be saved as a local patient list.

Example

```
Select Reminder Managers Menu Option: rp  Reminder Reports

RD      Reminders Due Report
RDU     Reminders Due Report (User)
RDT     User Report Templates
EPT     Extract EPI Totals
EPF     Extract EPI List by Finding and SSN
EQT     Extract QUERI Totals
GEC     GEC Referral Report
REV     Review Date Report
FUR     Finding Usage Report

Select Reminder Reports Option: Rd  Reminders Due Report

Select an existing REPORT TEMPLATE or return to continue:

    Select one of the following:

        I      Individual Patient
        R      Reminder Patient List
        L      Location
        O      OE/RR Team
        P      PCMM Provider
        T      PCMM Team

PATIENT SAMPLE: L// Select Reminder Reports Option: d  Reminders Due Report

Select an existing REPORT TEMPLATE or return to continue:

    Select one of the following:

        I      Individual Patient
        R      Reminder Patient List
        L      Location
        O      OE/RR Team
```

```

      P      PCMM Provider
      T      PCMM Team

PATIENT SAMPLE: L// o  OE/RR Team

Select TEAM: CRPROVIDER1      teamqa
Select another TEAM:

Enter EFFECTIVE DUE DATE: Aug 25, 2009//      (AUG 25, 2009)

      Select one of the following:

      D      Detailed
      S      Summary

TYPE OF REPORT: S// ummary

      Select one of the following:

      I      Individual Teams only
      R      Individual Teams plus Totals by Facility
      T      Totals by Facility only

REPORT TOTALS: I// r  Individual Teams plus Totals by Facility

Print locations with no patients? YES//

Print percentages with the report output? NO// y  YES

Select a REMINDER CATEGORY: CRWH REPORTS
      ...OK? Yes//      (Yes)

Select another REMINDER CATEGORY: CR TEST
      ...OK? Yes//      (Yes)

Select another REMINDER CATEGORY:

Select individual REMINDER:
VA-WH PAP SMEAR SCREENING      NATIONAL
Select another REMINDER:

Create a new report template: N// y  YES

STORE REPORT LOGIC IN TEMPLATE NAME: CR-wh
Are you adding 'jg-wh' as a new REMINDER REPORT TEMPLATE (the 109TH)? No// y
(Yes)
      REMINDER REPORT TEMPLATE REPORT TITLE: CR-wh
Changes to template 'CR-wh' have been saved

Print delimited output only: N// O

Include deceased patients on the list? N// O

Include test patients on the list? N// y  YES

Save due patients to a patient list: N// O

DEVICE: HOME//      HOME

Collecting patients from OE/RR List -

Evaluating Reminders /

```

Evaluating reminders /
Elapsed time for reminder evaluation: 4 secs

Aug 25, 2009 9:42:34 am Page 1

Clinical Reminders Due Report - Summary Report

Report Title: crl-wh
Patient Sample: OE/RR Team
OE/RR Team: teamqa

Reminder Category: CRWH REPORTS
Individual Reminder: WH SCREEN
VA-MAMMOGRAM
VA-WH PAP SMEAR SCREENING
Effective Due Date: 8/25/2009
Date run: 8/25/2009 9:38:35 am
Template Name: CR-wh
Summary report: Individual Teams plus Totals by Facility

Enter RETURN to continue or '^' to exit:

Aug 25, 2009 9:42:37 am Page 2

Clinical Reminders Due Report - Summary Report

Reminders due for TEAM_1A+2B for 8/25/2009

		# Patients with Reminders				
		Applicable	Due	%Appl	%Due	%Done
		-----	---	-----	----	-----
1	MST Screening	37	31	87	84	16
2	Breast Cancer Screen	9	9	21	100	0
3	Breast Cancer Screen	9	9	21	100	0
4	Mammogram	9	9	21	100	0
5	ITC 2001 Mammogram Example	9	9	21	100	0
6	CR MAM	0	0	0	0	0
7	NONVA test DFN=37	43	43	100	100	0
8	Pap Smear-Screening	13	13	31	100	0
9	Pap Smear-Review of Results	6	2	14	34	66
10	Pap Smear-F/U of Abnormal Results	0	0	0	0	0
11	WH SCREEN	41	41	96	100	0
12	PAP Smear Screening	13	13	31	100	0

Report run on 43 patients.

End of the report. Press ENTER/RETURN to continue...

Reminders Due Report – Patient List Template

```
Select Reminder Reports Option: d  Reminders Due Report

Select an existing REPORT TEMPLATE or return to continue: jgtest      HEP C
...OK? Yes//      (Yes)

Report Title:      HEP C
Report Type:      Summary Report
Patient Sample:    Location
Facility:          SALT LAKE CITY HCS
Location:          All Outpatient Locations (Prior Encounters)
Print Locations without Patients: YES
Print percentages with the output: NO
Reminder:          1  LABTEST
                  2  VA-NATIONAL EPI LAB EXTRACT
                  3  VA-NATIONAL EPI RX EXTRACT

Template Name:     jgtest
Date last run:     AUG 04, 2001@18:39:04
Service categories: A,I
                  A - AMBULATORY
                  I - IN HOSPITAL

Enter ENCOUNTER BEGINNING DATE:  t-2Y

This must be a past date. For detailed help type ??.

Enter ENCOUNTER BEGINNING DATE:  T-3Y  (AUG 25, 2006)
Enter ENCOUNTER ENDING DATE:  T  (AUG 25, 2009)

Enter EFFECTIVE DUE DATE: Aug 25, 2009//      (AUG 25, 2009)

Select one of the following:

I      Individual Locations only
R      Individual Locations plus Totals by Facility
T      Totals by Facility only

REPORT TOTALS: I// R  Individual Locations plus Totals by Facility

Print delimited output only: N// O

Include deceased patients on the list? N// O

Include test patients on the list? N// YES

Save due patients to a patient list: N// O

DEVICE: HOME//      HOME

Building hospital locations list -
Elapsed time for building hospital locations list: 0 secs

Building patient list /
Elapsed time for building patient list: 0 secs

Removing invalid encounter(s) /
Elapsed time for removing invalid encounter(s): 0 secs

Evaluating Reminders |
```

Evaluating reminders /
Elapsed time for reminder evaluation: 0 secs

Aug 25, 2009 12:36:04 pm Page 1

Clinical Reminders Due Report - Summary Report
Report Title: HEP C
Patient Sample: Location
Location: All Outpatient Locations (Prior Encounters)
Date Range: 8/25/2006 to 8/25/2009
Effective Due Date: 8/25/2009
Date run: 8/25/2009 12:34:40 pm
Template Name: jgtest
Summary report: Individual Locations plus Totals by Facility
Service categories: A,I
A - AMBULATORY
I - IN HOSPITAL

Enter RETURN to continue or '^' to exit:

Aug 25, 2009 12:36:08 pm Page 2

Clinical Reminders Due Report - Summary Report
Facility: SALT LAKE CITY HCS 660
Reminders due 8/25/2009 - CARDIOLOGY for 8/25/2006 to 8/25/2009

	# Patients with Reminders Applicable	Due
	-----	---
1 LABTEST	3	3
2 National Hepatitis Lab Extract	3	3
3 National Hepatitis Med Extract	3	3

Report run on 3 patients.

Enter RETURN to continue or '^' to exit:

Aug 25, 2009 12:36:16 pm Page 3

Clinical Reminders Due Report - Summary Report
Facility: SALT LAKE CITY HCS 660
Reminders due 8/25/2009 - TOTAL REPORT for 8/25/2006 to 8/25/2009

	# Patients with Reminders Applicable	Due
	-----	---
1 LABTEST	3	3
2 National Hepatitis Lab Extract	3	3
3 National Hepatitis Med Extract	3	3

Report run on 3 patients.

Report timing data:
Elapsed time for building hospital locations list: 0 secs
Elapsed time for building patient list: 0 secs
Elapsed time for reminder evaluation: 0 secs
Elapsed time for removing invalid encounter(s): 0 secs

End of the report. Press ENTER/RETURN to continue...
...

Reminders Due Report – Patient List

Select Reminder Managers Menu Option: RP Reminder Reports

RD	Reminders Due Report
RDU	Reminders Due Report (User)
RDT	User Report Templates
EPT	Extract EPI Totals
EPF	Extract EPI List by Finding and SSN
EQT	Extract QUERI Totals
GEC	GEC Referral Report
REV	Review Date Report
FUR	Finding Usage Report

Select Reminder Reports Option: Reminders Due Report

Select an existing REPORT TEMPLATE or return to continue:

Select one of the following:

I	Individual Patient
R	Reminder Patient List
L	Location
O	OE/RR Team
P	PCMM Provider
T	PCMM Team

PATIENT SAMPLE: L// r Reminder Patient List

Select REMINDER PATIENT LIST:

CRPROVIDER,ONE

Select another PATIENT LIST:

Enter EFFECTIVE DUE DATE: Aug 25, 2009// (AUG 25, 2009)

Select one of the following:

D	Detailed
S	Summary

TYPE OF REPORT: S// ummary

Print locations with no patients? YES//

Print percentages with the report output? NO//

Select a REMINDER CATEGORY: AGP TEST

...OK? Yes// (Yes)

Select another REMINDER CATEGORY: ??

: slc REMINDER CATEGORY

...OK? Yes// (Yes)

Select another REMINDER CATEGORY: iRAQ_AFGHAN

...OK? Yes// (Yes)

Select another REMINDER CATEGORY:

Select individual REMINDER: VA-WH PAP SMEAR SCREENING NATIONAL

Select another REMINDER: va-dePRESSION SCREENING NATIONAL

Select another REMINDER: VA-WH MAMMOGRAM SCREENING NATIONAL

Select another REMINDER:

Create a new report template: N// O

Print delimited output only: N// O

Include deceased patients on the list? N// O

Include test patients on the list? N// y YES

Save due patients to a patient list: N// O

DEVICE: HOME// HOME

Collecting patients from Reminder Patient List /

Evaluating reminders /

Elapsed time for reminder evaluation: 6 secs

Aug 25, 2009 12:43:46 pm Page 1

Clinical Reminders Due Report - Summary Report

Patient Sample: Patient List
Patient List: CRPROVIDER,ONE
Reminder Category: AGP TEST
Individual Reminder: VA-WH PAP SMEAR SCREENING
VA-DEPRESSION SCREENING
VA-WH MAMMOGRAM SCREENING
Effective Due Date: 8/25/2009
Date run: 8/25/2009 12:41:18 pm

Enter RETURN to continue or '^' to exit:

Aug 25, 2009 12:43:57 pm Page 3

Clinical Reminders Due Report - Summary Report

Patient List: CRPROVIDER,ONE for 8/25/2009

		# Patients with Reminders	
		Applicable	Due
		-----	---
1	AGP ERROR	0	0
2	NONVA test DFN=37	14	14
3	Pap Smear-Screening	3	3
4	Pap Smear-Review of Results	2	0
5	Pap Smear-F/U of Abnormal Results	0	0
6	PAIN SCREENING	0	0
7	ITC Pneumovax	13	13
8	SLC Life style Education	6	6
9	new reminder	0	0
10	Hepatitis C Risk Assessment	14	12
11	Influenza Vaccine	12	12
12	Smoking Cessation Education	4	4
13	Pneumovax	13	10
14	ITC 2001 diabetes example	1	1
15	ITC 2001 Mammogram Example	3	3
16	SLC Diabetic Foot Care Education	14	14

17	Diabetic Eye Exam	14	14
18	SLC Cancer Screen	5	5
19	Ischemic HD/Post MI Follow Up	0	0
20	Breast Exam	4	4
21	Advanced Directives Education	14	13
22	LTC Oversight Visit	14	14
23	Weight and Nutrition Screen	13	13
24	IHD Lipid Profile	2	2
25	EXCHANGE CHANGES	0	0
26	Tobacco Cessation Education	11	11
27	JG TOBACCO USE SCREEN	14	14
28	Problem Drinking Screen	14	14
29	Weight and Nutrition Screen	13	13
30	Alcohol Abuse Education	14	14
31	Weight	14	14
32	Exercise Education	14	14
33	JG-Weight	14	14
34	Taxonomy Test	14	14
35	Patch5 VA-Pain Screening	14	14
36	PAP Smear Review Results	2	2
37	Iraq&Afghan Post-Deployment Screen	1	1
38	PAP Smear Screening	3	3
39	Depression Screening	14	14
40	Mammogram Screening	2	2

Report run on 14 patients.

Report timing data:

Elapsed time for reminder evaluation: 6 secs

End of the report. Press ENTER/RETURN to continue...

Extract EPI Totals

Extract EPI Total reports are generated each month by a Lab package LREPI run that processes the following national reminders related to Hepatitis C:

VA-NATIONAL EPI DB UPDATE

VA-NATIONAL EPI LAB EXTRACT

VA-NATIONAL EPI RX EXTRACT.

Select Reminder Reports Option: Extract EPI Totals

START WITH NAME: FIRST// ??

The NAME is the combination of a unique abbreviation for the type of extract. The file contains different extract types:

1) EPI - Hep C Extract

Extracts of this type are prefixed LREPI. The following is an example of EPI lookup information:

160	LREPI 00/05 061500	Jun 15,2000@14:52:36
161	LREPI 00/06 073100	Jul 15,2000@14:55:40
162	LREPI 00/07 081500	Aug 15,2000@15:42:24

The YY/MM represents the ending year and month of the extract date range, and the run date in the format YYMMDD. The date and time of the run is an identifier.

2) QUERI (IHD and MH)

Extracts of this type are prefixed VA-IHD or VA-MH. The following is an example of IHD lookup information:

```
1  VA-IHD QUERI 2000 M2      Nov 27,2002@13:20:26
2  VA-IHD QUERI 2000 M3      Nov 27,2002@13:24:08
3  VA-IHD QUERI 2000 M4      Nov 27,2002@13:25:13
```

The year and month of the extract are included in the extract name. The date and time of the run is an identifier.

START WITH NAME: FIRST// LREPI 05/02

GO TO NAME: LAST//

DEVICE: ;;999 TCP Right Margin: 80//

REMINDER EXTRACT TOTALS JAN 6,2006 16:30 PAGE 1

LREPI 05/02 031505 Date Range: FEB 1,2005-FEB 28,2005
Extract Date: MAR 15,2005 22:16

Total Patients Evaluated: 766

Total Patients with Findings: 718

Totals by Finding Item	Finding Count	Unique Patient Count
INTERFERON ALFA-2B	1	1
HEPATITIS C ANTIBODY	207	207
TOT. BILIRUBIN	190	190
RIBAVIRIN	35	35
AST	192	192
ALT	198	198
VA-HEPATITIS C INFECTION	127	127
INTERFERON BETA-1B	4	4
INTERFERON BETA-1A	18	18
INTERFERON ALFACON-1	5	5
RISK FACTOR FOR HEPATITIS C	110	110
NO RISK FACTORS FOR HEP C	319	319
DECLINED HEP C RISK ASSESSMENT	8	8

LREPI 05/03 041505 Date Range: MAR 1,2005-MAR 31,2005
Extract Date: APR 15,2005 22:12

Total Patients Evaluated: 841

Total Patients with Findings: 802

Totals by Finding Item	Finding Count	Unique Patient Count
INTERFERON ALFA-2B	2	2
HBSAG	1	1
HEPATITIS C ANTIBODY	446	223
RIBAVIRIN	47	47
VA-HEPATITIS C INFECTION	119	119
INTERFERON BETA-1B	9	9
INTERFERON BETA-1A	16	16
INTERFERON ALFACON-1	8	8
HBSAB	33	33
RISK FACTOR FOR HEPATITIS C	132	132
NO RISK FACTORS FOR HEP C	372	372
DECLINED HEP C RISK ASSESSMENT	3	3

Press RETURN to continue...

Extract QUERI Totals

```
RD      Reminders Due Report
RDU     Reminders Due Report (User)
RDT     User Report Templates
EPT     Extract EPI Totals
EPF     Extract EPI List by Finding and SSN
EQT     Extract QUERI Totals
GEC     GEC Referral Report
REV     Review Date Report
FUR     Finding Usage Report
Select Reminder Reports Option: EQT Extract QUERI Totals

START WITH NAME: FIRST// ??

The NAME is the combination of a unique abbreviation for the type of
extract (e.g., LREPI), the YY/MM representing the ending year and
month of the extract date range, and the run date in the format
YYMMDD. The date and time of the run is an identifier. The following
is an example of lookup information.
160      LREPI 00/05 061500      Jun 15,2000@14:52:36
161      LREPI 00/06 073100      Jul 15,2000@14:55:40
162      LREPI 00/07 081500      Aug 15,2000@15:42:24
163      LREPI 00/05 082200      Aug 22,2000@02:44:54
164      LREPI 00/08 082500      Aug 25,2000@14:24:59

START WITH NAME: FIRST// <Enter>
START WITH NAME: FIRST// 164
GO TO NAME: LAST// <Enter>
DEVICE: ANYWHERE      Right Margin: 80// <Enter>
REMINDER EXTRACT SUMMARY LIST      JAN 10,2003 09:14      PAGE 1
-----

VA MH QUERI 2000 M2      Date Range: FEB 1,2000-FEB 28,2000
                        Extract Date: JAN 3,2003

Extract Sequence: 001
Reminder:      VA-DEPRESSION SCREENING
Station:      CRSITE ONE
Patient List:  VA-MH QUERI 2000 M2 QUALIFYING VISIT

Reminder Totals:      Total      Applicable      N/A      Due      Not Due
                      1000      899      101      200      699

Finding Totals:

Sequence:      001
Finding Group:  VA-DEPRESSION SCREEN NON APPLICABLE
Term:          DEPRESSION DIAGNOSIS
Group Type:    MOST RECENT FINDING PATIENT COUNT
Group Status:  TOTAL PATIENTS
Finding Count by Reminder Status:
              Total      Applicable      N/A      Due      Not Due
                20      20      0      20      0

Sequence:      002
Finding Group:  VA-DEPRESSION SCREEN NON APPLICABLE
Term:          PSYCHOTHERAPY
Group Type:    MOST RECENT FINDING PATIENT COUNT
Group Status:  TOTAL PATIENTS
Finding Count by Reminder Status:
```

	Total	Applicable	N/A	Due	Not Due
Sequence:	003				
Finding Group:	VA-DEPRESSION SCREEN NON APPLICABLE				
Term:	ANTIDEPRESSANT MEDICATION				
Group Type:	MOST RECENT FINDING PATIENT COUNT				
Group Status:	TOTAL PATIENTS				
Finding Count by Reminder Status:					
	Total	Applicable	N/A	Due	Not Due
Sequence:	004				
Finding Group:	VA-DEPRESSION SCREEN RESULT				
Term:	DEPRESSION SCREEN NEGATIVE				
Group Type:	MOST RECENT FINDING PATIENT COUNT				
Group Status:	APPLICABLE PATIENTS				
Finding Count by Reminder Status:					
	Total	Applicable	N/A	Due	Not Due
Sequence:	005				
Finding Group:	VA-DEPRESSION SCREEN RESULT				
Term:	DEPRESSION SCREEN POSITIVE				
Group Type:	MOST RECENT FINDING PATIENT COUNT				
Group Status:	APPLICABLE PATIENTS				
Finding Count by Reminder Status:					
	Total	Applicable	N/A	Due	Not Due
Sequence:	006				
Finding Group:	VA-REFUSED DEPRESSION SCREEN				
Term:	REFUSED DEPRESSION SCREENING				
Group Type:	MOST RECENT FINDING COUNT				
Group Status:	TOTAL PATIENTS				
Finding Count by Reminder Status:					
	Total	Applicable	N/A	Due	Not Due
Extract Sequence:	002				
Reminder:	VA-POS DEPRESSION SCREEN FOLLOW UP				
Station:	CRSITE HCS				
Patient List:	VA-MH QUERI 2000 M2 QUALIFYING VISIT				
Reminder Totals:	Total	Applicable	N/A	Due	Not Due
	1000	300	700	10	690
Finding Totals:					
Sequence:	001				
Finding Group:	VA-POS DEPRESSION SCREEN FOLLOW UP				
Term:	DEPRESSION SCREEN NEGATIVE				
Group Type:	MOST RECENT FINDING PATIENT COUNT				
Group Status:	TOTAL PATIENTS				
Finding Count by Reminder Status:					
	Total	Applicable	N/A	Due	Not Due
Sequence:	002				
Finding Group:	VA-POS DEPRESSION SCREEN FOLLOW UP				

Term: DEPRESSION ASSESS INCONCLUSIVE (?MDD)
 Group Type: MOST RECENT FINDING PATIENT COUNT
 Group Status: TOTAL PATIENTS
 Finding Count by Reminder Status:

Total	Applicable	N/A	Due	Not Due
-------	------------	-----	-----	---------

Sequence: 003
 Finding Group: VA-POS DEPRESSION SCREEN FOLLOW UP
 Term: REFERRAL TO MENTAL HEALTH
 Group Type: MOST RECENT FINDING PATIENT COUNT
 Group Status: TOTAL PATIENTS
 Finding Count by Reminder Status:

Total	Applicable	N/A	Due	Not Due
-------	------------	-----	-----	---------

Sequence: 004
 Finding Group: VA-POS DEPRESSION SCREEN FOLLOW UP
 Term: DEPRESSION TO BE MANAGED IN PC
 Group Type: MOST RECENT FINDING PATIENT COUNT
 Group Status: TOTAL PATIENTS
 Finding Count by Reminder Status:

Total	Applicable	N/A	Due	Not Due
-------	------------	-----	-----	---------

Extract Sequence: 003
 Reminder: VA-ANTIPSYCHOTIC MED SIDE EFF EVAL
 Station: CRSITE HCS
 Patient List: VA-MH QUERI 2000 M2 QUALIFYING VISIT

Reminder Totals:	Total	Applicable	N/A	Due	Not Due
	1000	3	997	1	2

Finding Totals:

Sequence: 001
 Finding Group: VA-ANTIPSYCHOTIC DRUGS
 Term: AIM EVALUATION NEGATIVE
 Group Type: MOST RECENT FINDING PATIENT COUNT
 Group Status: TOTAL PATIENTS
 Finding Count by Reminder Status:

Total	Applicable	N/A	Due	Not Due
-------	------------	-----	-----	---------

Sequence: 002
 Finding Group: VA-ANTIPSYCHOTIC DRUGS
 Term: AIM EVALUATION POSITIVE
 Group Type: MOST RECENT FINDING PATIENT COUNT
 Group Status: TOTAL PATIENTS
 Finding Count by Reminder Status:

Total	Applicable	N/A	Due	Not Due
-------	------------	-----	-----	---------

Sequence: 003
 Finding Group: VA-ANTIPSYCHOTIC DRUGS
 Term: REFUSED ANTIPSYCHOTICS
 Group Type: MOST RECENT FINDING PATIENT COUNT
 Group Status: TOTAL PATIENTS
 Finding Count by Reminder Status:

Future Appointments

A new prompt has been added that will only display if Show All future appointment is selected. The prompt is Display Appointment Location. If you answer Y, the clinic name will appear with the future appointment date/time. If you enter N, only the date/time will display.

If the patient is an outpatient, it will sort by next appointment date. If the patient is a currently an inpatient and has an outpatient appointment schedule, it will sort by the Room-Bed location.

When displaying the next appointment, if the patient is an inpatient, the Room-Bed will be displayed followed by (Inp.). Then the next appointment will display under this data. If you select Display All future appointments, the appointment will display under the patient name.

GEC Referral Report

GEC Referral Reports display the percentage of patients referred to select GEC programs who meet the eligibility criteria as outlined in the Under Secretary for Health's Information Letter IL 10-2003-005 and VHA Handbook 1140.2.

VA GEC Reports provide quarterly statistical reports on the following VA-funded programs.

- Homemaker/Home Health Aide, when Funding Source=VA
- Adult Day Health Care, when Funding Source=VA
- VA In-Home Respite, when Funding Source=VA
- Care Coordination, when Funding Source=VA

When sites submit their quarterly reports, the national office will be able to generate a report for the General Accounting Office/Office of Inspector General that demonstrates compliance with the standards for assessing patients prior to placement in VA-funded programs.

These same reports can be used at the local level to evaluate how well a site is performing in meeting compliance standards for placement of patients in VA funded GEC programs.

Changes in Patch 4

- An undefined error, <UNDEFINED>CALCMON+12<>PXRMG2M1, occurred when the scheduled event fired off at the beginning of each month. That has now been repaired.
- Several of the GEC Reports were not showing a complete list of patients or providers. This has now been corrected. The division and age of the patient has been added to some reports to help in identifying the patient.
- There is a new choice in the GEC reports menu that will give the sites the option to open a closed referral, merge two referrals, or close an open referral.
- The GEC Care Recommendation Dialog has been modified to allow more than one selection when a person wants to refer a patient to more than one location.
- A problem with the user being able to take some editing actions on GEC dialogs have been corrected, so the user is not able to copy or delete dialog groups from the GEC dialogs.
- Geriatric Extended Care Reports were not collecting the correct data. This was corrected.
- The email addresses of the remote members of mail group GEC NATIONAL ROLLUP are updated.
- As requested by the primary GEC stakeholder, several reminder dialog entries were moved from the Nursing Assessment GEC dialog to the Care Recommendation GEC dialog. A post-install routine changes several Health Factors from one GEC dialog to another.

Example

Select Reminder Reports Option: **GEC** GEC Referral Report

All Reports will print on 80 Columns

Select one of the following:

- 1 Category
- 2 Patient
- 3 Provider by Patient
- 4 Referral Date
- 5 Location
- 6 Referral Count Totals
- 7 Category-Referred Service
- 8 Summary (Score)
- 9 'Home Help' Eligibility
- 10 Restore or Merge Referrals

Select Option or ^ to Exit: 8// **<Enter>** Summary (Score)

Select a Beginning Historical Date.

BEGINNING date or ^ to exit: (1/1/1988 - 6/30/2004): T-60//**<Enter>** (MAY 01, 2004)

Select Ending Date.

ENDING date or ^ to exit: (5/1/2004 - 6/30/2004): T//**<Enter>** (JUN 30, 2004)

Select one of the following:

- A All Patients
- M Multiple Patients

Select Patients or ^ to exit: A//**<Enter>** 11 Patients

Select one of the following:

- F Formatted
- D Delimited

Select Report Format or ^ to exit: F//**<Enter>** or matted

DEVICE: HOME//**<Enter>** ANYWHERE Right Margin: 80// **<Enter>**

=====

GEC Patient-Summary (Score)

Data on Complete Referrals Only

From: 05/01/2004 To: 06/30/2004

Name	SSN	Finished Date	IADL	Basic ADL	Skilled Care	Patient Behaviors	TOTAL ACROSS
CRPATIENT, ONE	(666809999)	06/15/2004	0	0	2	4	6
CRPATIENT, ONE	(666809999)	06/15/2004	0	7	9	5	21
CRPATIENT, TWO	(666809990)	05/04/2004	0	0	0	0	0
CRPATIENT, SIX	(666009999)	05/11/2004	0	0	0	0	0
CRPATIENT, SIX	(666009999)	05/11/2004	0	0	0	0	0
Totals > >			0	7	11	9	27
Means > >			0.0	1.2	1.8	1.5	4.5
Standard Deviations > >			0.0	3.1	4.1	2.9	9.8

Enter RETURN to continue or '^' to exit: **<Enter>**

Finding Usage Report

This new report provides a listing of the reminder definitions, reminder terms, and reminder dialogs in which selected Clinical Reminder findings are used. This can help you troubleshoot when new reminders and dialogs are distributed to replace existing ones.

Reminders Manager Key:

The report can be sent as a mail message to designated recipients.

```
Select Reminder Reports Option:  Finding Usage Report
Clinical Reminders Finding Usage Report

Select from the following reminder findings (* signifies standardized):
  1 - DRUG
  2 - EDUCATION TOPIC
  3 - EXAM
  4 - HEALTH FACTOR
  5 - IMMUNIZATION *
  6 - LABORATORY TEST
  7 - MH TESTS AND SURVEYS
  8 - ORDERABLE ITEM
  9 - RADIOLOGY PROCEDURE
 10 - REMINDER COMPUTED FINDING
 11 - REMINDER TAXONOMY
 12 - REMINDER TERM
 13 - SKIN TEST
 14 - VA DRUG CLASS *
 15 - VA GENERIC *
 16 - VITAL MEASUREMENT *
 17 - REMINDER LOCATION LIST
 18 - PROCEDURE
 19 - ICD9 DIAGNOSIS
 20 - ORDER DIALOG
 21 - WH NOTIFICATION PURPOSE
Enter your list for the report.:  (1-21): 5
Search for all or selected IMMUNIZATIONS?

      Select one of the following:

          1          ALL
          2          SELECTED

Enter response: ALL// 2  SELECTED
Select IMMUNIZATION: in
  1  INFLUENZA          INFLUENZA
  2  INFLUENZA B          HIB
  3  INFLUENZA VAC OTHER LOCATION          FLU OUTSID
  4  INFLUENZA VACCINE PAST VISIT          FLU
  5  INFLUENZA-OTHER REASON NOT GIVEN          FLU-OTHER
Press <RETURN> to see more, '^' to exit this list, OR
CHOOSE 1-5: 1  INFLUENZA          INFLUENZA
Select IMMUNIZATION:
Deliver the report as a MailMan message? Y//
```

Subj: Clinical Reminders Finding Usage Report [#49717] 05/08/09@16:02 70
lines
From: POSTMASTER (Sender: CRUSER,THIRTEEN) In 'IN' basket. Page 1 *New*

Clinical Reminder finding usage report.

The following IMMUNIZATIONS are used as Clinical Reminder findings:

=====

IMMUNIZATION - INFLUENZA (IEN=12)

INFLUENZA is used in the following Definitions:

VA-*INFLUENZA IMMUNIZATION (IEN=8)
Finding number 1

VA-INFLUENZA VACCINE (IEN=26)
Finding number 1

IMMTEST1 (IEN=71)
Finding number 14

MHV INFLUENZA VACCINE (IEN=208)
Finding number 1

jg FLU VACCINE (IEN=209)
Finding number 1

MHV INFLUENZA VACCINE2 (IEN=246)
Finding number 1

INFLUENZA GOOD (IEN=264)
Finding number 1

INFLUENZA BAD (IEN=265)
Finding number 1

ERROR (IEN=275)
Finding number 14

AGP IMMUNIZATION (IEN=361)
Finding number 1

IMMTEST (IEN=660008)
Finding number 14

INFLUENZA is used in the following Terms:

INFLUENZA IMMUNIZATION (IEN=491)
Finding number 3

PKR LONG IMM TEST (IEN=766)
Finding number 3

INFLUENZA is used in the following Dialogs:

Dialog element ZZPJH TIME DONE (IEN=496), used in the

Finding Item field

Dialog element AGP INSTALL ELEMENT (IEN=1060), used in the Finding Item field

Dialog element IM INFLUENZA DONE ELSEWHERE (IEN=660065), used in the the Finding Item field

Dialog element IM INFLUENZA CONTRA (IEN=660066), used in the Finding Item field

Dialog element CONTRAINDICATION TEST (IEN=660000137), used in the Finding Item field

Dialog element TEST PLAN IMMUNIZATION (IEN=660000139), used in the Finding Item field

Dialog element DEMO ELEMENT 1 (IEN=660000173), used in the Finding Item field
Enter message action (in IN basket): Ignore//

MST Synchronization Management Project

The Millennium Healthcare and Benefit Act, Public Law 106-117, Section 115, Counseling and Treatment for Veterans Who Have Experienced Sexual Trauma, includes provisions for development of a formal mechanism for reporting on outreach activities and require the Veterans Administration (VA) to provide counseling and appropriate care and services for treatment of Military Sexual Trauma (MST). As a result, the Women Veterans Health Program (WVHP) requested Veterans Health Information System and Technology Architecture (VistA) enhancements to support the screening of all veterans (men and women) for MST, identification of non-VA workload associated with MST, and enhanced national reporting of MST data. Veterans Health Administration (VHA) Directive 2000-008 and VHA Directive 99-039 provided guidance in the screening, tracking, and documentation of MST in all enrolled veterans who utilize VHA. Additionally, a “Best Practice” manual provided field guidance on creating local Implementation Support Teams (IST), developing MST screening processes, and documenting screening results using the VistA Military Sexual Trauma database within the Patient Registration Package.

In FY1999, VistA enhancements provided the ability to record or edit veterans’ MST status in VistA and also created an MST “outpatient classification code” similar to Agent Orange. Once a veteran has reported MST, the classification code triggers the staff via VistA prompts when they are checking out an encounter to be prompted for whether the encounter is related to MST. VistA began including the MST status and classification code in Patient Care Encounter (PCE) transmissions in May 2000. The Patient Treatment File (PTF) patch was released to sites on March 6, 2001.

MST Scope of Changes

The effort for implementing the MST section of the Millennium Healthcare and Benefits Act (Mill Bill) impacted Fee Basis, Women Health (WH), Health Eligibility Center (HEC/Enrollment), Clinician Desktop, Patient Information Management Systems (PIMS), the Corporate Databases, and VistA software packages.

The enhancements provided a means for identifying non-VA MST workload in the Fee Basis application, clinical reminders to clinicians, and specifications for the VA and non-VA workload reports to be generated at the Austin Automation Center (AAC). Also, PIMS and HEC will manage the MST status sharing between sites to minimize the instances in which a veteran is repeatedly asked about MST status. HEC will act as the authoritative database source.

The data for MST will be entered locally in the VistA system and will be shared with the HEC as part of the current HL7 messaging capabilities. The information entered in the VistA system is sent to the HEC so that it can be transmitted to other VA health care facilities of record. Locally, MST-related, non-VA care will be entered into the Fee Basis system. This information will be sent to Central Fee, where Outpatient non-VA data will be used for national reporting. Inpatient non-VA care is sent to PTF. The system requirements, identified in this document, include additions and modifications to existing field entries on the VistA, HEC, Fee Basis, and Central Fee. There will be no changes to the NPCD or PTF database. NPCD will continue to accept and store MST data.

MST System Features

There are multiple objectives with Mill Bill MST. To determine the amount of care being provided to veterans who have experienced MST, the Fee Basis system will locally keep track of MST related non-VA care. This information will be sent to Central Fee so that reports reflecting the national experience can be generated. In order to improve data quality, redundant fields in the WVH application and PIMS will be synchronized. Legislation mandates that all veterans be screened for MST. To reduce the number of times a veteran would be screened for MST, VAMCs, via PIMS, will provide the HEC with MST status as it is derived. The HEC will be the authoritative database source for MST status and be able to provide other VAMCs with a veteran's MST status upon request. **Clinical reminders provides a mechanism to screen veterans who do not have a MST status for MST and assists with the entry of that information.** VHA wants to have reports from the National Databases (NPCD and Central Fee) that will look at the population and trending of MST across VHA.

CLINICAL REMINDERS MST FUNCTIONALITY (Patch PXR*1.5*7)

This patch, released in January 2002, provided new functionality for Clinical Reminders to help sites meet the mandate to collect Military Sexual Trauma (MST) data.

The patch included:

- A new reminder definition, VA-MST SCREENING, and the findings used by the definition. The findings include:
- Three reminder terms: VA-MST DECLINES REPORT, VA-MST NEGATIVE REPORT, and VA-MST POSITIVE REPORT
- A computed finding: VA-MST STATUS
- Four health factors: MST CATEGORY, MST DECLINES TO ANSWER, MST NO DOES NOT REPORT, and MST YES REPORTS
- A reminder dialog: VA-MST SCREENING.

The reminder dialog has three elements that update PCE with health factor findings (MST NO DOES NOT REPORT, MST YES REPORTS and MST DECLINES TO ANSWER). You will be able to capture data directly to the MST HISTORY file, #29.11, using this reminder dialog.

If your site is already capturing MST data via health factors, education topics, or exams, there is functionality in this patch that will help you synchronize this data with the data in the MST HISTORY file, #29.11. Before the synchronization can be done, you must map your local findings to the appropriate VA-MST reminder term. If you have been using health factors that are similar to those listed above, you may consider renaming your health factors to match the names listed above. The renaming must be done **BEFORE** the patch is installed or it will not work. If you choose not to do this, or your site has been using education topics or exams, you will need to map your findings to these terms before the initial synchronization can be done.

If your site is already capturing MST data via local health factors, education topics, and exams, the national dialog and component elements and groups may be copied to local dialogs, which may then be modified to use local findings. ***The national dialog and component elements and groups may not be edited.*** Alternatively, if you already have reminder dialogs for MST, you may continue to use these if the findings in these dialogs are mapped to the new VA-MST terms.

Reminders MST Synchronization Management Menu

This patch also included a new option on the Reminder Managers Menu called Reminders MST Synchronization Management. There are two options on this menu: one for doing the synchronization (Reminders MST Synchronization), and one for checking on the synchronization (Reminders MST Synchronization Report). The first option will allow you to schedule a background job that does the synchronization. The report option will give you data on the initial synchronization and the last daily synchronization.

Syn.	Name	Option Name	Description
SYN	Reminders MST Synchronization	PXRM MST SYNCHRONIZATION	This option is used to run the Clinical Reminders MST synchronization. The synchronization should not be run until the site has finished mapping the MST reminder terms.
REP	Reminders MST Synchronization Report	PXRM MST REPORT	This option runs the Clinical Reminders MST synchronization report.

Reminders MST Synchronization Example

```
Select Reminder Managers Menu Option: MST  Reminders MST Synchronization Management

      SYN      Reminders MST Synchronization
      REP      Reminders MST Synchronization Report

Select Reminders MST Synchronization Management Option: SYN  Reminders MST
Synchronization
Queue the Clinical Reminders MST synchronization.
Enter the date and time you want the job to start.
It must be after 09/11/2001@09:01:33  T@1
Do you want to run the MST synchronization at the same time every day? Y// NO
Task number 594549 queued.
```

Reminders MST Synchronization Report

The report option gives you data on the initial synchronization and the last daily synchronization.

Example

```
Select Reminders MST Synchronization Management Option: rep
  Reminders MST Synchronization Report

Clinical Reminders MST Synchronization Report
-----
Initial synchronization date: Aug 28, 2001@15:12:15
Number of updates made: 4
Elapsed time: 4:00:34

Last daily synchronization date: Sep 05, 2001@08:45:48
Number of updates made: 0
Elapsed time: 3:57:34
```

Reminder Parameters Menu

This menu contains three options: Edit Site Disclaimer, Edit Web Sites, and Edit Number of MH Questions.

Edit Web Sites was created in response to the NOIS, MAC-1000-60473 - Web site shows in all reminders. Sites were unable to get websites to show for an individual reminder – a default URL and website text overrides individual entries. In Version 1.5, the only way to edit or delete the default website was through VA FileMan. It was recommended that developers create an easier way for a user edit the default URL Web addresses.

Syn.	Name	Option Name	Description
ESD	Edit Site Disclaimer	PXRM EDIT SITE DISCLAIMER	This option allows the site disclaimer used in Health Summary components to be modified.
EWS	Edit Web Sites	PXRM EDIT WEB SITES	This option allows the reminder web sites used in CPRS GUI to be modified.
MH	Edit Number of MH Questions	PXRM MH QUESTIONS	This option allows the site to select the maximum number of MH questions to be used as Reminder Dialog Finding Items.

Edit Site Disclaimer Example

```
Select Reminder Parameters Option: esd  Edit Site Disclaimer
SITE REMINDER DISCLAIMER:
  No existing text
  Edit? NO// y  YES

==[ WRAP ]==[ REPLACE ]=====< SITE REMINDER DISCLAIMER >=====[ <PF1>H=Help ]====
The following disease screening, immunization and patient education
recommendations are offered as guidelines to assist in your practice.
These are only recommendations, not practice standards.  The
appropriate utilization of these for your individual patient must be
based on clinical judgment and the patient's current status.

<=====T=====T=====T=====T=====T=====T=====T=====T=====T>=====
Press RETURN to continue...
```

Edit Web Sites Example

```
Select Reminder Parameters Option: ews  Edit Web Sites

Choose from:
  http://vista.med.va.gov/reminders
  http://www.oqp.med.va.gov/cpg/cpg.htm

Select URL: ?
  Answer with WEB SITES URL
  Choose from:
  http://vista.med.va.gov/remind

  You may enter a new WEB SITES, if you wish
  Enter the URL for the web site.

Select URL: http://vista.med.va.gov/reminders
```


Edit Number of MH Tests Example

This option allows the site to select the Maximum number of MH questions to be used as a Reminder Dialog Finding Items. If the number of question in the selected MH test exceed the number in this parameter than the MH test cannot be used in the reminder dialog.

```
Select Reminder Managers Menu Option: PAR  Reminder Parameters
```

```
ESD    Edit Site Disclaimer
EWS    Edit Web Sites
MH      Edit Number of MH Questions
```

```
Select Reminder Parameters Option: MH  Edit Number of MH Questions
MAXIMUM NUMBER OF MH QUESTIONS: 100//
```

```
ESD    Edit Site Disclaimer
EWS    Edit Web Sites
MH      Edit Number of MH Questions
```

```
Select Reminder Parameters Option:
```

Reminder Patient List Management

New tools for creating and managing reminder patient lists were introduced with Clinical Reminders V2.0. The patient list functionality provides a way to identify patients with specific findings or combinations of findings, without having to search one-by-one through every patient registered on the system.

Patient List summary (from Patty Hoey, Puget Sound HCS)

Clinical Reminder patient lists and extracts represent a watershed advance in VA's clinical information armamentarium. Before their creation, front-line clinicians wishing to search for clinical data (for evidence-based medicine, process improvements, or clinical research) were limited to VA FileMan. While powerful, FileMan is too esoteric and resource-intensive for many clinicians. Alternatively, several VISNs have data warehouses and allow clinicians to write SQL scripts to search them; but again, the learning curve is steep and the data can be historical and, therefore, not useful for time-sensitive searches.

Because FileMan and SQL are difficult to learn, clinicians are often reliant on technical intermediaries and are subject to their availability. In contrast, the clinical reminder patient list functionality is relatively accessible and comprehensible (with minimal training) to front-line clinicians, allowing any clinician to become an informaticist, avoiding the risk of clinical questions being diluted or lost in translation. With the number of VA clinicians nationwide finally able to access the rich VA database, the potential for advances in patient safety, patient therapy, and processes that realize time and budget savings is boundless. Reminder indexes make the queries fast and consume relatively few computer resources. The searchable database is up-to-date, making patient lists useful for daily patient safety surveillance reporting. Lists can be auto-tasked to run monthly, quarterly, and annually and rolled up into a message for possible transmission to regional patient registries or county health departments.

The patient list functionality was originally created to support reminder extract reports. Reminder extract reports rely on the patient list tools to build patient lists that meet specific finding criteria. The numbers of patients on the patient lists created and used for extract reports are often referred to as patient denominators. The lists of patients are used to evaluate specific reminders to calculate compliance totals and finding totals.

Patient lists can also be created and used independently of extract reporting.

This patient list-building tool uses the Clinical Reminders Index global; consequently, it can build patient lists very quickly. The Clinical Reminders Index provides indexes that support finding all patients with a particular finding (also known as "across-patient look-ups"). The Index global also supports rapidly accessing finding data for a specific patient.

Example: At one site, the Index global was used to build a list of all patients with a diabetic diagnosis in the last five years at a medium-sized site in about two minutes. There were approximately 10,000 patients on the list.

Once a patient list has been created by the reminder patient list tools, it can be stored and used for a number of purposes: reminder extract reports, input to reminder reports, input to health summaries, and creation of mailing lists and personalized form letters.

The reminder patient lists are stored in the Reminder Patient List file (#810.5). The Reminder Patient List Menu (PXRMPATIENTLISTMENU) provides access to the patient list management and list rule management functionality.

Changes in Patch 18

- A bug that prevented location lists from working properly when used to build a patient list was corrected.
- Clin2 found a problem with a reminder rule incorrectly generating a patient list. There were patients on the list that should not have been. This was tracked to incorrect evaluation of a function finding for list building. The problem was corrected.
- Clin2 reported that if Race was one of the selected items in a delimited output Patient Demographic Report, no values were listed unless the number of occurrences was 2 or more. This was fixed so that values are listed for any number of occurrences.

Change in Patch 12

- **Reminder List Rules**

There are four possible views in list rule management: finding rule, patient list rule, reminder rule, and rule set. When switching between the views, the screen position was being carried over. For example, if you were in the rule set view and line 10 was at the top of the display and you switched into the reminder rule view, it would start at line 10. If there were less than 10 reminder rules, then the display would be blank. The code was changed to save the current position for each view, so that when a particular view is selected, the display will start at the last screen position of that view.

Changes in Patch 6

- Previously, when a patient list was created, the first step was to initialize a stub in the Patient List file; the stub contained only the NAME and the CLASS. If there was an error populating the list and the stub was left, then only someone holding the PXRMPMANAGER key could delete it. The stub initialization was changed so that it also inserts the CREATOR and sets the initial TYPE to be public. This makes it possible for the person who created the list to delete it if an error occurs that prevents normal completion of the list-building process.
- If a patient is on a patient list and for some reason the patient is later deleted from the Patient File, then running a Patient Demographic Report or a Health Summary would generate an error. Code was added to handle this problem.
- Dates shown in patient list creation documentation did not always match those displayed by the rule set test action. To correct this, a new routine was created, to be used for all patient list date calculation. Some of the basic date utility functions used throughout Clinical Reminders were optimized to get better performance.
- The setting of date ranges when building a patient list from a reminder definition was made consistent with the way it is done for terms.

- Code was added to catch problems with patient list build dates. The problems will be displayed in the list creation documentation.
- The list template PXRm PATIENT LIST PATIENTS had a bottom margin of 19 and consequently it could not display two of the actions. The bottom margin was changed to 18 so these actions would display.
- The display of Extract Definitions didn't show the fields INCLUDE DECEASED PATIENTS and INCLUDE TEST PATIENTS. If the value is NULL, then the display will show "NO."
- Changes were made so that if deceased and/or test patients are included on a patient list, they will be marked with a "D" or "T."
- When patient demographic report output was queued to p-message or a printer, the output never appeared. This was traced to incorrectly calling a Kernel queuing routine, which was corrected. Work on this also uncovered a problem in some VADPT routines that were not properly protecting variables, in particular % which is also used in the Kernel queuing routines. This may explain why some reminder report outputs have disappeared in the past. A Remedy ticket, #183747, was filed for VADPT.
- All sequences in patient lists and extracts were converted from three-character free-text to a number between 1 and 999. Existing entries will be converted by the post-init.
- The display of patient list creation documentation was improved. The header was expanded to two lines so the entire name of the patient list can be seen. The list template right margin was changed to 132 so the entire display can be seen. The number of patients was moved to a separate line.
- The extract summary display was changed to make it easier to read.
- The list template PXRm PATIENT LIST is obsolete so it was added to the build as "delete at site."
- The list template PXRm PATIENT LIST USER had incorrect caption information; it was corrected.
- Display of the operation was added to output for Rule Set Test.
- The following list rule changes were made:
 VA-*IHD QUERI 412 DIAGNOSIS
 Changed LIST RULE ENDING DATE from null to T

 VA-*IHD QUERI LIPID LOWERING MEDS
 Changed LIST RULE ENDING DATE from null to T

 VA-*IHD QUERI PTS WITH QUALIFY VISIT
 Changed LIST RULE ENDING DATE from T to BDT

List Rules

List rules are the basic building blocks for constructing patient lists. A list rule may be defined using a reminder term, the patient cohort from a reminder definition, or an existing reminder patient list. Before a list rule can be created, the corresponding reminder term, reminder definition, or reminder patient list must already exist. Each list rule is defined independently. Once a list rule is defined, it can be combined with other list rules to build Rule Sets.

There are four types of list rules.

<u>Type of List Rule</u>	<u>Abbreviation</u>
• Finding Rule	FR
• Reminder Rule	RR
• Patient List Rule	PL
• Rule Set	RS

TIP: These four types of list rules are all stored in the same file, REMINDER LIST RULE (#810.4). A naming convention can be useful for ease of identifying list rule entries by type of list rule. One suggested convention is to use the abbreviations above as a prefix or suffix in the list rule name identifying the type of list rule. We will use this suggested naming convention for the examples of list rules in the List Rule Management Section.

1. Finding rules are used to build lists of patients based on reminder terms. Reminder patient list tools will find patients with the finding(s) defined in the reminder term.

Most of the types of findings that can be defined in the reminder term have a Global Index for across-patient look-ups. However, the Global Index is not used for computed findings linked to a reminder term, unless the computed finding has hard-coded logic to access the Global Index. The typical computed finding assumes the patient is already selected and does not support across-patient look-up. However, with V2.0, a computed finding can be specifically created for list-building purposes by defining the Type field in the computed finding definition as “List.” The List type computed finding can be used as the first rule, or any subsequent rule in a rule set where the ADD PATIENT Operation is used. When a computed finding is used to SELECT or REMOVE patients from an existing patient list, a “single” or “multiple” type computed finding may be used.

2. Reminder rules are used to build lists of patients based on a reminder definition and its patient cohort logic. Before a reminder definition is used to build a patient list, the cohort logic is checked to make sure it meets certain criteria. If it doesn’t, a warning message will be issued. This is done to make sure that building the list is computationally feasible. The criteria for using a reminder definition are:

- The cohort logic cannot start with a logical not
- The cohort logic cannot contain a logical or not
- If AGE is used in the cohort logic, then a baseline age range must be defined
- If SEX is used in the cohort logic the reminder must be sex-specific
- SEX cannot be the first element in the cohort logic unless it is followed by AGE
- If a finding sets the frequency to 0Y, which effectively removes the patient from the cohort, it can’t have an associated age range
- The USAGE field must be specified as “L” for Patient List

3. Patient List rules are used to build a new reminder patient list based on the patients in an existing reminder patient list. An existing patient list can be used to create a new list, add patients to a list, remove

patients from a list if they are defined in the specified list, and remove patients from a list if they are not defined in the specified list.

4. List Rule Sets

A rule set combines list rules and logical operations into a series of steps which are processed to build a patient list. The steps are processed in a numerical order that is based on the value of the SEQUENCE field, which is a three-digit number such as 001. The first step initializes the list and subsequent steps can add patients (ADD PATIENT) to the list or remove (REMOVE or SELECT) them from it. Since the first step initializes the list, its operation must be ADD PATIENT. Subsequent steps may also use the ADD PATIENT operation to merge patients.

Logical operators (i.e., AND, AND NOT, OR), similar to those used in a reminder definition, are represented by the Rule Set Operations:

ADD PATIENT – this works like a Boolean OR; any patient for which the finding is true will be added to the list. This should always be the operation for the first sequence in a rule set. Patient lists may be merged using the ADD PATIENT operation.

REMOVE – this works like a Boolean AND NOT; any patient for which the finding is true will be removed from the list.

SELECT – this works like a Boolean AND; any patient for whom the finding is true will remain on the list and those for which the finding is false will be removed from the list.

One additional operation is available that is not related to Boolean logic:

INSERT FINDING – this is a special operation that lets you store patient data in the patient list. If the finding rule is based on the term VA-IHD STATION code or VA-PCMM INSTITUTION the patient's PCMM institution will be stored with the list and when the patient list is displayed there will be a column that lists the PCMM Institution. The patient's PCMM institution is determined by finding the patient's PCMM team and then the Institution for the team. When the finding rule is based on any other terms, the "CSUB" data for the term will be stored with the list and can be used in the Patient Demographic Report.

Rule Set Definition

- Each rule set has a unique Name. National rule sets will have a name prefixed with "VA-" or "VA-*", and cannot be edited.
- Each rule set has a Class. Rule sets defined by a local site must be defined with the LOCAL or VISN Class. Nationally distributed rules sets will have a NATIONAL class.
- Sequence: This three-digit number defines the order in which the list rules in the rule set will be evaluated.
- The ADD PATIENT operation is always used in the first sequential step, typically 001, to build the initial list of patients which can then be modified by subsequent rules. The ADD PATIENT operation can also be used on subsequent steps to add patients with a particular finding to an existing list of patients.
- Each sequential step uses the patient list from the prior step as the starting list to be added to or deleted from.

- It is good practice to initialize the list with the list rule that produce the smallest number of patients. For example if you need a list of patients with a certain diagnosis seen at specific locations you should initialize the list with the smaller of the two. If a finding list rule is defined with a reminder term that is defined with a computed finding, some special considerations need to be taken. If the computed finding is being used to select from or remove a patient from an existing list, than the typical computed finding can be used. If the computed finding will be used with the ADD PATIENT operation, then the computed finding must be defined with a “List” type.
- Each sequence may include Beginning Date/Time and Ending Date/Time.
- Beginning and Ending date/times are optional fields that can be defined in the List Rule which further restrict the criteria for building the patient list. Alternatively, the reminder term can contain the beginning and ending dates.
- The Patient List field is used for patient list rules. It defines the name of a patient list to be used as the patient source. If this field is defined, it overrides the Extract Patient List Name field.
- Extract Patient List Name field provides a mechanism to automatically generate patient list names for patient lists that are built on a recurring basis by extract runs. The name specified should contain “yyyy” for year and “Qnn” for quarter or “Mnn” for month. The string “yyyy” is automatically replaced by the four digit year and the “nn” is replaced by the number of the quarter or the number of the month. For example, one of the national IHD QUERI rule sets contains the extract patient list VA-*IHD QUERI yyyy Mnn PTS WITH QUALIFY AND ANCHOR VISIT; if an extract was run for November 2005 the resulting patient list would have the name VA-*IHD QUERI 2005 M11 PTS WITH QUALIFY AND ANCHOR VISIT.

In current national rule sets, the Beginning Date and Ending Date/time information is not defined at the Sequence level. It is defined in the Finding Rule, instead of the reminder term. The finding rule (FR) name reflects the dates or the period of time represented by the beginning and ending dates. The national extract patient list name is sent to Austin with related total counts. The patient list names reflect enough information for Austin users to understand which patients the counts are related to. The number of patients on the patient list typically represent one of the patient denominators used for extract reports.

Simple Rule Set definition with one List Rule

This rule set only has one step and it is used to build a list of all patients who had a diabetic diagnosis in the last five years.

Name:	RS-DIABETIC PATIENTS
Number:	20
Class:	LOCAL
Description:	
Rule Type:	RULE SET
Component Rules	

Sequence:	001
Seq Beginning Date:	BDT-5Y
Seq Ending Date:	BDT
Operation:	ADD PATIENT
List Rule:	FR-DIABETIC DIAGNOSIS
Description:	This is a taxonomy for diabetic diagnosis.
Rule Type:	FINDING RULE
Reminder Term:	DIABETIC DIAGNOSIS

Expanded Rule Set with two List Rules

An example of a more complex rule set builds a list of all diabetic patients who have not had a diabetic eye exam.

Display/Edit Rule	Jun 08, 2006@12:29:21	Page:	2 of 3
+			
Name:	RS-DIAB PTS W/O DIAB EYE EXAM		
Number:	27		
Class:	LOCAL		
Description:			
Rule Type:	RULE SET		
Component Rules			

Sequence:	001		
Operation:	ADD PATIENT		
List Rule:	FR-DIABETIC DIAGNOSIS		
Description:	This is a taxonomy for diabetic diagnosis.		
Rule Type:	FINDING RULE		
Reminder Term:	DIABETIC DIAGNOSIS		
Sequence:	002		
Operation:	REMOVE		
List Rule:	FR-DIABETIC EYE EXAM		
Description:			
Rule Type:	FINDING RULE		
Reminder Term:	DIABETIC EYE EXAM		

Step 001 initializes the list with all patients who have a diabetic diagnosis and step 002 removes any patients who have had a diabetic eye exam. The result is a list containing all diabetic patients who have **not** had a diabetic eye exam.

Note: The name of the Rule Set is summarized text representing the combination of the List Rules.

National Rule Set Example

Below is an example of one of the nationally released rule sets for the IHD QUERI extract. The rule set contains four finding rules.

Display/Edit Rule	Jun 01, 2006@10:21:39	Page: 1 of 4
Name: VA-*IHD QUERI PTS WITH QUALIFY VISIT		
Number: 7		
Class: NATIONAL		
Description: IHD patients with a qualifying visit.		
Rule Type: RULE SET		
Component Rules		

Sequence: 001		
Operation: ADD PATIENT		
List Rule: VA-*IHD QUERI DIAGNOSIS		
Description: Patients with IHD diagnosis in past 5 years.		
Rule Type: FINDING RULE		
Reminder Term: VA-IHD DIAGNOSIS		
LR Beginning Date: BDT-5Y		
Sequence: 002		
Operation: SELECT		
List Rule: VA-*IHD QUERI QUALIFYING VISIT		
Description: Patients with visit to EPRP locations in report period.		
Rule Type: FINDING RULE		
Reminder Term: VA-IHD QUERI QUALIFYING ENCOUNTER		
LR Beginning Date: BDT		
LR Ending Date: T		
Sequence: 003		
Operation: REMOVE		
List Rule: VA-*IHD QUERI AMI DIAGNOSIS WITHIN 60 DAYS		
Description: Patients with Inpatient AMI Diagnosis within 60 days.		
Rule Type: FINDING RULE		
Reminder Term: VA-IHD AMI DIAGNOSIS WITHIN 60 DAYS		
Sequence: 004		
Operation: INSERT FINDING		
List Rule: VA-*IHD QUERI ASSOCIATE PRIMARY CARE STATION		
Description: Associate primary facility.		
Rule Type: FINDING RULE		
Reminder Term: VA-IHD STATION CODE		

This rule set gets all patients with an IHD Diagnosis documented within 5 years prior to the report start date. This list of patients is modified in sequence 002 to remove all patients that have not had a visit documented for an EPRP clinic location during the reporting month, where T in the Beginning Date

represents the report start date and T in the Ending Date represents the report ending date. This list is further modified in sequence 003 to remove patients that have an AMI diagnosis documented within the past 60 days. The patient list after sequence 003 is further modified by associating each patient's primary care station and storing the station with each patient in the patient list. National list rules cannot be modified.

Steps to Create a Patient List

This is the sequence of steps to create a patient list:

1. Create list rules (FR, RR, or PLR)
2. Create rule sets
3. Create patient list

You must create list rules first. Once list rules are defined, they can be referenced in a rule set. Once the rule set is defined, the patient list tools can use the rule set to create a patient list.

NOTE: The Reminder Definition that is used in a Reminder Rule must have "L" (Reminder Patient List) in the Usage field or it will not be able to be used in the Reminder Rule

Prior to creating list rules and rule sets, it is a good idea to write down the criteria clearly enough so that anyone else will know exactly how the patient list should be built.

- What patient finding(s) should be used to build the list of patients?
- What finding should be used to create the first list of patients?
- Should this list be modified to remove patients with a particular finding?
- Should this list be modified to remove patients that do not have a particular finding?
- For each finding, what are the appropriate beginning and ending dates?
- What sequence will have the least impact on computer system resources?
- Who should be able to see the patient list?

The criteria for building a reminder patient list can be documented in the description field of the rule set. The criteria should take into consideration the most efficient sequence in which patient extracts should occur, to limit unnecessary impacts on system operations.

Patient List Menu

The Patient List Menu option on the PXRMANAGERS MENU provides the following options for creating and managing list rules and patient lists.

Syn.	Name	Option Name	Description
LRM	List Rule Management	PXRMANAGERS LIST RULE MANAGEMENT	This option allows creation of list rules, which build patient lists and test rule set criteria. Nationally released list rules are used by nationally released extract definitions for national extract runs. There are four types of list rules: Finding Rule, Reminder Rule, Patient List Rule, and Rule Set.
PLM	Patient List Management	PXRMANAGERS EXTRACT PATIENT LIST	This option manages reminder patient lists. Local patient lists may be created from list rules, copied to OE/RR teams, copied to other patient lists, or deleted. Local patient lists and national patient lists (from the extract process) are listed. Individual lists may be displayed or printed or used to run health summaries.

List Rule Management Option

The List Rule Management option presents a list of existing reminder rule file entries. The possible actions available for each type of entry are presented in the bottom portion of the screen.

List Rule Management screen example:

List Rule Management		Jun 01, 2006@08:44:21	Page:	1 of	1
Item	Rule Set Name				Class
1	VA-*IHD QUERI 412 PTS WITH QUALIFY AND ANCHOR VISIT				NATIONAL
2	VA-*IHD QUERI 412 PTS WITH QUALIFY AND ANCHOR VISIT ON LLA M				NATIONAL
3	VA-*IHD QUERI PTS WITH QUALIFY AND ANCHOR VISIT				NATIONAL
4	VA-*IHD QUERI PTS WITH QUALIFY AND ANCHOR VISIT ON LLA MEDS				NATIONAL
5	VA-*IHD QUERI PTS WITH QUALIFY VISIT				NATIONAL
6	VA-*MH QUERI QUALIFYING PC VISIT				NATIONAL
7	VA-*MH QUERY QUALIFYING MH VISIT				NATIONAL
+ Next Screen - Prev Screen ?? More Action					
CV	Change View	TEST	Test Rule Set		
CR	Create Rule	QU	Quit		
DR	Display/Edit Rule				
Select Item: Quit//					

The default view is Rule Set; this screen is used to create, edit, and test rule sets. The Test Rule Set action applies only to rule sets. It can be used to test a rule set before it is used to build a patient list. When you use this action you enter list build beginning and ending dates, and then the rule set processes list rules in the sequential order defined in the rule set. For each sequence/step in the rule set, it shows you the list rule, and if the list rule uses a term or a definition, it shows all the findings and the final dates used for each finding.

Test Rule Set example

Rule Set Test	Oct 17, 2005@10:05:06	Page: 1 of 2
Rule Set Test		
List Build Beginning Date: 10/17/2000 List Build Ending Date: 10/17/2005		
SEQUENCE 1 FR-DIABETIC DIAGNOSIS TERM DIABETIC DIAGNOSIS FINDING 1-TX.VA-DIABETES Beginning Date/Time: 06/01/2003 Ending Date/Time: 07/25/2004@23:59:59 FINDING 2-HF.OUTSIDE DIABETIC DIAGNOSIS Beginning Date/Time: 02/28/1999 Ending Date/Time: 08/29/2001@23:59:59		
SEQUENCE 2 VA-*IHD QUERI ASSOCIATE PRIMARY CARE STATION TERM VA-IHD STATION CODE		
SEQUENCE 3 FR-BMI TERM BMI FINDING 1-CF.VA-BMI Beginning Date/Time: 10/17/2000 Ending Date/Time: 10/17/2005@23:59:59		
SEQUENCE 004 FR-FINGERSTICK TERM FINGERSTICK, GLUCOSE FINDING 1-OI.FINGERSTICK, GLUCOSE (WARD) Beginning Date/Time: 10/17/2000 Ending Date/Time: 10/17/2005@23:59:59		
+ Next Screen - Prev Screen ?? More Action		
Select Action:Next Screen//		

Note that a local rule set can use national list rules, mixed with local list rules. Sequence 002 specifies a List Rule that identifies the facility that should receive the counts for the patient in a list.

The Change View (CV) action is used to select the screens for other types of list rules.

Select Item: Quit// CV Change View
Select one of the following:
F Finding Rule
P Patient List Rule
R Reminder Rule
S Rule Set
TYPE OF VIEW: F//F

If we select the finding rule view, then the display changes to show the newly selected view.

List Rule Management		Jun 01, 2006@08:55:48	Page:	1 of	1
Item	Finding Rule Name				Class
1	FR-BMI				LOCAL
2	FR-DIABETIC DIAGNOSIS				LOCAL
3	VA-*IHD QUERI 412 DIAGNOSIS				NATIONAL
4	VA-*IHD QUERI AMI DIAGNOSIS WITHIN 60 DAYS				NATIONAL
5	VA-*IHD QUERI ANCHOR VISIT				NATIONAL
6	VA-*IHD QUERI ASSOCIATE PRIMARY CARE STATION				NATIONAL
7	VA-*IHD QUERI DIAGNOSIS				NATIONAL
8	VA-*IHD QUERI LIPID LOWERING MEDS				NATIONAL
9	VA-*IHD QUERI QUALIFYING VISIT				NATIONAL
10	VA-*MH QUERI QUALIFY MH VISIT				NATIONAL
11	VA-*MH QUERI QUALIFY PC VISIT				NATIONAL
+ Next Screen - Prev Screen ?? More Action					
CV	Change View	TEST	Test Rule Set		
CR	Create Rule	QU	Quit		
DR	Display/Edit Rule				
Select Item: Quit//					

When you are in the desired view, the CR (Create Rule) action is used to create a new list rule and the DR (Display/Edit Rule) action is used to display/edit an existing rule. Note that typing the item number is the same as selecting the DR action.

Patient List Management Option

The Patient List Management option presents a list of available reminder patient lists. The patient lists displayed will include local and national patient lists that you have access to.

Note on national patient lists: The example below includes several national patient lists created by the monthly VA-IHD QUERI extract runs. Each month the VA-IHD QUERI extract was run, there were five different national patient lists created. Each patient list has a unique name with abbreviated text in the patient title to reflect the criteria used to create the list. Each of the five patient lists was used by extract reporting tools to evaluate reminders and create compliance and finding totals. See the section called National Reminder Extract Reporting for more information on Reminder Extract Report processing.

Patient List Management screen example

Reminder User Patient List				Jun 01, 2006@12:08:18				Page: 1 of 7	
Available Patient Lists.									
Item	Reminder Patient List Name						Created	Patients	
1	VA-*IHD QUERI 2000 M4 412 PTS WITH QUALIFY AN						4/27/04@11:55:43	0	
2	VA-*IHD QUERI 2000 M4 412 PTS WITH QUALIFY AN						4/27/04@11:55:43	0	
3	VA-*IHD QUERI 2000 M4 PTS WITH QUALIFY AND AN						4/27/04@11:55:43	0	
4	VA-*IHD QUERI 2000 M4 PTS WITH QUALIFY AND AN						4/27/04@11:55:43	0	
5	VA-*IHD QUERI 2000 M4 PTS WITH QUALIFY VISIT						4/27/04@11:55:43	0	
6	VA-*IHD QUERI 2001 M10 412 PTS WITH QUALIFY A						7/20/04@08:28:08	2	
7	VA-*IHD QUERI 2001 M10 412 PTS WITH QUALIFY A						7/20/04@08:28:09	0	
8	VA-*IHD QUERI 2001 M10 PTS WITH QUALIFY AND A						7/20/04@08:28:08	4	
9	VA-*IHD QUERI 2001 M10 PTS WITH QUALIFY AND A						7/20/04@08:28:08	0	
10	VA-*IHD QUERI 2001 M10 PTS WITH QUALIFY VISIT						7/20/04@08:28:07	5	
11	VA-*IHD QUERI 2001 M11 412 PTS WITH QUALIFY A						7/20/04@08:31:23	0	
12	VA-*IHD QUERI 2001 M11 412 PTS WITH QUALIFY A						7/20/04@08:31:23	0	
13	VA-*IHD QUERI 2001 M11 PTS WITH QUALIFY AND A						7/20/04@08:31:23	0	
14	VA-*IHD QUERI 2001 M11 PTS WITH QUALIFY AND A						7/20/04@08:31:23	0	
15	VA-*IHD QUERI 2001 M11 PTS WITH QUALIFY VISIT						7/20/04@08:31:23	0	
16	VA-*IHD QUERI 2001 M12 412 PTS WITH QUALIFY A						7/20/04@08:35:47	0	
+ Next Screen - Prev Screen ?? More Action									
CO	Copy Patient List			DE	Delete Patient List			CV	Change View
COE	Copy to OE/RR Team			DCD	Display Creation Doc			LRM	List Rule Management
CR	Create Patient List			DSP	Display Patient List			QU	Quit
Select Item:Next Screen//									

The actions on this screen are:

- CO (Copy Patient List) – copy an existing patient list to a new patient list
- COE (Copy to OE/RR Team) – copy a patient list to an OE/RR Team list
- CR (Create Patient List) – create a new patient list
- DE (Delete Patient List) – delete selected patient list(s)
- DCD (Display Creation Doc) – display the documentation on how a patient list was created
- DSP (Display Patient List) – display the contents of a patient list
- CV(Change View) – toggles the display order of the list between one sorted by list name and one sorted by list type
- LRM (List Rule Management) – this action takes you to the List Rule Management screen

When creating a local patient list, you are given the option to secure the list or to make it public for all to use. The type of security on the list is available by scrolling the list to the right.

When viewing the list of patient lists, there are two symbols: “<<<” and “>>>” on the action line. These are standard List Manager symbols that mean you can scroll the view to the left using the left arrow key

and to the right using the right arrow key. If the view is scrolled to the right, you can see the “Type” of list, public (PUB) or private (PVT), and your “Access” to the list full (F) or view (V).

If the list has a Type of PUB, then the list can be used by all users with access to the Patient List Management option. The level of Access may be restricted to View (Read Only), or Full access (Delete, and Update actions).

For any secure list, the creator of the patient list can add additional users to the list and assign one of two permissions to the user; view only or full access.

This is an example of a screen that has been scrolled to the right. Note that the sequence number and patient list name are still displayed on the left side of the column with the Type and Access columns.

Reminder User Patient List			Sep 27, 2005@09:36:05		Page: 1 of 8	
Available Patient Lists.						
+Item	Reminder Patient List Name			Type	Access	
5	AGP IHD EXTRACT WITH QUALIFY VISIT			PVT	F	
6	AGP IHD QUERI PTS WITH QUALIFY AND ANCHOR VIS			PVT	F	
7	AGP OE/RR TEAM 1			PUB	F	
8	AGP OERR TEAM LIST			PUB	F	
9	CRPATIENT			PUB	F	
10	CRPATIENT2			PUB	F	
11	DIAB PTS W/O DIAB EYE EXAM			PUB	F	
12	PJH EXTRACT 2004 M10 BP			PVT	V	
+ Next Screen - Prev Screen ?? More Action						
CO	Copy Patient List	DE	Delete Patient List	CV	Change View	
COE	Copy to OE/RR Team	DCD	Display Creation Doc	LRM	List Rule Management	
CR	Create Patient List	DSP	Display Patient List	QU	Quit	
Select Item:Next Screen//						

Patient List Creation Action

When you select the CR (Create Patient List) action, there are a number of prompts that must be answered before the patient list can be created. The following is a detailed explanation of each of these prompts.

Secure List?

If the answer to this prompt is “YES,” the list becomes a private list, which means that the only people who can view the list are the creator, anyone who the creator has given view access, and anyone who holds the PXRMANAGER KEY.

Purge Patient List after 5 years?

The response to this prompt sets the value of the Patient List file field AUTOMATICALLY PURGE. Whenever an automatic extract is run, if a patient list is more than 5 years old, AUTOMATICALLY PURGE is checked, and if its value is “YES,” the patient list is deleted.

Select LIST RULE SET

This is the rule set that is used to construct the list.

Enter Patient List BEGINNING DATE

This prompt is used to enter the values for the list build beginning date. The value entered can be: standard Clinical Reminders symbolic dates like T-5Y, an actual date like 09/30/2005; any of the standard FileMan date formats are acceptable.

Enter Patient List ENDING DATE

This prompt is used to enter the values for the list build beginning date. The value entered can be: standard Clinical Reminders symbolic dates like T-5Y, an actual date like 09/30/2005; any of the standard FileMan date formats are acceptable.

Include deceased patients on the list? N//The default is to not include deceased patients in patient lists. If the answer to this prompt is “YES,” then deceased patients will be included.

Include test patients on the list? N//The default is to not included test patients in patient lists. If the answer to this prompt is “YES,” then test patients will be included.

Dates in Patient Lists

When you build a patient list, you are prompted to enter a Beginning Date and an Ending Date; for the purposes of this discussion we will call these the Patient List Beginning Date (PL BDT) and the Patient List Ending Date (PL EDT). There can also be a beginning date and ending date specified for each sequence in a rule set, for a finding rule, and for each finding in a term or definition.

These dates specify the period of time in which to search for patient data so it is important to understand the relationships between the BDT and EDT values at each level. For discussion purposes, the Beginning Date at the sequence, finding rule, and reminder term level is referred to as BDT, and Ending Date is referred to as EDT. For each level, the BDT and EDT values represent the date range that will be used to search for the findings.

The following is the hierarchy of date ranges and options for values that can be defined in the BDT and EDT fields at each level.

1) Patient List BDT and EDT (required)

- Patient List BDT and EDT values are entered by the person creating the patient list.
- The Patient List BDT is represented symbolically by “BDT” and may be used in any of the list rule dates.
- The Patient List EDT is represented symbolically by “T” and may be used in any of the list rule dates. If “T” is used in the term or definition date fields it will take the value of the patient list EDT.

2) Sequence BDT and EDT for each rule in the rule set (optional)

- Dates defined at the sequence level override those defined at the patient list level.
- Actual dates are used directly.
- Symbolic values can be used for both the BDT and EDT. The symbol “BDT” is equal to the PL BDT so a date such as “BDT-6M” is PL BDT minus 6 months. The symbol “T” is equal to the PL EDT.
- When 0 is entered for BDT it means start at the beginning of patient data and 0 for EDT means ignore PL EDT and use the end of today for the end of the search range.

3) Finding Rule BDT and EDT (optional)

- Dates defined in the finding rule override those defined at the sequence.
- Actual dates are used directly.
- Symbolic values can be used for both BDT and EDT. The symbol “BDT” is equal to the PL BDT so a date such as “BDT-6M” PL BDT minus 6 months. The symbol “T” is equal to the PL EDT.
- When 0 is entered for BDT it means start at the beginning of patient data and 0 for EDT means ignore PL EDT and use the end of today for the end of the search range.

4) Reminder Term and Definition BDT and EDT (optional)

- Each finding can optionally be defined with BDT and EDT values and these will override those defined at the finding rule and/or sequence level.
- Actual dates are used directly.
- Symbolic dates can only use “T” which is equal to PL BDT.

Summary of date range overrides when searching for a particular finding

- The patient list BDT and EDT define the default date range to use to search for a particular finding unless the BDT or EDT is defined for the Rule Set Sequence, Finding Rule, or Reminder Term or Definition Finding.
- For each sequence in the rule set, you can override the Patient List’s BDT or EDT by adding a BDT and EDT for each sequence in the Rule Set.
- For each Finding rule defined in a rule set sequence, you can override the Rule Set Sequence BDT and EDT value and the Patient List’s BDT or EDT value by adding a BDT and EDT for the Finding Rule.
- For each Finding defined in a Reminder Term, you can override the BDT and EDT values at the Finding Rule, Rule Set Sequence and Patient List levels by adding a BDT and EDT for each finding in the Reminder Term or Definition.
- The following table summarizes the possible interactions between the various dates based on a Patient List Beginning Date of Sep 01, 2005 and Ending Date of Sep 30, 2005. This example is creating a patient list for the month of September 2005.

The table columns are as follows:

- Date Range # represents the various examples of how to define the Beginning Date Time (abbreviated in the Date Fields column as BDT) and Ending Date Time (abbreviated in the Date Fields column as EDT) in the four columns (List Build Date Range, Rule Set Sequence, Finding Rule, and Reminder Term Findings)
- The Date Fields column shows BDT or EDT to represent the beginning date/time or ending date/time for each level that beginning and ending dates can be defined (List Build, Rule Set Sequence, Finding Rule, and Reminder Term Finding).
- The List Build column represents the dates you are prompted for when building a patient list. If run from an extract, this column is the extract’s reporting period.
- The Rule Set Sequence column represents date values defined at the sequence level in a rule set.

- The Finding Rule column represents date field values defined in the list Finding Rule.
- The Reminder Term Finding column represents date field values defined at the finding level for a reminder term.
- The Search Date Range for Finding column shows the dates that will be used for each scenario when the list is actually built.

Times can optionally be specified, but if they are not, the beginning date/time defaults to the start of the day and the ending date/time defaults to the end of the day.

Whenever T is used in the Rule Set Sequence, Finding Rule, or Reminder Term Finding columns, T will always be equal to the List Build Ending Date/time.

Whenever BDT is used in the Rule Set Sequence, Finding Rule, or Reminder Term Finding columns, BDT will always be equal to the List Build Beginning Date/time.

Date Range #	Date Fields	List Build	Rule Set Sequence	Finding Rule	Reminder Term Finding	Search Date Range for Finding
1	BDT	Sep 01, 2005	Blank			Sep 01, 2005
	EDT	Sep 30, 2005	Blank			Sep 30, 2005
2	BDT	Sep 01, 2005	T-2Y			Sep 30, 2003
	EDT	Sep 30, 2005	Blank, same as T or EDT			Sep 30, 2005
3	BDT	Sep 01, 2005	BDT-2Y			Sep 01, 2003
	EDT	Sep 30, 2005	T-1Y			Sep 30, 2004
4	BDT	Sep 01, 2005	BDT-6M			Mar 01, 2005
	EDT	Sep 30, 2005	BDT			Sep 01, 2005
5	BDT	Sep 01, 2005	0 (zero)			No beginning date
	EDT	Sep 30, 2005	Mar 28, 2003			Mar 28, 2003
6	BDT	Sep 01, 2005	Apr 09, 2001			Apr 09, 2001
	EDT	Sep 30, 2005	Mar 28, 2003			Mar 28, 2003
7	BDT	Sep 01, 2005	Apr 09, 2001			Apr 09, 2001
	EDT	Sep 30, 2005	0 (zero)			End of day on date the list is built.
8	BDT	Sep 01, 2005		T-2Y		Sep 30, 2003
	EDT	Sep 30, 2005		T-1Y		Sep 30, 2004
9	BDT	Sep 01, 2005		BDT-2Y		Sep 01, 2003
	EDT	Sep 30, 2005		Blank or T		Sep 30, 2005
10	BDT	Sep 01, 2005		BDT-6M		Mar 01, 2005

Date Range #	Date Fields	List Build	Rule Set Sequence	Finding Rule	Reminder Term Finding	Search Date Range for Finding
	EDT	Sep 30, 2005		BDT		Sep 01, 2005
11	BDT	Sep 01, 2005		0 (zero)		No beginning date
	EDT	Sep 30, 2005		Mar 28, 2003		Mar 28, 2003
12	BDT	Sep 01, 2005		Apr 09, 2001		Apr 09, 2001
	EDT	Sep 30, 2005		Mar 28, 2003		Mar 28, 2003
13	BDT	Sep 01, 2005		Apr 09, 2001		Apr 09, 2001
	EDT	Sep 30, 2005		0 (zero)		End of day on date the list is built.
14	BDT	Sep 01, 2005			T-2Y	Sep 30, 2003
	EDT	Sep 30, 2005			T-1Y	Sep 30, 2004
15	BDT	Sep 01, 2005			0 (zero)	No beginning date
	EDT	Sep 30, 2005			BDT	Sep 30, 2005
16	BDT	Sep 01, 2005			Apr 09, 2001	Apr 09, 2001
	EDT	Sep 30, 2005			Mar 28, 2003	Mar 28, 2003
17	BDT	Sep 01, 2005	T-2Y	T-1Y		Sep 30, 2004
	EDT	Sep 30, 2005	T-1Y	T-6M		Mar 28, 2005
18	BDT	Sep 01, 2005	Jun 01, 2003	BDT		Sep 1, 2005 (BDT > EDT; no finding match will be found)
	EDT	Sep 30, 2005	Jul 25, 2004	T-6M		March 30, 2005
19	BDT	Sep 01, 2005	T-1Y	BDT-6M	T-1Y	Sep 30, 2004
	EDT	Sep 30, 2005	T	BDT	T-6M	Mar 31, 2005
20	BDT	Sep 01, 2005	Apr 09, 2001		T-2Y	Sep 30, 2003
	EDT	Sep 30, 2005	Feb 28, 2002		Blank or T	Sep 30, 2005
21	BDT	Sep 01, 2005	T-2Y		T-1Y	Sep 30, 2004
	EDT	Sep 30, 2005	0 (zero)		T-6M	Mar 31, 2005
22	BDT	Sep 01, 2005		Apr 09, 2001	Jun 01, 2003	Jun 01, 2003
	EDT	Sep 30, 2005		Feb 28, 2002	Jul 25, 2004	Jul 25, 2004

Date Range #1 shows that if no dates are defined at the sequence, finding rule, or reminder term finding level, the List Build dates are used to search for the finding defined in the reminder term.

Date Range #2-7 are examples of the Rule Set Sequence BDT and EDT overriding the List Build BDT and EDT. The Rule Set Sequence BDT and EDT dates are used to determine the date range to use for the finding in the reminder term.

Date Range #2 shows symbolic dates defined at the sequence level using “T”. T is the List Build ending date/time.

Date Range #3 shows symbolic dates defined at the sequence level using ”BDT” (the List Build Beginning Date/time) and “T” (the List Build Ending Date Time).

Date Range #4 shows symbolic dates defined at the sequence level using “BDT” (the List Build Beginning date/time) in both the Rule Set Sequence BDT and EDT fields.

Date range #5 shows 0 (zero) entered as the sequence level beginning date with an actual date specified as the sequence level ending date. The 0 will cause the search for the finding to not limit how far back in history a reminder finding will be looked for, which is similar to the way a finding works in a reminder definition when the finding has a blank beginning date. The actual date entered as the ending date will be used directly, overriding the List Build end date.

Date range #6 shows that when actual dates are defined at the sequence level, they take precedence and are used directly.

Date range #7 shows an actual date specified as the sequence level beginning date, and “0” (zero) entered as the sequence level ending date. The actual date entered as the beginning date will be used directly, overriding the List Build beginning date. The “0” in the Sequence ending date will cause the search for the Reminder Term finding to use the end of the day on the day the patient list is created, overriding the List Build ending date. The actual date specified will be the beginning date, and TODAY@11:59pm will be used as the ending date.

Date Range #8-13 are examples of the Finding Rule BDT and EDT overriding the List Build BDT and EDT. The Finding Rule BDT and EDT dates are used to search for the findings defined in the finding rule’s reminder term.

Date Range #8 shows symbolic dates defined at the finding rule level using “T” (the List Build ending date/time).

Date Range #9 shows symbolic dates defined at the finding rule level using ”BDT” (List Build Beginning date/time) and “T”(List Build Ending date/time. If there is no EDT value defined in the Finding Rule EDT, then the List Build Ending date/time is used.

Date Range #10 shows symbolic dates defined at the finding rule level using ”BDT” (the Patient List Beginning date/time).

Date range #11 shows “0” (zero) entered as the finding rule level beginning date and an actual date specified as the finding rule level ending date. The “0” will cause the search for the finding to not limit how far back in history the finding will be looked for, which is similar to the way a finding works in a reminder definition when the finding has a blank beginning date. The actual date entered as the ending date will be used directly, overriding the List Build ending date.

Date range #12 shows that when actual dates are defined in the BDT and EDT fields at the finding rule level, they override the List Build BDT and EDT.

Date range #13 shows an actual date specified as the finding rule level beginning date, and “0” (zero) entered as the finding rule level ending date. The actual date entered as the beginning date will be used directly, overriding the Patient List beginning date. The “0” (zero) in the finding rule ending date will use the end of the day on the day the patient list is created, overriding the List Build ending date. The date range used to search for the reminder term findings becomes the actual beginning date through the end of the day on the date the list is built(TODAY@11:59pm).

Date Range #14-17 are examples of the Reminder Term Finding BDT and EDT overriding the List Build BDT and EDT. The BDT and EDT dates are used to search for the findings defined in the finding rule’s reminder term.

Date Range #14 shows symbolic dates defined at the finding rule level using “T” (the List Build ending date/time).

Date range #15 shows “0” (zero) entered as the finding rule level beginning date and uses the symbolic BDT (List Build Beginning date/time) as the ending date. actual date specified as the finding rule level ending date. The “0” will cause the search for the finding to not limit how far back in history the finding will be looked for, which is similar to the way a finding works in a reminder definition when the finding has a blank beginning date. .

Date range #16 shows that when actual dates are defined in the BDT and EDT fields at the finding rule level, they override the List Build BDT and EDT.

Date range #17 and 18 are examples of what happens when Beginning and Ending date/time values are defined at the List Rule Sequence level and Finding Rule level. The Finding Rule level’s beginning and ending date values will override the List Rule Sequence level’s beginning and ending date values. BDT values are replaced with the List Build beginning date/time and T values are replaced with the Lit Build Ending date/time.

Date range #19 is an example of beginning and ending date values defined at every level, and where the Reminder Term Finding Beginning date/time and Ending date/time override all other levels.

Date range #20-22 is an example of the Reminder Term Findings beginning and ending date/times overriding miscellaneous other levels of beginning and ending date/time definitions.

Creating a Simple Patient List

As an example, let's build a list of all our diabetic patients.

1. Create a Reminder rule using a reminder term

The first thing we must do is find or create a reminder term that identifies diabetes patients. If you are not familiar with how to do this, see the Reminder Term Management section of this manual. The examples below assume the following Reminder Term defines the criteria to identify diabetes patients.

Diabetic Diagnosis term:

DIABETIC DIAGNOSIS	No. 606

Class:	LOCAL
Sponsor:	
Date Created:	
Review Date:	
Description:	
Edit History:	
Edit Date: JUN 3, 2005 09:54	Edit By:
Edit Comments:	
Findings:	
	Finding Item: VA-DIABETES (FI(1)=TX(28))
	Finding Type: REMINDER TAXONOMY

The Reminder Term called DIABETIC DIAGNOSIS is defined to use the Finding Item VA-DIABETES to identify whether a patient has a diabetic diagnosis.

Use the Reminder Term to build a List Rule

1a. Select the List Rule Management option.

List Rule Management		Jun 03, 2005@10:41:29		Page: 1 of 1	
Item	Rule Set Name				Class
1	VA-*IHD QUERI 412 PTS WITH QUALIFY AND ANCHOR VISIT				NATIONAL
2	VA-*IHD QUERI 412 PTS WITH QUALIFY AND ANCHOR VISIT ON LLA M				NATIONAL
3	VA-*IHD QUERI PTS WITH QUALIFY AND ANCHOR VISIT				NATIONAL
4	VA-*IHD QUERI PTS WITH QUALIFY AND ANCHOR VISIT ON LLA MEDS				NATIONAL
5	VA-*IHD QUERI PTS WITH QUALIFY VISIT				NATIONAL
6	VA-*MH QUERI QUALIFYING PC VISIT				NATIONAL
7	VA-*MH QUERY QUALIFYING MH VISIT				NATIONAL
+ Next Screen - Prev Screen ?? More Actions					>>>CV
Change View		TEST Test Rule Set			
CR Create Rule		QU Quit			
DR Display/Edit Rule					
Select Item: Quit// CV		Change View			

1b. Select CV to change the view

Select one of the following:

F	Finding Rule
P	Patient List Rule
R	Reminder Rule
S	Rule Set

TYPE OF VIEW: F// Finding Rule

1c. Press Enter to accept the default of Finding Rule

1d. Select CR to create the rule.

List Rule Management			Jun 03, 2005@10:41:33	Page:	1 of 1
Item	Finding Rule Name				Class
1	VA-*IHD QUERI 412 DIAGNOSIS				NATIONAL
2	VA-*IHD QUERI AMI DIAGNOSIS WITHIN 60 DAYS				NATIONAL
3	VA-*IHD QUERI ANCHOR VISIT				NATIONAL
4	VA-*IHD QUERI ASSOCIATE PRIMARY CARE STATION				NATIONAL
5	VA-*IHD QUERI DIAGNOSIS				NATIONAL
6	VA-*IHD QUERI LIPID LOWERING MEDS				NATIONAL
7	VA-*IHD QUERI QUALIFYING VISIT				NATIONAL
8	VA-*MH QUERI QUALIFY MH VISIT				NATIONAL
9	VA-*MH QUERI QUALIFY PC VISIT				NATIONAL
+ Next Screen - Prev Screen ?? More Actions >>>CV					
Change View		TEST (Test Rule Set)			
CR Create Rule		QU Quit			
DR Display/Edit Rule					
Select Item:Quit// CR Create Rule					

1e. Respond to the prompts as indicated below to define the local rule.

```

Select FINDING RULE to add: FR-DIABETIC DIAGNOSIS
Are you adding 'FR-DIABETIC DIAGNOSIS' as
a new REMINDER LIST RULE (the 19TH)? No// Y (Yes)

NAME: FR-DIABETIC DIAGNOSIS Replace
SHORT DESCRIPTION:
CLASS: L LOCAL
REMINDER TERM: DIABETIC DIAGNOSIS LOCAL
...OK? Yes// Y (Yes)

LIST RULE BEGINNING DATE/TIME:
LIST RULE ENDING DATE/TIME:
Input your edit comments.
Edit? NO//

```

1f. The new finding rule is now displayed in the list of Finding Rules.

List Rule Management Jun 03, 2005@10:42:11		Page:	1 of 1
Item	Finding Rule Name	Class	
1	FR-DIABETIC DIAGNOSIS	LOCAL	
2	VA-*IHD QUERI 412 DIAGNOSIS	NATIONAL	
3	VA-*IHD QUERI AMI DIAGNOSIS WITHIN 60 DAYS	NATIONAL	
4	VA-*IHD QUERI ANCHOR VISIT	NATIONAL	
5	VA-*IHD QUERI ASSOCIATE PRIMARY CARE STATION	NATIONAL	
6	VA-*IHD QUERI DIAGNOSIS	NATIONAL	
7	VA-*IHD QUERI LIPID LOWERING MEDS	NATIONAL	
8	VA-*IHD QUERI QUALIFYING VISIT	NATIONAL	
9	VA-*MH QUERI QUALIFY MH VISIT	NATIONAL	
10	VA-*MH QUERI QUALIFY PC VISIT	NATIONAL	
+ Next Screen - Prev Screen ?? More Actions		>>>CV	
Change View		TEST (Test Rule Set)	
CR Create Rule		QU Quit	
DR Display/Edit Rule			
Select Item: Quit//			

2. Create the rule set.

Now that the finding rule has been created, we need to create the rule set.

2a. Select the List Rule Management option.

2b. Select CV to change the view to Rule Set.

List Rule Management		Jun 03, 2005@11:08:58	Page:	1 of 1
Item	Finding Rule Name	Class		
1	FR-DIABETIC DIAGNOSIS	LOCAL		
2	VA-*IHD QUERI 412 DIAGNOSIS	NATIONAL		
3	VA-*IHD QUERI AMI DIAGNOSIS WITHIN 60 DAYS	NATIONAL		
4	VA-*IHD QUERI ANCHOR VISIT	NATIONAL		
5	VA-*IHD QUERI ASSOCIATE PRIMARY CARE STATION	NATIONAL		
6	VA-*IHD QUERI DIAGNOSIS	NATIONAL		
7	VA-*IHD QUERI LIPID LOWERING MEDS	NATIONAL		
8	VA-*IHD QUERI QUALIFYING VISIT	NATIONAL		
9	VA-*MH QUERI QUALIFY MH VISIT	NATIONAL		
+ Next Screen - Prev Screen ?? More Actions >>>CV				
Change View		TEST (Test Rule Set)		
CR	Create Rule	QU	Quit	
DR	Display/Edit RuleSelect Item: Quit// CV Change View			

2c. Select S for Rule Set.

Select one of the following:

F	Finding Rule
P	Patient List Rule
R	Reminder Rule
S	Rule Set

TYPE OF VIEW: F// S Rule Set

2d. Select CR for Create Rule.

List Rule Management		Jun 03, 2005@11:09:03	Page:	1 of	1
Item	Rule Set Name			Class	
1	VA-*IHD QUERI 412 PTS WITH QUALIFY AND ANCHOR VISIT			NATIONAL	
2	VA-*IHD QUERI 412 PTS WITH QUALIFY AND ANCHOR VISIT ON LLA M			NATIONAL	
3	VA-*IHD QUERI PTS WITH QUALIFY AND ANCHOR VISIT			NATIONAL	
4	VA-*IHD QUERI PTS WITH QUALIFY AND ANCHOR VISIT ON LLA MEDS			NATIONAL	
5	VA-*IHD QUERI PTS WITH QUALIFY VISIT			NATIONAL	
6	VA-*MH QUERI QUALIFYING PC VISIT			NATIONAL	
+ Next Screen - Prev Screen ?? More Actions >>>CV					
Change View		DR	Display/Edit Rule		
CR	Create Rule		QU	Quit	
Select Item:Quit// CR Create Rule					

2e. Respond to the prompts as indicated, to define the Rule Set.

```

Select RULE SET to add: RS-DIABETIC PATIENTS
Are you adding 'RS-DIABETIC PATIENTS' as
a new REMINDER LIST RULE (the 20TH)? No// Y (Yes)
NAME: RS-DIABETIC PATIENTS Replace
SHORT DESCRIPTION:
CLASS: L LOCAL
Select SEQUENCE: 1
Are you adding '1' as a new SEQUENCE (the 1ST for this REMINDER LIST RULE)? Y
(Yes)
SEQUENCE LIST RULE: FR-DIABETIC DIAGNOSIS FINDING RULE
LIST RULE: FR-DIABETIC DIAGNOSIS//
OPERATION: ADD ADD PATIENT
SEQUENCE BEGINNING DATE/TIME:
SEQUENCE ENDING DATE/TIME:
Select SEQUENCE:
Input your edit comments.
Edit? NO//

```

2f. The new rule set is now displayed in the Rule Set list view of the Finding Rules.

List Rule Management	Jun 03, 2005@11:09:52	Page:	1 of	1
Item	Rule Set Name	Class		
1	RS-DIABETIC PATIENTS	LOCAL		
2	VA-*IHD QUERI 412 PTS WITH QUALIFY AND ANCHOR VISIT	NATIONAL		
3	VA-*IHD QUERI 412 PTS WITH QUALIFY AND ANCHOR VISIT ON LLA M	NATIONAL		
4	VA-*IHD QUERI PTS WITH QUALIFY AND ANCHOR VISIT	NATIONAL		
5	VA-*IHD QUERI PTS WITH QUALIFY AND ANCHOR VISIT ON LLA MEDS	NATIONAL		
6	VA-*IHD QUERI PTS WITH QUALIFY VISIT	NATIONAL		
7	VA-*MH QUERI QUALIFYING PC VISIT	NATIONAL		
8	VA-*MH QUERY QUALIFYING MH VISIT	NATIONAL		
+ Next Screen - Prev Screen ?? More Actions		>>>	CV	
Change View	DR	Display/Edit Rule		
CR	Create Rule	QU	QuitSelect Item: Quit//	

3. Build the Patient List

Once the rule set has been created, the patient list can be built via the patient list management option.

3a. Select the Patient List Management option from the Patient List Menu.

Reminder User Patient List	Aug 10, 2005@15:02:21	Page:	1 of	1
Available Patient Lists.				
Item	Reminder Patient List Name	Created	Patients	
1	VA-*IHD QUERI 2001 M01 412 PTS WITH QUALIFY A	8/5/05@11:12:16	0	
2	VA-*IHD QUERI 2001 M01 412 PTS WITH QUALIFY A	8/5/05@11:12:16	0	
3	VA-*IHD QUERI 2001 M01 PTS WITH QUALIFY AND A	8/5/05@11:12:16	0	
4	VA-*IHD QUERI 2001 M01 PTS WITH QUALIFY AND A	8/5/05@11:12:16	0	
5	VA-*IHD QUERI 2001 M01 PTS WITH QUALIFY VISIT	8/5/05@11:12:16	0	
6	VA-*IHD QUERI 2005 M1 412 PTS WITH QUALIFY AN	8/5/05@11:19:42	0	
7	VA-*IHD QUERI 2005 M1 412 PTS WITH QUALIFY AN	8/5/05@11:19:43	0	
8	VA-*IHD QUERI 2005 M1 PTS WITH QUALIFY AND AN	8/5/05@11:19:42	0	
9	VA-*IHD QUERI 2005 M1 PTS WITH QUALIFY AND AN	8/5/05@11:19:42	0	
10	VA-*IHD QUERI 2005 M1 PTS WITH QUALIFY VISIT	8/5/05@11:19:42	0	
+ Next Screen - Prev Screen ?? More Actions		>>>	CO	
Copy Patient List	DE	Delete Patient List	CV	Change View
COE	Copy to OE/RR Team	DCD	Display Creation Doc	LRM List Rule Management
CR	Create Patient List	DSP	Display Patient List	QU Quit
Select Item: Quit// CR Create Patient List				

3b. Select the CR action to Create the Patient List.

```
Select PATIENT LIST name: DIABETIC PATIENTS 5Y
Are you adding 'DIABETIC PATIENTS 5Y' as
a new REMINDER PATIENT LIST? No// Y (Yes)

Secure list?: N// O

Purge Patient List after 5 years?: N// O

Select LIST RULE SET: RS-DIABETIC PATIENTS          RULE SET

Enter Patient List BEGINNING DATE: T-5Y (AUG 10, 2000)
Enter Patient List ENDING DATE: T (AUG 10, 2005)

Include deceased patients on the list? N// O

Include test patients on the list? N// O
Queue the CREATE PATIENT LIST for DIABETIC PATIENTS 5Y:
Enter the date and time you want the job to start.
It must be on or after 08/10/2005@15:02:49 N
Task number 236638 queued.
```

3c. Respond to the prompts as shown to queue a task job that will create the patient list and add the patient list to the REMINDER PATIENT LIST file. Note that the Patient List Name reflects the date range of 5Y. The Name of the Patient List needs to be as specific as possible to understand what patients are in the list. Note: If the desire is to create a new patient list each month with diabetic patients seen during each month, then Beginning Date and Ending Date would reflect the month period, and the name would include the month and year.

Reminder User Patient List				Aug 10, 2005@15:02:53				Page: 1 of 1	
Available Patient Lists.									
Item	Reminder Patient List Name				Created			Patients	
1	DIABETIC PATIENTS 5Y				8/10/05@15:02:52			2	
2	VA-*IHD QUERI 2001 M01 412 PTS WITH QUALIFY A				8/5/05@11:12:16			0	
3	VA-*IHD QUERI 2001 M01 412 PTS WITH QUALIFY A				8/5/05@11:12:16			0	
4	VA-*IHD QUERI 2001 M01 PTS WITH QUALIFY AND A				8/5/05@11:12:16			0	
5	VA-*IHD QUERI 2001 M01 PTS WITH QUALIFY AND A				8/5/05@11:12:16			0	
6	VA-*IHD QUERI 2001 M01 PTS WITH QUALIFY VISIT				8/5/05@11:12:16			0	
7	VA-*IHD QUERI 2005 M1 412 PTS WITH QUALIFY AN				8/5/05@11:19:42			0	
8	VA-*IHD QUERI 2005 M1 412 PTS WITH QUALIFY AN				8/5/05@11:19:43			0	
9	VA-*IHD QUERI 2005 M1 PTS WITH QUALIFY AND AN				8/5/05@11:19:42			0	
10	VA-*IHD QUERI 2005 M1 PTS WITH QUALIFY AND AN				8/5/05@11:19:42			0	
11	VA-*IHD QUERI 2005 M1 PTS WITH QUALIFY VISIT				8/5/05@11:19:42			0	
+ Next Screen				- Prev Screen		?? More Actions		>>>CO	
Copy Patient List		DE		Delete Patient List		CV		Change View	
COE Copy to OE/RR Team		DCD		Display Creation Doc		LRM		List Rule Management	
CR Create Patient List		DSP		Display Patient List		QU		QuitSelect Item: Quit//	

3d. The new Patient List entry is added to the list of patient lists. When the tasked job has completed successfully, the new Patient List created by the job is displayed in the Reminder User Patient List with the date/time created and the number of patients included in the list.

Create Patient List - Expanded example

Reminder User Patient List Aug 11, 2005@14:22:31			
Page: 1 of 8			
Available Patient Lists.			
Item	Reminder Patient List Name	Created	Patients
1	AGP 1	7/10/05@19:55:43	24
2	AGP CREATED REMINDER REP	7/26/05@13:48:23	25
3	AGP EXTRACT TEST		0
4	AGP IHD EXTRACT WITH QUALIFY VISIT	7/1/05@11:03	0
5	AGP IHD QUERI PTS WITH QUALIFY AND ANCHOR VIS	7/1/05@11:03:02	0
6	AGP OE/RR TEAM 1	7/10/05@20:51:42	16
7	AGP OERR TEAM LIST	7/10/05@20:47:17	16
8	AGP REMINDER TEST	7/25/05@11:17:24	25
9	AGP REPORT TEST OF PURGE	7/19/05@16:06:35	3
10	AGP T4	7/10/05@20:05:02	24
11	AGP TEST REMINDER 1	7/25/05@11:48:36	23
12	AGP TEST REMINDERS 2	7/25/05@12:01:46	47
13	FINGERSTICK	6/28/05@11:15:35	13
14	FINGERSTICK (DEF)	7/6/05@09:51:42	15
15	PJH EXTRACT 2004 M10 BP	11/2/04@15:58:14	1
16	PKR PUB	8/9/05@11:33	22
+ Next Screen - Prev Screen ?? More Actions >>>CO Copy			
Patient List	DE Delete Patient List	CV Change View	
COE	Copy to OE/RR Team	DCD Display Creation Doc LRM	List Rule Management
CR	Create Patient List	DSP Display Patient List QU	Quit
Select Item: Next Screen// CR Create Patient List			

```

Select PATIENT LIST name: DIAB PTS W/O DIAB EYE EXAM
Are you adding 'DIAB PTS W/O DIAB EYE EXAM' as
a new REMINDER PATIENT LIST? No// Y   (Yes)

Secure list?: N// O

Purge Patient List after 5 years?: N// O

Select LIST RULE SET: RS-DIAB
1   RS-DIAB PTS W/O DIAB EYE EXAM      RULE SET
2   RS-DIABETIC PATIENTS              RULE SET
CHOOSE 1-2: 1   RS-DIAB PTS W/O DIAB EYE EXAM      RULE SET

Enter Patient List BEGINNING DATE: T-5Y   (AUG 11, 2000)
Enter Patient List ENDING DATE: T   (AUG 11, 2005)

Include deceased patients on the list? N// O

Include test patients on the list? N// O
Queue the   CREATE PATIENT LIST for DIAB PTS W/O DIAB EYE EXAM:
Enter the date and time you want the job to start.
It must be on or after 08/11/2005@14:23:04 N
Task number 237005 queued.

```

Reminder User Patient List		Aug 11, 2005@14:23:08	Page:	1 of	8
Available Patient Lists.		Item	Reminder Patient List Name	Created	
Patients	1	AGP 1			7/10/05@19:55:43
24					
2	AGP CREATED REMINDER REP		7/26/05@13:48:23		25
3	AGP EXTRACT TEST				0
4	AGP IHD EXTRACT WITH QUALIFY VISIT		7/1/05@11:03		0
5	AGP IHD QUERI PTS WITH QUALIFY AND ANCHOR VIS		7/1/05@11:03:02		0
6	AGP OE/RR TEAM 1		7/10/05@20:51:42		16
7	AGP OERR TEAM LIST		7/10/05@20:47:17		16
8	AGP REMINDER TEST		7/25/05@11:17:24		25
9	AGP REPORT TEST OF PURGE		7/19/05@16:06:35		3
10	AGP T4		7/10/05@20:05:02		24
11	AGP TEST REMINDER 1		7/25/05@11:48:36		23
12	AGP TEST REMINDERS 2		7/25/05@12:01:46		47
13	DIAB PTS W/O DIAB EYE EXAM		8/11/05@14:23:08		19
14	FINGERSTICK		6/28/05@11:15:35		13
15	FINGERSTICK (DEF)		7/6/05@09:51:42		15
+ Next Screen - Prev Screen ?? More Actions >>>					CO Copy
Patient List	DE	Delete Patient List	CV	Change View	
COE	Copy to OE/RR Team	DCD	Display Creation Doc LRM	List Rule Management	
CR	Create Patient List	DSP	Display Patient List	QU	Quit

List number 13 is our newly created list and we see that it has 19 patients.

Working with Patient Lists

You can work with a patient list by selecting the DSP (Display Patient List) action. Here is an example:

Reminder User Patient List		Sep 29, 2005@10:25:44	Page: 1 of 8	
Available Patient Lists.		Item	Reminder Patient List Name	Created
<u>Patients</u>				
6	AGP IHD QUERI PTS WITH QUALIFY AND ANCHOR VIS	7/1/05@11:03:02	0	
7	AGP OE/RR TEAM 1	7/10/05@20:51:42	6	
8	AGP OERR TEAM LIST	7/10/05@20:47:17	16	
9	AGP REMINDER TEST	7/25/05@11:17:24	25	
10	AGP REPORT TEST OF PURGE	7/19/05@16:06:35	3	
11	AGP T4	7/10/05@20:05:02	24	
12	AGP TEST REMINDER 1	7/25/05@11:48:36	23	
13	AGP TEST REMINDERS 2	7/25/05@12:01:46	47	
14	CRPATIENT	8/11/05@14:56:11	14	
15	CRPATIENT2	8/11/05@15:16:44	14	
16	DIAB PTS W/O DIAB EYE EXAM	8/11/05@14:23:08	19	
17	FINGERSTICK	6/28/05@11:15:35	13	
18	FINGERSTICK (DEF)	7/6/05@09:51:42	15	
19	PJH EXTRACT 2004 M10 BP	11/2/04@15:58:14	1	
20	PKR PUB	9/29/05@10:19:51	2	
21	PKR PVT	6/17/05@12:13:15	26	
+ Next Screen - Prev Screen ?? More Actions >>>				CO Copy
Patient List	DE	Delete Patient List	CV	Change View
COE	Copy to OE/RR Team	DCD	Display Creation Doc	LRM List Rule Management
CR	Create Patient List	DSP	Display Patient List	QU QuitSelect Item: Next
Screen//	DSP	Display Patient List		
Select (s):	(6-21): 20			

Enter DSP, and select the item number next to the patient list you want to view.

Reminder Patient List	Sep 29, 2005@15:08:17	Page: 1 of 1
List Name: PKR PUB (22 patients)		
Created: 09/29/2005@10:19:51	Creator: CRPROVIDER,THREE	
Class: Local	Type: PUBLIC	
Source: List Rule - RS-DIABETIC PATIENTS	Patient Name	DFN
PCMM Institution	1 AWHPATIENT,THREE	40 NONE
2 CRPATIENT,EIGHT	39	NONE
3 CRPATIENT,FIVE	24	SALT LAKE CITY
4 CRPATIENT,FOUR	10	NONE
5 CRPATIENT,ONE	91290	NONE
6 CRPATIENT,SEVEN	54	NONE
7 CRPATIENT,TEN	912345678906	NONE
+ Next Screen - Prev Screen ?? More Actions >>>CV		
Change View	DEM	Demographic Report QU Quit
HSA	Health Summary All	ED Edit Patient List
HSI	Health Summary Ind	USR (View Users)Select Item: Quit//

Notice that this patient list includes a column with PCMM Institution. This information will be included when the rule set includes a list rule with the INSERT FINDING operation and a finding rule based on the reminder term VA-PCMM INSTITUTION or VA-IHD STATION CODE. This list rule should be added as the last step in the sequence of list rules in a rule set to ensure all patients in the final list are associated with a facility.

List Manager actions on the Reminder Patient List screen

- CV (Change View) – this lets you toggle between a view of the patient list sorted by PCMM Institution and patient name or sorted only by patient name
- HSA (Health Summary All) – this lets you run a selected health summary for all the patients on the list
- HSI – (Health Summary Ind) this lets you run a selected health summary for selected patients from a patient list.
- DEM (Demographic Report) – this lets you run a patient demographic report
- ED (Edit Patient List) – if you are the creator of the list you can use this action to edit the name and type of list; if you hold the PXRMANAGER key you can also edit the creator of the list.
- USR (View Users) – this action is applicable only to private lists. If you are the creator of the list or hold the PXRMANAGER key you can use this action to give other users either view only or full access to the patient list. You can also remove a user's access to the list.

Demographic Report

The Demographic Report can be used for a number of purposes, one of which is to facilitate contacting patients to make sure they receive the proper care. You can get a list of the patients and their phone numbers and addresses. The Demographic Report can produce output in a delimited format so that the information can be imported into another application to create personalized letters. If the output is imported into a spreadsheet, further analysis and sorting can be done.

Example

```
Demographic Report

Reminder Patient List      Feb 22, 2006@18:14:03      Page:      1 of      2
List Name: Diabetic Eye Exam (7 patients)
Created: 08/11/2005@15:16:44      Creator: CRPROVIDER,ONE
Class: Local      Type: PUB
Source: Reminder Due Report
  Patient Name      DFN
  1  AWHPATIENT,THREE      40
  2  CRPATIENT,EIGHT      39
  3  CRPATIENT,FIVE      24
  4  CRPATIENT,FOUR      10
  5  CRPATIENT,ONE      91290
  6  CRPATIENT,SEVEN      54
  7  CRPATIENT,TEN      912345678906

+      + Next Screen      - Prev Screen      ?? More Actions      >>>
CV      Change View      DEM      Demographic Report      QU      Quit
HSA      Health Summary All      ED      Edit Patient List
HSI      Health Summary Ind      USR      (View Users)
Select Item: Next Screen// DEM      Demographic Report

Select the items to include on the report.

Select from the following address items:
  1 - CURRENT ADDRESS
  2 - PHONE NUMBER
Enter your selection(s):      (1-2): 1

Select from the following future appointment items:
  1 - APPOINTMENT DATE
  2 - CLINIC
Enter your selection(s):      (1-2): 1-2

Maximum number of appointments to display:      (1-25): 1// 2

Select from the following demographic items:
  1 - SSN
  2 - DATE OF BIRTH
  3 - AGE
  4 - SEX
  5 - DATE OF DEATH
  6 - REMARKS
  7 - HISTORIC RACE
  8 - RELIGION
  9 - MARITAL STATUS
  10 - ETHNICITY
  11 - RACE
Enter your selection(s):      (1-11): 1-4
```



```
Print full SSN: N// O

Include the patient's preferred facility? N// O

Select from the following eligibility items:
 1 - PRIMARY ELGIBILITY CODE
 2 - PERIOD OF SERVICE
 3 - % SERVICE CONNECTED
 4 - VETERAN
 5 - TYPE
 6 - ELIGIBILITY STATUS
 7 - CURRENT MEANS TEST
Enter your selection(s): (1-7):

Select from the following inpatient items:
 1 - WARD LOCATION
 2 - ROOM-BED
 3 - ADMISSION DATE/TIME
 4 - ATTENDING PHYSICIAN
Enter your selection(s): (1-5): 4

Include due status information for the following reminder(s):
 1 - Breast Exam
 2 - Problem Drinking Screen
 3 - Weight and Nutrition Screen
 4 - Cholesterol Screen (Male)
 5 - Hepatitis C Risk Assessment
 6 - Pnevumovax
 7 - Alcohol Abuse Education
 8 - Exercise Education
 9 - Advanced Directives Education
10 - Weight
11 - IHD Lipid Profile
12 - MST Screening
13 - Smoking Cessation Education
14 - Diabetic Eye Exam
Enter your selection(s): (1-14): 30

Delimited Report:? Y// ES

DEVICE: HOME// ;;999 HOME
```

```

Patient Demographic Report
Patient List: CRPROVIDER,ONE
Created on Aug 11, 2005@15:16:44
PATIENT^STREET ADDRESS #1^STREET ADDRESS #2^STREET ADDRESS #3^CITY^STATE^ZIP^APP
OINTMENT DATE1^CLINIC1^APPOINTMENT DATE2^CLINIC2^SSN^DOB^AGE^SEX^ATTENDING^REMIN
DER30^STATUS30^DUE DATE30^LAST DONE30^\\
AWHPATIENT,THREE^123 SESAME ST^^^SALT LAKE CITY^UTAH^84101^^^^^0003^JAN 1,
1951^55^FEMALE^WHPROVIDER,THREE^Diabetic Eye Exam^DUE NOW^DUE NOW^unknown^\\
CRPATIENT,EIGHT^^^^^^^^^7892^MAY 19,1952^53^FEMALE^^Diabetic Eye Exam^DUE NOW^DUE NO
W^unknown^\\
CRPATIENT,FIVE^^^^^^^^^3242^MAR 3,1914^91^MALE^^Diabetic Eye Exam^DUE NOW^DUE N
OW^unknown^\\
CRPATIENT,FOUR^^^^^^^^^3242^OCT 23,1927^78^^Diabetic Eye Exam^DUE NOW^DUE NOW^
unknown^\\
CRPATIENT,ONE^^^^^^^^^8828^APR 19,1967^38^MALE^^Diabetic Eye Exam^DUE NOW^DU
E NOW^unknown^\\
CRPATIENT,SEVEN^RON^^^RUBY RIDGE^IDAHO^85098^^^^^1239^MAY 5,1952^53^MALE^^Diabetic
Eye Exam^DUE NOW^3010501^3000500^\\
CRPATIENT,TWO^^^^^^^^^3284^APR 4,1914^91^MALE^^Diabetic Eye Exam^DUE NOW^DUE NOW^
unknown^\\
Enter RETURN to continue or '^' to exit:

```

If the rule set used to create the patient list contains a finding rule and the operation is INSERT then the “CSUB” data for the term’s finding will be available for use with the Demographic Report. This could be used to include lab test results in letters that are sent to patients.

Demographic Report /Mail Merge Patient Data

This option can be used to generate letters to send to all patients on a list. Follow the steps below to create personalized letters from the Demographic Report.

Summary of steps:

1. Run a demographic report against a patient list.
2. Run the report in a delimited output
3. Capture the output in Notepad
4. Clean up the report output
5. Import the Notepad document into MS Excel
6. Import the Excel document into MS Word

Patient Lists Created by Reminders Due Reports

Creation of Patient Lists is not limited to the Patient List Management option.

The Reminders Due Report option on the Reminder Reporting menu also provides the ability to save patients evaluated by the Reminders Due Report into a new Patient List that is stored in the Reminder Patient List file.

When you run a Reminders Due Report, you are given the option to save the list of patients to a patient list. Since this requires reminder evaluations for every selected patient, this method of generating a patient list will not be as efficient as generating a patient list from a rule set. Therefore, whenever possible, it is preferable to generate a patient list from a rule set.

Before V.2.0, when you ran a Reminders Due Report, you entered a set of criteria, such as visits to specific locations, which was used to generate a list of patients for which the list of reminders was evaluated. Now an existing patient list can be used directly in a Reminders Due Report, eliminating the requirement to generate the initial list of patients. This lets you target a Reminders Due Report to a very specific cohort of patients. For example, you could create a list of diabetic patients and then run a Reminders Due Report for this list of patients.

Patient Lists Created by Reminder Extract Reports

National patient lists created by the Reminder Extract Reporting functionality are named with a prefix of “VA-” or “VA-*”. These patient lists are created when a national Reminder Extract Parameter definition is used to schedule and run a job. Each national extract parameter is set up so that IRM staff can schedule the job once, and then monthly extract reports will automatically be scheduled for the next month when the current month's job is completed. This automated feature is only possible if the IRM staff initiates a job for the first month to be reported.

Alternatively, a Clinical Application Coordinator (CAC) can start the job using options available in the Reminder Extract Management (PXRMRM EXTRACT MANAGEMENT) option.

Advantages of Reminder Patient Lists vs Reminder Due Report Lists

The national reminder patient lists don't need any setup and are created automatically from the national rule sets defined in the extract parameter criteria. When a national patient list is created, it remains on the computer system for five years, and is deleted automatically after 5 years. The national patient list is available to run with health summaries, or for extract validation.

Local patient lists can be generated using the Reminder Due option, where the report criteria specifies date ranges and locations or providers. However, the only output available is the due report (albeit condensed, if required).

The patient list management option provides health summary reporting from existing patient lists.

The patient list management option allows patients to be identified by finding. If you want a list of diabetic patients who smoke, then the patients are extracted directly from the Reminder Index Global rather than by parsing the visit file. The downside is that list rules and rule sets identifying findings to be collected must be created before a new list can be created. The biggest plus is that since the patient list doesn't involve reminder evaluation, it is quick.

Once a reminder patient list is created, the patient list can be copied to an OE/RR Patient List. To sum up, the patient list management option provides a way to run health summaries on patient lists, copy them to team lists, and quickly build lists for patients with specific finding combinations.

Reminder Extract Tools

Clinical Reminders V.2.0 (CR V.2.0) includes extract tools that enable sites to create extract summary reports based on an extract definition. An extract definition defines extract criteria similar to performance measure criteria. The extract definition specifies what patient lists should be created, which reminders should be run against each patient list, and what kind of totals should be accumulated. An extract run uses the extract definition to create extract totals and stores these results in the Reminder Extract Summary file.

The extract tools were developed to meet generic extract report and transmission needs. The tools provide options to:

- Manage extract criteria
- Manage extract runs (manual and automated)
- Manage transmissions to AAC
- View extract reporting results
- View the list of patients making up the patient denominator

The functionality supports corporate level management analysis by providing reports that:

- Summarize patient reminder compliance totals (not applicable, applicable, due, not due), similar to Reminder Due summary reports
- Summarize finding total counts that reflect the most recent findings resulting from reminder evaluation
- Summarize finding total counts that reflect site activities during the reporting month.

Reminder Extract Menu

The Reminder Extract Menu was new with Clinical Reminders V2.0. This menu uses list manager functionality to help Reminder managers or clinical application coordinators (CACs) track and manage the national, VISN, and local level extract transmissions.

Syn	Option	Option Name	Description
MA	Reminder Extract Management	PXRM EXTRACT MANAGEMENT	This option uses list manager to view an extract definition, examine and schedule an extract run or transmission run, view extract summary results and view extract patient lists.
D	Extract Definition Management	PXRM EXTRACT DEFINITION	This option allows creation/editing of extract definitions for use in extract processing. Each extract definition identifies what list rules should be used to create patient lists, what reminders should be run against each patient list, and what counting rules should be used to count true findings found during reminder evaluation.
EC	Extract Counting Rule Management	PXRM EXTRACT COUNTING RULES	This option allows creation/editing of extract counting rules used in the extract process. The counting rules define how to count the findings defined in an extract counting group (most recent for each finding, most recent finding in the group, utilization counts for the reporting period).
EG	Extract Counting	PXRM EXTRACT	This option allows creation/editing of extract

	Group Management	GROUPS	counting groups. Each group defines reminder terms. Counting groups are used when an extract definition is defined to accumulate COMPLIANCE and FINDING TOTALS (TYPE OF TOTALS). The counting groups are used in a counting rule during the extract process to count findings within a group. The reminder term, related counting group, and finding total counts are stored in the Extract Reminder Summary file.
LR	List Rule Management	PXRM LIST RULE MANAGEMENT	This option allows creation/editing of list rules which are used to build patient lists.

LR List Rule Management is discussed in detail in the [Reminder Patient List](#)/List Rule section.

Clinical Reminder Extracts Guide

By Alan Montgomery and Philip VanCamp, Clinical Product Support

We have written this guide in an attempt to be exactly what it says it is – a guide. The things we have learned about extracts have come from countless hours of trying and failing over and over again until we somewhat succeeded. Our intent from this document is to help you learn the mechanics of extracts and how all the pieces fit together to give you the desired results. Our plan is to make this very basic so that even the reminder novice can understand, so if it seems too simple, please humor us in our efforts to explain. Be forewarned that this is not a fast process and will require you to *think*, to be able to understand what is actually taking place. As you know, if you have worked with us, we will leave it to you to figure it out because just copying what we have done doesn't help you to learn how it works. You may not be interested in how it works, but that's too bad ☺! As always, we will help answer any questions by pointing you in the right direction, but still leaving it to your imagination to figure it out. We can also pass along any enhancement ideas to development staff. As we progress and questions arise, we would like to start a [Frequently Asked Questions \(FAQ\)](#) to go along with this guide to help others who will follow (those poor souls) after we are long gone.

I suppose the best way to start is to create an outline as our guide, from alpha to omega. Here are some key points to making this guide more helpful. Any text that you type will be in **bold text**.

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What is an extract?

By definition, the word extract simply means to get, pull, or draw out, usually with special effort, skill, or force. Hopefully we will not need the “force” part or maybe we should “use the force” to help us☺. So, this means that we want to draw out results from VistA by use of our extract definition. Why should we use an extract? One reason is that we are able to get more precise data due to the flexibility that we have with dates inside the extract definition. This allows you to be able to report almost exact results to your management on performance measure data or whatever type of data is expected of you. Reminder reports definitely have their place for reporting data, but the accuracy you can obtain from extracts is more exact. Another reason is that these can be automatically tasked to run each month, quarter, or year leaving you only to worry about slicing and dicing the data. We will discuss how to do this later on.

Key Components

This section of the guide will give us information on all the components that make up an extract definition and how they work together. We will give examples of each one as we complete the components.

Finding Rules

Finding Rules – this type of list rule uses a reminder term to achieve the desired result. Let’s look at an example from VistA. You have to use a little forethought when creating a finding rule. It is always best to already have the term that you will use created as you will not be able to create the finding rule without the term embedded. Just like all terms, you may have mapped findings with any number of combinations of beginning date/time(s), ending date/times, or conditions associated with the mapped findings.

The menu option that is used to navigate to creating list rules is as follows:

1. From the Reminder Managers Menu, choose **PL**, then choose **LRM**.
2. This will take you to a window that is very similar to dialogs.
3. When you access these menus, the screen that is displayed is the window that displays all of your rule sets.
4. To change to the window that contains your finding rules, at the “Select Item” prompt, type **CV** for change view (exactly like dialog windows) and press Enter.
5. To access your finding rules, take the default of “F” at the “Type of View” prompt. This will take you to the finding rules. Anytime you want to change from one type of list rule to another, i.e. finding rule to patient list rule, you will use the CV option. This same navigation is used to access the other types of list rules and I will not ask you to have to read this again for each section. Just remember for the next sections how to navigate to the type of list rule you are wanting.
6. After you are in the window you want to be in, choose **CR** to create a new finding rule.

Select FINDING RULE to add: FR DIABETIC PATIENTS Are you adding 'FR DIABETIC PATIENTS' as a new REMINDER LIST RULE (the 344TH)? No// Y (Yes)
--

Used by: Not used by any rule set
NAME: FR DIABETIC PATIENTS Replace
SHORT DESCRIPTION:
CLASS: **L LOCAL**
REMINDER TERM: **TUS DIABETES DIAGNOSIS (Extract)** LOCAL ...OK? Yes//
(Yes)

The reminder term must already exist at time of entering into the field. Cannot be created on the fly.

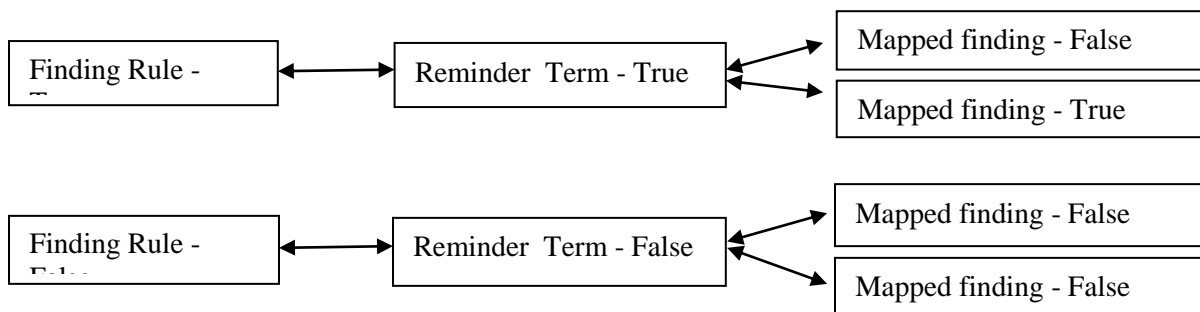
LIST RULE BEGINNING DATE/TIME:
LIST RULE ENDING DATE/TIME:
Input your edit comments. Edit? NO//

Most of the types of findings that can be defined in the reminder term have a Global Index (PXRMINDEX) for across-patient look-ups. However, the Global Index (PXRMINDEX) is not used for computed findings linked to a reminder term, unless the computed finding has hard-coded logic to access the Global Index. The typical computed finding assumes that the patient is already selected and does not support across-patient look-up. However, with V2.0, a computed finding can be specifically created for list-building purposes by defining the Type field in the computed finding definition as “List.” The List type computed finding can be used as the first rule or any subsequent rule in a rule set where the ADD PATIENT Operation is used. When a computed finding is used to SELECT or REMOVE patients from an existing patient list, a “single” or “multiple” type computed finding may be used.

What does all this actually mean to the user?

1. Any type of finding can be used as a mapped item of a term inside of a Finding Rule as the first sequence, except for Computed Findings (CF)
 - a. One exception to the above is a CF of a LIST type. LIST type CF’s can only have the ADD PATIENT operator function; therefore, it *can* be used as the first sequence of a rule set.
 - b. If you are using a CF in any other sequence than the first, you may use SINGLE, MULTIPLE, or LIST types of CF. Just remember, if you use the LIST type, the operator must be ADD PATIENT. If you use the SINGLE or MULTIPLE as any sequence but the first, you may use any operator. [How do I find out what type of CF I have?](#)

A finding rule will evaluate as TRUE if any mapped finding in the reminder term contained within the finding rule is true. If the Finding rule is true, then the logical operator associated with that finding rule will be invoked within the rule set which it is contained in, i.e. ADD PATIENT, SELECT, REMOVE.



Reminder Rules

Reminder Rules – This type of list rule uses an embedded existing reminder definition to achieve the desired results. Some important things to know about a reminder rule.

1. The embedded reminder definition must be an “L” usage type
2. In a reminder rule, *ONLY* the cohort logic is evaluated. If you have resolution logic, it will not be evaluated, but it also will not cause problems ☺
3. The cohort string cannot start with a logical “NOT”
4. The cohort string cannot contain a logical “OR NOT”
5. If AGE is used in the cohort logic string, then a baseline age range must be defined
6. If SEX is used in the cohort logic string, the reminder must be sex-specific
7. SEX cannot be the first element of the cohort logic string unless it is followed by AGE
8. If a finding sets the frequency to 0Y, which effectively removes the patient from the cohort, it can’t have an associated age range

Wow, a lot of limitations here!!! Reminder rules have their place, but they are not used as often as finding rules.

From the List Rule Management options, choose the Change View option (**CV**) and then select “**R**” for reminder rules, then select **CR** to create a rule

Vista example of creating a reminder rule

```
Select REMINDER DEFINITION RULE to add: RR FLU HIGH RISK
Are you adding 'RR FLU HIGH RISK' as
a new REMINDER LIST RULE (the 345TH)? No// Y (Yes)

Used by: Not used by any rule set

NAME: RR FLU HIGH RISK//
SHORT DESCRIPTION:
CLASS: L LOCAL
REMINDER DEFINITION: AM HIGH RISK FLU LOCAL
LIST RULE ENDING DATE/TIME:
Input your edit comments.
Edit? NO//
```

Again, the reminder definition AM HIGH RISK FLU must meet all the criteria outlined above for reminder rules for it to function.

The LIST RULE ENDING DATE/TIME field is essentially the evaluation date, similar to using the reminder test option’s evaluation date/time. If you leave this blank, TODAY will be assumed.

To sum all the above up, when using a reminder rule in a rule set as a sequence, the results obtained from the reminder rule will be the cohort logic only of the reminder definition being used. Again, all of the other constraints on reminder rules will apply.

Patient List Rules

Patient List Rules- Patient list rules are exactly what their name implies they are -- rules that are based on an existing patient list. When using patient list rules in extracts, you can create a patient list rule that will be used by the extract that is based on a patient list that doesn't exist *yet*, but will exist when the patient list rule is used. If this doesn't make sense now, hopefully it will very soon! We will cover this idea of using a patient list rule based on a list that doesn't exist in just a bit.

A patient list can be created three ways:

1. Creating a patient list when running a reminders due report (there is a prompt to create a patient list)
2. Creating the patient list from a rule set within a Patient List Management option
3. Creating a patient list when a rule set is invoked within an extract run

From the List Rule Management options, choose the Change View option (**CV**) and then select “**P**” for reminder rules, then select **CR** to create a rule

```
Select PATIENT LIST RULE to add: AJM EXTRACT
Are you adding 'AJM EXTRACT' as a new REMINDER LIST RULE (the 417TH)? No// Y
(Yes)

Used by: Not used by any rule set

NAME: AJM EXTRACT//
SHORT DESCRIPTION:
CLASS: L LOCAL
USE EXISTING PT LIST: AJM EXTRACT LIST
Input your edit comments.
Edit? NO//
```

As stated above, once a patient list exists, then it may be used as a sequence of a rule set as a patient list rule. Any of the [logical operators](#) (mentioned in the Rule Set section) may be used in conjunction with the patient list rule within the rule set.

Let's now discuss the anomaly of using a patient list that doesn't exist, but will exist at the time of evaluation. This will only happen when using rule sets within extracts. This is an advanced concept and may take a while to totally grasp....

When a rule set which is composed of finding rules, reminder rules, and patient list rules (not necessarily all of them, but at least one or a combination) is invoked within an extract definition set to run, by design, a patient list will be created. In the example below, you will see the field within the extract sequence that asks the user for the name of the patient list that will be created. Other fields are listed, but disregard these at this point.

```
Select EXTRACT SEQUENCE: 8// 1          RS NEXUS COHORT (Extract)
EXTRACT SEQUENCE: 1//
LIST RULE SET: RS NEXUS COHORT (Extract)//
EXTRACT PT LIST NAME: NEXUS COHORT Mnn yyyy Replace
INCLUDE DECEASED PATIENTS: YES//
INCLUDE TEST PATIENTS: NO//
Select REMINDER SEQUENCE:
```

So, you have the concept that when the extract runs, each sequence within the extract will invoke a rule set and will create a patient list. Let's say, for example, that sequence one in our hypothetical extract is a rule set to create a Nexus Cohort and sequence two would be to create a diabetic cohort which is a smaller subset of the Nexus Cohort group....again, without understanding what a "Nexus Cohort" is, let's put this in general terms.

Once the rule set for Nexus Cohort runs and creates a patient list (let's say that that list has 1500 patients) we would like to use that patient list (1500 patients) as a starting point to create a separate refined list that only contains diabetics, and let's say that list has 750 patients.

At this point, our cohort would be patients that met the nexus definition AND who are diabetic (750 of 1500 patients). Since extracts process in sequence, our first sequence is to create the nexus cohort (and create a patient list, of 1500 patients, by using a rule set) and then the second sequence would use THAT patient list of 1500 as a starting point to further refine down to the diabetic cohort, 750 of 1500 patients.

The way that this is accomplished is that the second sequence of the extract uses a rule set that starts out using a patient list rule that is based on the patient list created in the first sequence of the extract. In essence, immediately following the creation of the patient list for Nexus Cohort, we use that patient list within a patient list rule to start out creating our diabetic cohort.

Maybe a picture will be worth a thousand words:

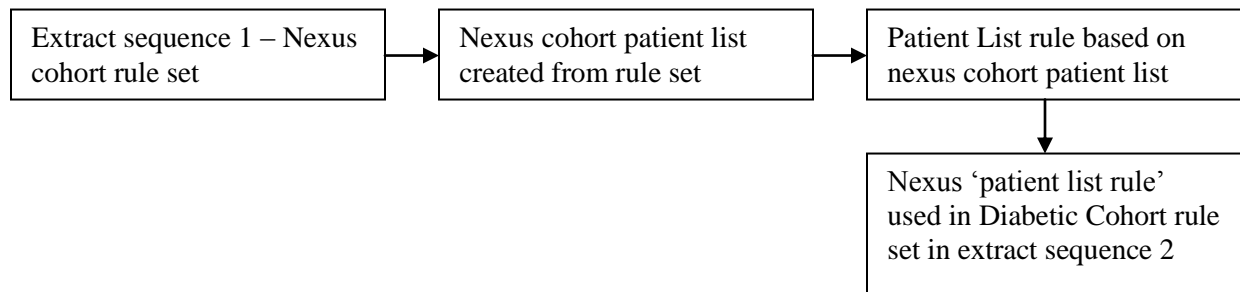
Extract Definition

Sequence 1: Nexus Cohort rule set

A patient list of patients is created who meet the criteria of the rules in the rule set

Sequence 2: Diabetic cohort rule set

This rule set begins with a patient list rule that is based on the patient list created from sequence one.



Extract Definition in VistA

```
EXTRACT SEQUENCE: 1//
LIST RULE SET: RS NEXUS COHORT (Extract)//  ←This is the rule set to build nexus
cohort
EXTRACT PT LIST NAME: NEXUS COHORT Mnn yyyy  ←This is the patient list that will be
created when the rule set is completed.  Don't worry about the Mnn yyyy for now.
INCLUDE DECEASED PATIENTS: YES//
INCLUDE TEST PATIENTS: NO//
Select REMINDER SEQUENCE:

Here is the breakdown of the RS NEXUS COHORT (Extract) rule set:
    Name:  RS NEXUS COHORT (Extract)
    Number:  110
    Class:  LOCAL

Description:

    Rule Type:  RULE SET

Component Rules
-----

    Sequence: 1
    Operation: ADD PATIENT
    List Rule: <some list rule>

    Sequence: 2
    Operation: <some logical operator>
    List Rule: <some list rule>

    Sequence: 3
    Operation: <some logical operator>
    List Rule: <some list rule>
```

Next, the second sequence of the extract runs after the first is completed. Here is the second sequence:

```
Select EXTRACT SEQUENCE: 2          RS FACILITY DM MEASURES
EXTRACT SEQUENCE: 2//
LIST RULE SET: RS FACILITY DM MEASURES//  ←This is the rule set to build diabetes
cohort
EXTRACT PT LIST NAME: FACILITY DM MEASURES Mnn yyyy  ←This is the patient list that
will be created when the rule set is completed.  Again, don't worry about the Mnn yyyy
for now.
INCLUDE DECEASED PATIENTS: NO//
INCLUDE TEST PATIENTS: NO//
Select REMINDER SEQUENCE:

Here is the expansion of the RS FACILITY DM MEASURES rule set:
    Name:  RS FACILITY DM MEASURES
    Number:  281
    Class:  LOCAL
```

```
Description:

    Rule Type:  RULE SET

Component Rules
-----
```

```

Sequence: 1
Operation: ADD PATIENT
List Rule: PL NEXUS COHORT ←Here is the patient list rule that is based on
Nexus list created from sequence 1 of the extract
Description:
Rule Type: PATIENT LIST RULE

```

Use Extract PT List Named: NEXUS COHORT Mnn yyyy ←Here is the key connection! If you can understand this, you are well on your way to understanding the complete process! In the set-up of the patient list rule, the field USE EXTRACT PT LIST NAMED entry must be the name of the patient list created from sequence 1 of the extract. Look above in that field of extract sequence 1 and see that entry is the same as what you see in the patient list rule EXTRACT PT LIST NAMED field.

Sequence: 2: Whatever happens based on the operator (ADD PATIENT, SELECT, REMOVE) of this sequence will start with the patients that met the NEXUS COHORT (patients who are “in” the nexus list)
 Operation: <some logical operator>
 List Rule: <Some List Rule>

Sequence: 3
 Operation: <some logical operator>
 List Rule: <Some List Rule>

Each patient list has a unique name and is stored in file 810.5 (REMINDER PATIENT LIST). These can be overwritten with a subsequent run of an extract or a reminder report.

Rule Sets

Rule sets are a sequence of steps that are made up of list rules that are connected together with a logical operator. The three types of list rules are:

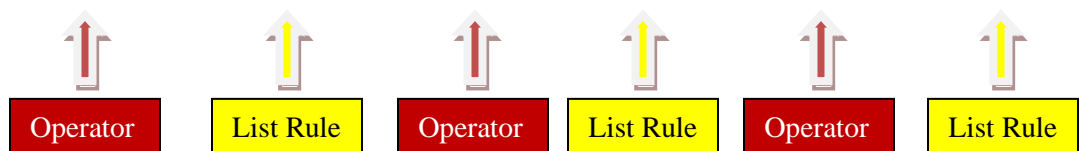
1. Finding Rule
2. Reminder Rule
3. Patient List Rule

To create/Edit any of the above, you must be in LIST RULE MANAGEMENT which is a sub menu of PATIENT LIST MANAGEMENT from the main reminders menu. Take a look here and notice all the options you have available at the bottom of the screen.

The types of logical operators that connect each sequence within the rule set are as follows:

1. Add Patient (like the Boolean “OR”)
2. Select (like the Boolean “AND”)
3. Remove (like the Boolean “AND NOT”)

Let’s think about it like a train that is connected together, except that trains usually are not in a logical sequence whereas we hope our rule set is. For this example, we will use generic names for our list rules.
 Example: <ADDPATIENT>FINDING RULE 1<SELECT>FINDING RULE 2<REMOVE>REMINDER RULE 1



Now let's use a real-life example to further illustrate a rule set and see what the result is from the rule set.

Finding Rule for Diabetic Patients –FR DIABETES

Finding Rule for A1C Lab test >9.0 – FR HGBA1C>9.0

Finding Rule for age >75 – FR AGE>75

<ADD PATIENT>FR DIABETES< SELECT>FR HGBA1C>9.0<REMOVE>FR AGE>75



So, what are the results of this rule set? Diabetic patients who have a lab test of HGBA1C greater than 9.0 and who are 75 years of age or younger. Is that what you came up with? If not, stop a minute and think about the results. The first sequence (FR DIABETES) found our diabetic patients; then from those patients, we used sequence two (FR HGBA1C>9.0) to select (AND) the ones who had a HGBA1C greater than 9.0. Next we used sequence three (FR AGE>75) to remove (AND NOT) patients who were over the age of 75.

Using Reminders to obtain data in the extract

So far, all we have from the Extract is nothing but a list of patients. We will continue to use the diabetes example. Our list now contains diabetic patients who have met the Nexus Cohort restrictions. Now what?? This list of patients is the APPLICABLE or our denominator. How do we get our numerator?

To obtain our numerator, we need to run reminder definition(s) against this patient list. To do this, we have to add in reminders to our extract definition. Reminders that already exist can be used for this, but most of the time, you will want to make a copy of an existing reminder and make edits or create a new one from scratch. The main reason to not use an existing reminder is that you will normally not need any cohort logic because your cohort has been built within the rule sets of the extract definition. This makes for faster evaluation of the reminders leading to quicker availability to data. Also, a lot of reminders have a DUE IN ADVANCE TIMEFRAME entry and this would affect your data.

Let's discuss some rules that will apply to the reminders that will be used in the extract.

1. The USAGE field needs to have an * or an X.
2. Cohort logic must contain something. If your rule set has entirely built your cohort, your reminder still must have something. I would suggest using a customized logic string of SEX
3. All other things about reminders would apply as normal when they are evaluated in the extract

How do I enter the reminder definitions into my extract definitions?

When you go back and edit your extract definition, you choose the appropriate sequence number. For this example, it would be the sequence number dealing with the diabetes section. As you scroll through the fields, you will see a field named 'Select REMINDER SEQUENCE'. Here you would enter a sequence number, then enter in the .01 name of the reminder definition (not the print name). More than one reminder can be entered for each sequence of the extract definition. You would just need to give each reminder that you add a distinct sequence number. You will notice in the example below that the reminder definition has an (X) at the end. This is actually part of the reminder definition given by the person who created the reminder definition.

```

Select EXTRACT SEQUENCE: 2          RS FACILITY DM MEASURES
EXTRACT SEQUENCE: 2//
LIST RULE SET: RS FACILITY DM MEASURES//
EXTRACT PT LIST NAME: FACILITY DM MEASURES Mnn yyyy
      Replace
INCLUDE DECEASED PATIENTS: NO//
INCLUDE TEST PATIENTS: NO//
Select REMINDER SEQUENCE: 145// 100          DM A1C W/I LAST YEAR (X)
      REMINDER SEQUENCE: 100// ←Reminder Sequence number (arbitrary number)
      REMINDER: DM A1C W/I LAST YEAR (X)// ←Reminder definition
COUNTING RULE
Select REMINDER SEQUENCE:

```

Dates and how they affect your data

Remember that the patient lists are created from a rule set. The RULE SET TEST option within LIST RULE MANAGEMENT (specifically within RULE SETS area) is a great tool to let you know what your dates actually will be for your rule set, once it starts running. An example of the RULE SET TEST will be shown later.

There is a logical hierarchy within extracts. Within an extract, there exist many pieces and within these pieces, there are possibilities for date entries along the way. For example:

- Extract runs MUST have a beginning date/time and ending date/time
 - A Rule Set has the possibility for entry of a beginning date/time and ending date/time
 - A finding rule within a rule set has the possibility for entry of a beginning date/time and ending date/time
 - A reminder term in a finding rule has the possibility for entry of a beginning date/time and ending date/time
 - Within the reminder term, the mapped findings have the possibility for entry of a beginning date/time and ending date/time

So, if you had different dates in more than one place, which date would be used? The answer to this question is the date at the lowest level would trump a date at a higher level. Some things to think about when adding dates:

1. If you are using a reminder term in an extract, remember if you add dates at the term level or mapped item level within the term, they will also affect how that term is used any other place.
2. If a finding rule has dates, and it is used in more than one rule set, the dates may need to be different in each rule set within which they are used. This is a possible place for errors.
3. My inclination would be to put my dates at the highest level possible unless a piece at a lower level is specific to that one rule set.

Below is an example of using RULE SET TEST option. This example was testing the RS NEXUS COHORT rule set using the month of June. You can see that not all dates are 6/1-6/30. This means that there was a different date entered at a lower level within the rule set.

```
Enter Patient List BEGINNING DATE: 0601 (JUN 01, 2010)
Enter Patient List ENDING DATE: 0630 (JUN 30, 2010)
```

```
List Build Beginning Date: 06/01/2010
List Build Ending Date: 06/30/2010
```

```
SEQUENCE 1 FR NEXUS COHORT
Operation: ADD PATIENT
TERM TUS NEXUS CLINIC (Extract)
FINDING 1-RL.NEXUS CLINIC COHORT FY08
Beginning Date/Time: 06/01/2010
Ending Date/Time: 06/30/2010@23:59:59
```

```
SEQUENCE 2 FR ANCHOR VISIT
Operation: SELECT
TERM TUS ALL LOCATIONS (Extract)
FINDING 1-RL.VA-ALL LOCATIONS
Beginning Date/Time: 06/01/2008
Ending Date/Time: 05/02/2009@23:59:59
```

```
SEQUENCE 3 VA-FR-DATE OF DEATH
Operation: REMOVE
TERM VA-DATE OF DEATH
FINDING 1-CF.VA-DATE OF DEATH
Beginning Date/Time: 0
Ending Date/Time: 05/31/2010@23:59:59
```

```
SEQUENCE 4 FR VA VETERAN
Operation: SELECT
TERM TUS VA VETERAN
FINDING 1-CF.VA-VETERAN
Beginning Date/Time: 06/01/2010
Ending Date/Time: 06/30/2010@23:59:59
```

Extract Definitions

This section of the guide will help you learn how to set up your extract definition. It is important to have all your pieces ready (rule sets, reminder definitions) to add into your extract definitions. Some good advice would be to create a “map” before you even start building any pieces of the extract, i.e. reminder terms, finding rules, reminder rules, patient list rules, etc.

Once you have your rule sets complete and have tested them to ensure that you will get the proper data returned by the dates you have entered along the way, it is time to add them to your extract definition. You may be creating your extract definition from scratch or you may be editing an already existing definition. Think about the sequential order that your extract needs to run – which rule set needs to run first. If you have a rule set that depends on something to be created (a patient list) to make it work, then the rule set that creates needs to be prior, sequentially.

To add a new extract or edit an existing one:

1. Use the **XM** menu option from the Reminder Managers menu,
2. Choose **ED** option.
3. Choose **CR** or **DE**, depending on what you need to do.

Below is a screen shot from VistA on creating a new extract definition. It includes all the field entries and responses you will need to know about at this time. Also, don't be concerned at this point about the **Mnn yyyy** that you see below. This will be explained later.

```
Select EXTRACT DEFINITION to add: EXTRACT FOR GUIDE
Are you adding 'EXTRACT FOR GUIDE' as
a new REMINDER EXTRACT DEFINITION (the 20TH)? No// Y (Yes)

NAME: EXTRACT FOR GUIDE//
CLASS: L LOCAL
TYPE OF TOTALS: ?
    Choose from:
        CT      COMPLIANCE TOTALS ONLY
        CF      COMPLIANCE AND FINDING TOTALS
TYPE OF TOTALS: CT COMPLIANCE TOTALS ONLY
DESCRIPTION:
    No existing text
    Edit? NO//
REPORT FREQUENCY: ?
    Enter the report frequency.
    Choose from:
        Q      QUARTERLY
        M      MONTHLY
        Y      YEARLY
REPORT FREQUENCY: M MONTHLY
Select EXTRACT SEQUENCE: 5 ←This is an arbitrary number
Are you adding '5' as a new EXTRACT SEQUENCE (the 1ST for this REMINDER EXTRA
(Yes)
    EXTRACT SEQUENCE LIST RULE SET: RS NEX
        1 RS NEXUS COHORT (Extract)      RULE SET
        2 RS NEXUS COHORT (LIST)         RULE SET
        3 RS NEXUS IMMUNIZATION REPORT FY08      RULE SET
        4 RS NEXUS WITH DM OR IHD AND VETERAN      RULE SET
CHOOSE 1-4: 1 RS NEXUS COHORT (Extract)      RULE SET
LIST RULE SET: RS NEXUS COHORT (Extract)//
EXTRACT PT LIST NAME: PATIENT LIST FOR NEXUS COHORT Mnn yyyy
INCLUDE DECEASED PATIENTS: n NO
INCLUDE TEST PATIENTS: n NO
Select REMINDER SEQUENCE: ←No reminder added at this point
Select EXTRACT SEQUENCE: 10
Are you adding '10' as a new EXTRACT SEQUENCE (the 2ND for this REMINDER EXTR
(Yes)
    EXTRACT SEQUENCE LIST RULE SET: RS FACILITY
        1 RS FACILITY CANCER MEASURES      RULE SET
        2 RS FACILITY CANCER MEASURES (Q)      RULE SET
        3 RS FACILITY CARDIOVASCULAR MEASURES      RULE SET
        4 RS FACILITY CARDIOVASCULAR MEASURES (Q)      RULE SET
        5 RS FACILITY DM MEASURES      RULE SET
Press <RETURN> to see more, '^' to exit this list, OR
CHOOSE 1-5: 5 RS FACILITY DM MEASURES      RULE SET
LIST RULE SET: RS FACILITY DM MEASURES//
EXTRACT PT LIST NAME: DIABETIC COHORT Mnn yyyy
INCLUDE DECEASED PATIENTS: N NO
INCLUDE TEST PATIENTS: N NO
Select REMINDER SEQUENCE: 5
Are you adding '5' as a new REMINDER SEQUENCE (the 1ST for this EXTRACT RULES
(Yes)
    REMINDER SEQUENCE REMINDER: DM
        1 DM A1C W/I LAST YEAR (X)      LOCAL
        2 DM A1C<7.0 (X)      LOCAL
        3 DM A1C>9.0 (X)      LOCAL
```

```

4    DM BP <130&<80 (X)          LOCAL
5    DM BP <140&<90 (X)          LOCAL
Press <RETURN> to see more, '^' to exit this list, OR
CHOOSE 1-5: 1  DM A1C W/I LAST YEAR (X)      LOCAL
    REMINDER: DM A1C W/I LAST YEAR (X)//
    COUNTING RULE: <No entry at this point
Select REMINDER SEQUENCE: 10  <arbitrary number
Are you adding '10' as a new REMINDER SEQUENCE (the 2ND for this EXTRACT RULE
(Yes)
    REMINDER SEQUENCE REMINDER: DM A1C
    1    DM A1C W/I LAST YEAR (X)          LOCAL
    2    DM A1C<7.0 (X)          LOCAL
    3    DM A1C>9.0 (X)          LOCAL
    4    DM A1C DONE      ZTUS DM AND A1C DONE (RPT)      LOCAL
    5    DM A1C>9.0      HGBA1C>9.0      LOCAL
Press <RETURN> to see more, '^' to exit this list, OR
CHOOSE 1-5: 2  DM A1C<7.0 (X)      LOCAL
    REMINDER: DM A1C<7.0 (X)//
    COUNTING RULE: <No entry at this point
Select REMINDER SEQUENCE:

```

To summarize the extract definition:

1. Extract definition is made up of rule set(s) which are processed in sequence and a patient list is created when each rule set completes. This list of patients makes up your applicable group or denominator for the specific rule set. Another way to say this is that if you have 5 rule sets, you will have 5 patient lists, therefore 5 applicable groups.
2. Reminder definitions can optionally be evaluated against the patient list created from each sequence of the extract definition. Once the reminder definitions are evaluated, the DUE patients make up your numerator.

Running the Extract

There are two ways to create or start an extract:

1. Manual
2. Automatic

Manual Method

This makes the extract start processing the rule sets in the sequence that is contained within the extract definition..

1. Again, you will access the **XM** menu from the reminder managers menu,
2. then choose the **MA** menu option,
3. then choose the **VSE** action. When you choose the **VSE** action, you need to make sure your extract definition appears in the list to be able to choose it. Choose your extract definition, then choose the **ME** action for “manual extract”.
4. At the Select EXTRACT PERIOD (Mnn/yyyy): // prompt, choose your reporting month and year in the syntax of Mnn/yyyy. So, if your reporting month was June of 2010, at the prompt, you would enter M06/2010.

At this point, you may be thinking about the Mnn yyyy in the extract definition. What happens when you choose your month and year for the manual extract to run? Anywhere you have defined Mnn yyyy in the name of the patient lists created from the rule set, M06 2010 will be substituted for the Mnn yyyy. After your extract completes, you can go to the patient list management section of reminders and you will NOT see a list with a literal Mnn yyyy in the name, but you *will* see M06 2010 instead. Magic!! ☺.

Now you just have to let the extract complete. The time it takes will depend on how many rule sets, how many reminders you are evaluating, and the complexity of the reminders.

After the extract completes, if you are a member of your local reminders mail group, you will receive a VistA mail message that the extract is complete.

5. To view your results, access the **XM** menu, the **MA** menu and then choose the **VSE** action. You will see your completed extract on the screen. Choose the number that corresponds to your extract and you will be able to view your results.
6. At the Select Action prompt, take the default of **ES**. You should see data for the reminders that you defined in your extract in the format of TOTAL, APPL., N/A, DUE and NOT DUE.

Below is a screen shot from VistA to demonstrate what you should see.

Extract Summary Name: FACILITY MH PM 2010 M06						
Extract Period: 06/01/2010 - 06/30/2010			Created: 07/28/2010@22:49:15			
Item	Patient List/Station/Reminder	Total	Appl.	N/A	Due	Not Due
679/DM	A1C W/I LAST YEAR	807	807	0	74	733
679/DM	A1C>9.0	807	807	0	732	75

You may be wondering why there is 0 in the N/A column. This is because we used the rule set for our cohort, not the reminder definition. This is one of the reasons extracts are more efficient because there is less evaluation time due to the fact that everybody on the patient list is in the cohort.

Automating the extract process

This will involve your IRM department. They will have to create an option, set that option in Taskmanager Management Options and queue it to run monthly. Then in FileMan, you/IRM will have to set a field to make sure the correct reporting period is being accessed. We will discuss this in detail below.

Step 1. Create the new option in VistA. You can give it a unique name to your system.

- Access the XUMAIN option from the programmer prompt or another way would be to access MENU MANAGEMENT option from the EVE menu.
- At the Select Menu Management Option, choose EDIT.

```
Select Menu Management Option: EDIT options

Select OPTION to edit: TUS MONTHLY PM      MONTHLY PC PM  ←unique name for your site,
you will be asked to add this as a new option (since my option already existed, I was
not prompted to add as new)
NAME: TUS MONTHLY PM//
MENU TEXT: MONTHLY PC PM// ←Choose a name for the MENU TEXT
```

```

PACKAGE: CLINICAL REMINDERS// ←Choose CLINICAL REMINDERS as the PACKAGE
OUT OF ORDER MESSAGE:
LOCK:
REVERSE/NEGATIVE LOCK:
DESCRIPTION: ←enter some descriptive text for this option
This option is for use within Clinical Reminder extracts. This option is
tasked monthly by taskman utility

    Edit? NO//
TYPE: run routine//
HEADER:
ENTRY ACTION: D AUTO^PXRMTX("FACILITY MONTHLY PM", "Y")
                Replace ←The yellow highlighted text is the NAME of your extract
                definition you want to run
EXIT ACTION:
ROUTINE:
CREATOR: CRPROVIDER, ONE// ←This field will be automatically filled in by the creator
HELP FRAME:
PRIORITY:
Select TIMES PROHIBITED:
Select TIME PERIOD:
RESTRICT DEVICES?:
Select PERMITTED DEVICE:

```

Step 2: Go to Taskman and set this option to run monthly.

- Access the menu option XUTM MGR from the programmer prompt or the TASKMAN MANAGEMENT option from the EVE menu.
- Then choose Schedule/Unschedule Options.
- Select Taskman Management Option: schedule/Unschedule Options

```

Select OPTION to schedule or reschedule: tus monthly PM      MONTHLY PC PM ←choose
the option created from step 1
    ...OK? Yes//      (Yes)
    (R)
                Edit Option Schedule
    Option Name: TUS MONTHLY PM
    Menu Text: MONTHLY PC PM                                TASK ID: 8824177
    _____

    QUEUED TO RUN AT WHAT TIME: JUL 3,2010@03:00      ←set the date to run after the first
    of the next month. Make sure it doesn't conflict with any other tasks

DEVICE FOR QUEUED JOB OUTPUT:

QUEUED TO RUN ON VOLUME SET:

    RESCHEDULING FREQUENCY: 1M      ←Set the option's frequency to monthly

    TASK PARAMETERS:

    SPECIAL QUEUEING:

```

Step 3: Give FileMan a starting month to start the automatic extract. This will be a one-time entry. Once you create your extract definition, it will be visible in the file.

- From the FileMan Menu, choose “Enter or Edit file entries”
- Choose file 810.2 (REMINDER EXTRACT DEFINITION)
- Then choose your extract definition.
- Then you will need to add an entry to the “NEXT REPORTING PERIOD/YEAR” field. The NEXT REPORTING PERIOD would be the month immediately preceding the month that is defined as your report queue date in Taskman. For example, if your beginning report queue date in Taskman is July 3, 2010, your NEXT REPORTING PERIOD would be June 2010 (M06/2010).

Once you have completed steps 1-3, your extract will be set up to automatically run each month, NO MAINTENANCE NECESSARY!! Nice!! ☺ You will only have to go get the results from the Extract menus as described before.

Even though you have set the extract to run automatically, you can still make manual runs of your extract at any time. Do remember that these can be system-intensive, so take care to run this at off times. If your extract is small, then this will not be an issue.

Understanding your Output

Now that you have data, what does it all mean? We mentioned earlier about the Applicable number being your denominator and the DUE number being your numerator. Once you have those numbers, it is as simple as doing the math, or having an excel spreadsheet do the math for you!

So, for an example, let's say for HGB A1C>9.0 for diabetics performance measure you have 1000 applicable patients from the extract and you have 100 patients that have A1C>9.0 lab value. Then you are 90% compliant on diabetic patients having A1C<9.0.

FAQ:

1. Q. How do I know what type of Computed Finding I have, i.e. Single, Multiple or List?
A. One way is to use the CFL option from the CF management menu option from the Reminder Managers menu. Enter the name of the specific CF and check the TYPE field entry. Another way is to look this up in FileMan from file 811.4 and check the TYPE field entry.
2. Q. Reminder rules require the use of a reminder definition which must be “L” type. How do I find out what usage type my reminder definition is?
A. From the Reminder Managers menu, choose RM, then RI, and look for the entry in the USAGE field.

Access to National Extracts at AAC

1) Go to vaww.aac.va.gov, which will require you to enter your national access username e.g:

User: VHAXXXXXX\vhaisxxxxx

Password: enter your national password

2) Register for access to Austin system to get customer ID and initial logon password

Go to <http://vaww.aac.va.gov/servicedesk/> on the VA intranet

Select Publications and Forms on the service desk webpage

Under the Forums category: Select VA FORM 9957

Questions? Access the following FAQ webpage:

<http://vaww.aac.va.gov/servicedesk/HDDocs/FAQ.pdf>

Reminder Orderable Item Group Menu

The Clinical Reminders patch PXR*2*16 and bundled patches (OR*3.0*280, PSJ*5.0*226) release new functionality that allow sites to create their own CPRS Order Checks using Clinical Reminder Definitions or Terms. Both Reminder Exchange and the Review Date Report have been enhanced to support the Clinical Reminder Order Check functionality.

This patch contains a new computed finding, VA-ACTIVE PATIENT RECORD FLAGS.

This computed finding will allow sites to evaluate whether a patient has a specific active record flag on the date of evaluation.

Sites will be able to create local order checks using the Clinical Reminder functionality. These Order Checks will happen at the time the user clicks on the accept button when placing an order in CPRS. This functionality is available with PXR*2.0*16 and CPRS 28. The set-up of a Clinical Reminders Order Check consists of two parts::

- Creating a group of orderable items that the rules should be applied to.
- Creating the rules that will be applied to the orderable item when accepting an order in CPRS. It will be possible to have the same orderable item in multiple groups. Each rule assigned to the different groups will be evaluated when placing the orderable item in CPRS. The order check groups and the rule will be stored in the Reminder Order Check file, file #801

Note: Sites should evaluate all requests to create a Clinical Reminder Order Check to determine the importance of adding it. The more reminders that are used in an order check, the more they could affect the performance of the order check system. This file stores a pointer to an entry in the Orderable Item file, file #101.43. The reminder Order Check file **will not** automatically be updated with changes to the Orderable Item file, such as inactivating an existing orderable item, or if an ancillary package adds an item to the Orderable Item file. The entries in Reminder Orderable Item Group file, file #801, need to be evaluated by the site anytime an update is done to the Orderable Item file, file #101.43. The site will need to determine if it needs to remove an orderable item from an existing group or if it needs to add an orderable item to existing group.

Reminder Orderable Item Group Menu

A new menu Reminder Orderable Item Group Menu ...[PXR ORDERABLE ITEM GROUP MENU] has been added to the Reminder Managers Menu [PXR MANAGERS MENU]

This new menu contains three new options:

- Add/Edit Reminder Orderable Item Group [PXR ORDERABLE ITEM GROUP EDIT]
- Reminder Orderable Item Inquiry [PXR ORDERABLE ITEM GROUP INQ]
- Reminder Orderable Item Group Test [PXR ORDERABLE ITEM TESTER]

Add/Edit Reminder Orderable Item Group [PXR ORDERABLE ITEM GROUP EDIT] provides sites the option to create a new orderable item group and rules. This option is also used to edit existing orderable item groups or rules. The description above states that there are two parts to the setup of a Reminder Order Check; both are available through this single option.

Reminder Orderable Item Inquiry [PXRM ORDERABLE ITEM GROUP INQ] provides a way for the site to see the details of the Orderable Item group and the corresponding rules.

When entering both of these options, the user is presented with:

N: ORDERABLE ITEM GROUP NAME
O: ORDERABLE ITEM
R: REMINDER DEFINITION
T: REMINDER TERM
Q: QUIT

For Editing:

- Orderable Item Group Name allows the user to select an existing orderable item group by name or to create a new one.
- Orderable Item provides a list of orderable item groups that contain the selected orderable item. Users can then select the specific group they want to edit.
- Reminder Definition and Reminder Term provide a list of orderable item groups that have rules that contain the specific definition or the term. Users can then select the group they want to edit.

For Inquiry:

- Orderable Item Group Name allows the user to look up a specific Orderable Item Group Name. The output will display the orderable item group and the associated rules for the selected orderable item group.
- For the other options, the software will display all the orderable item groups and the associated rules that contain the selected item.

Reminder Orderable Item Group Test [PXRM ORDERABLE ITEM TESTER]

This option provides a way for the user to test the order check functionality in VistA. This option requires the selection of a patient and an orderable item. This duplicates the process of placing an order in CPRS. The output shows the results for all the appropriate reminder rules. In addition, the output shows some internal results that are not displayed in CPRS. The internal results are the evaluation results of a reminder definition or a reminder term. The evaluation result will start with "INTERNAL:." It also specifies if no rules are found for the different values in the testing flag and the severity fields.

Description of the setup fields for Reminder Orderable Group:

- Group Name: This is the name of the Orderable Group
- Description: Sites should use this field to describe the types of Orderable Items that should be defined in this Group.
- Add Orderable Item by Drug Class: This prompt will allow users to add all the orderable items associated with a VA Drug Class. Users will still be able to edit the list of orderable items after adding the orderable items associated with a VA Drug Class. Users should answer No if they are

not adding medication orderable items or not adding orderable items for a particular VA Drug Class.

- Orderable Item: Users can assign specific orderable item at this prompt.
- Each Orderable Item Group can have multiple rules defined for the Orderable Item Groups.
- Rule Name: This is the internal name of the rule.
- Display Name: This is the external name; the value in this field appears in the order check form in CPRS, if the rule triggers an order check.
- Active Flag: This flag determines if the rule is active. If the flag is set to No, then the rule will not be evaluated when an orderable item is placed.
- Testing Flag: This flag is used to mark if the rule should only be used with the Clinical Reminder Order Check Testing Rule. With OR*3.0*280, two new Order Check Rules will be released.
 - Clinical Reminder Order Checks Live: This rule allows all users access to the Clinical Reminder Order Checks.
 - Clinical Reminder Order Checks Testing: This rule should only be assigned to a smaller group of users. This order check rule and the testing field are used to allow the users to test the rule before allowing every user at the site access to the rule.
- How the active and testing flag should be used together:
 - When creating/editing an order check rule, the active flag should be set to No. The testing flag should be set to Yes
 - When testing an order check rule, the active flag should be set to Yes and the Testing Flag should be set to Yes
 - When allowing the entire facility access to the order check rule, the active flag should be set to Yes and the Testing flag should be set to No.
 - When disabling an order check rule, the Active flag should be set to No.
- Severity Flag: This field determines if the rule should require an override reason in the order check dialog. The three options are Low, Medium, and High. A severity of High will require that the user enter an override reason for the order check when signing the order.
- Rules can either be defined to run against a reminder term or a reminder definition. A reminder term is beneficial when the request is to evaluate the presence of specific data. (See Example #1). A reminder definition is beneficial if you need the full functionality of reminder cohort logic to determine if the rule should show in the order check form (See Example #2). The user can only define one or the other. If users define a reminder term, they will be prompted to answer the fields

that are for a reminder term. If users do not select a reminder term, they need to select a reminder definition and the associated fields.

- **Reminder Term:** This is a pointer value to the reminder term.
 - **Term Evaluation Status:** Reminder Term evaluation results are either True or False. This field lets the user determine if the rule should display in the order check form by selecting which reminder term status should be used.
 - **Order Check Text:** This is the order check text that will display in CPRS.
- **Reminder Definition:** This field will show if a reminder term is not defined. This is a pointer to the reminder definition.
 - **Definition Evaluation Status:** This field determines which reminder evaluation results cause the rule to appear in the order check form. The three possible values are:
 - **Due:** A selection of DUE will cause the rule to appear in the order check form if the reminder has a status of DUE NOW or DUE SOON.
 - **Applicable:** A selection of APPLICABLE will cause the rule to appear in the order check form if the reminder has a status of DUE NOW, DUE SOON, or RESOLVED.
 - **N/A:** A selection of N/A will cause the rule to appear in the order check form if the reminder has a status of N/A or NEVER.
 - **Output Text:** This field controls which text should appear in the order check form. This field can have one of three possible values:
 - **Order Check Text Only:** This value will only display the text defined by the user in the order check text field.
 - **Definition Text Only:** This value will display the text of the reminder evaluation. This text is similar to the Clinical Maintenance Output except it will not include the Status Line and the Frequency line in the output.
 - **Both Order Check and Definition Text:** This value will display the Order Check Text followed by the definition evaluation text.
 - **Order Check Text:** This is the order check text that will display in CPRS.

Example #1

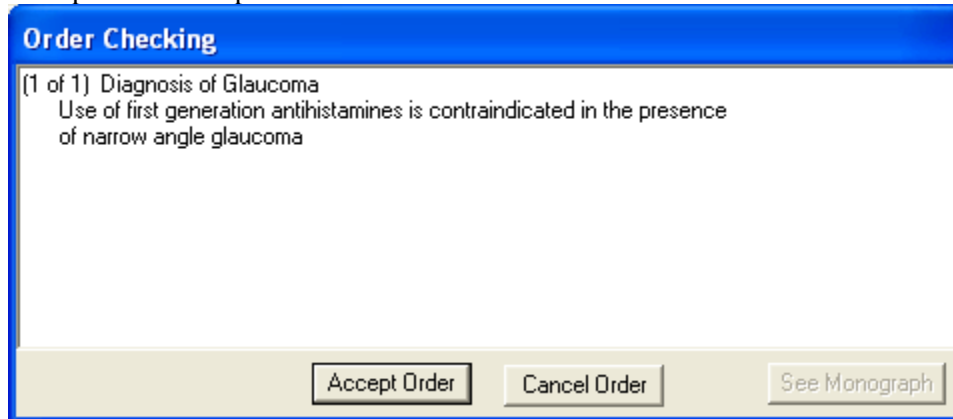
Problem:

Order Check needed for the interaction between timolol ophthalmic (used to treat glaucoma) and OTC antihistamines (which should not be used in the more rare narrow angle glaucoma).

Setup:

1. Create a reminder term that looks for the presence of a diagnosis of narrow angle glaucoma. (May need to look at multiple files depending on your site practice.)
2. Create an Orderable Item Group that contains all orderable items for any OTC Antihistamines.
3. Create a Rule that contains the term created in step 1.
4. Set the rule to trigger the order check if the reminder term is evaluated at True.
5. Create the text that should appear in the order check window.

Example of the Output in CPRS:



Description of solution: A reminder term was used in the setup because the presence of Glaucoma was all that is needed to determine if the rule should trigger an order check. In the screen shot above, the text "Diagnosis of Glaucoma" was defined in the Display Name field. The rest of the text was defined in the Order Check Text field. Note that the scenario began with the common misconception that what was needed is a drug-drug interaction order check, when in fact the final outcome was a much more specific drug-disease (diagnosis code) order check.

Example #2

Problem:

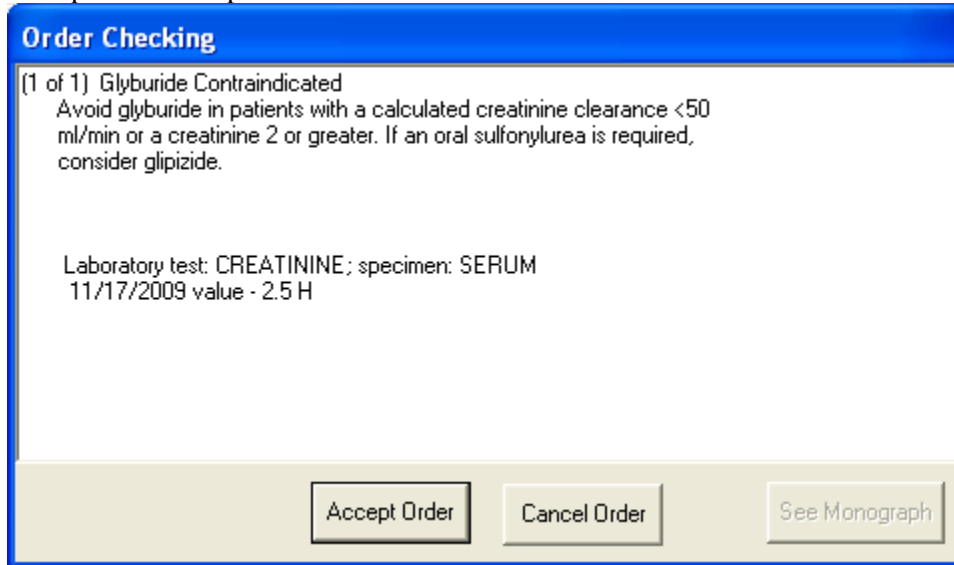
Order Check is needed when ordering Glyburide for patients age 65 or greater and serum creatinine 2.0 mg/dL or greater.

Setup:

1. Create a reminder definition that is applicable to the patient if the patient age is 65 or greater and the patient has a serum Cr 2.0 or greater.
2. Create an Orderable Item Group that contains all orderable items for the Glyburide.

3. Create a Rule that contains the definition created in step 1.
4. Set the rule to trigger the order check if the reminder definition is applicable to the patient.
5. Create the text that should appear in the order check window. Set the order text to display the finding output in the order check text.

Example of the output in CPRS



Description of solution:

We needed a reminder definition to match patients older than 64 who had a creatinine lab test with the results greater than 2. In this example, we set the rule up to display both the order check text and the definition evaluation text. The text "Glyburide Contraindicated" is defined in Display Name field. The text "Avoid glyburide in patients with a calculated creatinine clearance < 50 mL/min or a creatinine 2 or greater. If an oral sulfonylurea is required, consider glipizide," is defined in the order check text field. The rest of the text is returned from the reminder definition evaluation.

Example #3

Problem:

Order check desired to remind providers that the recommended dose of dabigatran (Pradaxa®) is reduced in the presence of declining renal function.

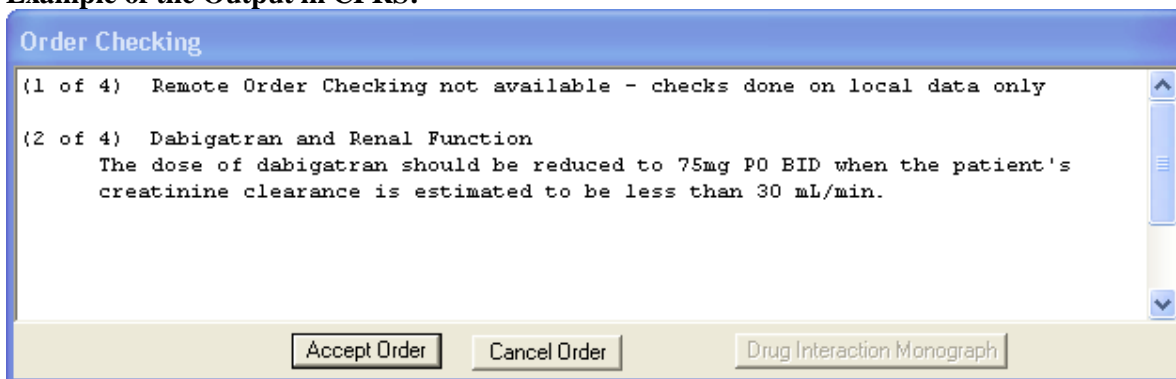
Setup:

1. Create a reminder term that will identify patients with reduced renal clearance. The package insert for Pradaxa ® suggests a threshold of 30 mL/min creatinine clearance, but a serum creatinine level above 2.0 mg/dL approximates the same degree of renal function.
2. Create a reminder order check rule that calls the reminder term created in step 1 when its status is TRUE. The rule also contains the text that will appear in the order check window.
3. Create an order check item group for the dabigatran pharmacy item. You can do this at the VA GENERIC level (e.g., DG.DABIGATRAN) at the DRUG level (e.g., DABIGATRAN 75MG CAP) or at the ORDERABLE ITEM level (e.g., DABIGATRAN CAP, ORAL). Note that even if

you use a specific strength at the drug level, all strengths will be order checked because CPRS actually uses the Orderable Item to perform the checks.

4. Connect the rule to the order check item group using the Add/Edit Reminder Order Check Items Group option.

Example of the Output in CPRS:



GEC Referral Report

This option is used to generate GEC Reports. GEC (Geriatrics Extended Care) is used for referral of geriatric patients to receive further care. This report is also available on the reminder reports menu.

```
Select Reminder Managers Menu Option: GEC  GEC Referral Report

All Reports will print on 80 Columns
  Select one of the following:

      1      Category
      2      Patient
      3      Provider by Patient
      4      Referral Date
      5      Location
      6      Referral Count Totals
      7      Category-Referred Service
      8      Summary (Score)
      9      'Home Help' Eligibility
     10      Restore or Merge Referrals
Select Option or ^ to Exit: 8// <Enter> Summary (Score)
Select a Beginning Historical Date.
BEGINNING date or ^ to exit:  (1/1/1988 - 6/30/2004): T-60//  (MAY 01, 2004)
Select Ending Date.
ENDING date or ^ to exit:  (5/1/2004 - 6/30/2004): T//  (JUN 30, 2004)
  Select one of the following:

      A      All Patients
      M      Multiple Patients
Select Patients or ^ to exit: A// ll Patients

  Select one of the following:

      F      Formatted
      D      Delimited
Select Report Format or ^ to exit: F// orformatted
DEVICE: HOME//  ANYWHERE  Right Margin: 80//

=====
GEC Patient-Summary (Score)
Data on Complete Referrals Only
From: 05/01/2004 To: 06/30/2004

Name                SSN                Finished      Basic Skilled Patient  TOTAL
                Date                IADL ADL      Care      Behaviors ACROSS
=====
CRPATIENT,ONE      (666009999)    06/15/2004    0    0    2    4    6
CRPATIENT,TWO      (666009998)    06/15/2004    0    7    9    5    21
CRPATIENT,THREE    (666009997)    05/04/2004    0    0    0    0    0
CRPATIENT,FOUR     (666009996)    05/11/2004    0    0    0    0    0
CRPATIENT,FIVE     (666009995)    05/11/2004    0    0    0    0    0
CRPATIENT,SIX      (666009994)    05/11/2004    0    0    0    0    0

Totals > >        0    7    11    9    27
Means > >         0.0  1.2  1.8    1.5  4.5
Standard Deviations > > 0.0  3.1  4.1    2.9  9.8

Enter RETURN to continue or '^' to exit:
```


Appendix A: Glossary

Acronyms

AAC - Austin Automation Center
AIMS - Abnormal Involuntary Movement Scale
API - Application Programmer Interface.
CAC - Clinical Application Coordinator
CNBD – Cannot be Determined (frequency)
CPRS - Computerized Patient Record System.
DBIA - Database Integration Agreement.
EPRP - External Peer Review Program
GUI - Graphical User Interface.
HSR&D - Health Services Research and Development
HL7 - Health Level 7
HRMHP – High Risk Mental Health Patient
IHD - Ischemic Heart Disease
IVMH – Improve Veterans Mental Health
MDD - Major Depressive Disorder
MHTC – Mental Health Treatment Coordinator
OEF/OIF – Operation Enduring Freedom/Operation Iraqi Freedom
OQP - Office of Quality and Performance
PD – Product Development
QUERI - Quality Enhancement Research Initiative
SAS - Statistical Analysis System
SRS - Software Requirements Specification
VHA - Veterans Health Administration.
VISN - Veterans Integrated Service Networks.
VISTA - Veterans Health Information System and Technology Architecture.

Definitions

AAC SAS Files

AAC SAS files contain data that is equivalent to data stored in the Reminder Extract Summary entry in the Reminder Extract Summary file. AAC manages SAS files for use by specifically defined users.

Applicable

The patients whose findings met the patient cohort reminder evaluation. In order for a reminder to be applicable, the Patient Cohort Logic must evaluate to true for the patient. In other words, when the Patient Cohort Logic is true, the patient is in the cohort and the reminder is applicable.

Autogenerate

Autogeneration is a tool for creating reminder dialogs from the reminder definition. It automatically adds dialog elements (sentences) to a reminder dialog for each finding on the reminder, with sentence text generated from the finding name. Appropriate parameters in the Dialog Parameters files that contain the prefix (e.g., *Patient received*) and suffix text (e.g., *at this encounter*) must be completed before autogeneration can work.

Example of autogenerated element: *Patient received Tobacco Use Education at this encounter*

Boolean Logic Operators

Boolean operators are connectors (AND, OR, NOT) used to produce more relevant/precise search results.

CNBD

Cannot be determined. If a frequency can't be determined for a patient, the Status and Due Date will both be CNBD and the frequency display that follows the status line will be "Frequency: Cannot be determined for this patient."

Computed Findings

A custom MUMPS routine used to find some specific patient characteristic. Computed findings are used when none of the standard findings will work. Sites can create their own computed findings

CSUB

When a Reminder Test is run, some elements of the FIEVAL array will have a "CSUB" subscript.

Example for an orderable item finding:

```
FIEVAL(5,"CSUB","DURATION")=1774
FIEVAL(5,"CSUB","ORDER")=3366^CA ULTRA^546;99RAP
FIEVAL(5,"CSUB","RELEASE DATE")=3010917.1625
FIEVAL(5,"CSUB","START DATE")=3010917
FIEVAL(5,"CSUB","STATUS")=PENDING
FIEVAL(5,"CSUB","STOP DATE")=
FIEVAL(5,"CSUB","VALUE")=PENDING
```

Each of the subscripts following "CSUB" may be used in a Condition (hence the abbreviation Condition SUBscript); for example:

```
I V ("DURATION") > 90
```

With patch 4, the use of "CSUB" data has expanded beyond Condition statements.

Dialog

A dialog is a list of items/actions/sentences that can be used to collect patient data and create Progress Note text. By clicking on checkboxes, you can indicate what actions were taken during an encounter. These dialog items are based on guidelines at your site and how your Reminder Managers define the reminders and dialogs.

A dialog is an entry in the Reminder Dialog file. The entry may be a dialog element, a dialog group, an additional prompt, a result element, or a result group. These are defined below:

Dialog element - A dialog element is defined primarily to represent sentences to display in the CPRS window with a check box. When the user checks the sentence off, the FINDING ITEM in the dialog element and the ADDITIONAL FINDINGS will be added to the list of PCE updates, orders, and mental health tests. The updates won't occur on the CPRS GUI until the user clicks on the FINISH button. Dialog elements may have components added to them.

Autogenerated components are based on the additional prompts defined in the Finding Type Parameters. Once a dialog element is autogenerated, the sites can modify it. Dialog elements may also be instructional text or a header. The FINDING ITEM and components are not defined in dialog elements.

Dialog group - Dialog groups are similar to menu options. They group dialog elements and dialog groups within its component multiple. The dialog group can be defined with a finding item and checkbox. The components in the group can be hidden from the CPRS GUI window until the dialog group is checked off.

Prompt - A prompt is defined for PCE prompts or as locally created comment checkboxes. The prompts do not have any components within them. PXRM-prefixed prompts are distributed in this file with the Clinical Reminder package.

Result element - A result element contains special logic that uses information entered during the resolution process to create a sentence to add to the progress note. The special logic contains a CONDITION that, when true, will use the ALTERNATE PROGRESS NOTE TEXT field to update the progress note. A separate result element is used for each separate sentence needed. The result element is only used with mental health test finding items. Default result elements are distributed for common mental health tests, prefixed with PXRM and the mental health test name. Sites may copy them and modify their local versions as needed.

Result group - A result group contains all of the result elements that need to be checked to create sentences for one mental health test finding. The dialog element for the test will have its RESULT GROUP/ ELEMENT field defined with the result group. Default result groups for mental health tests are distributed with the Clinical Reminders package. Sites may copy them and modify their local versions as needed.

Drawer

Drawers are what we call the buttons on the Notes tab for Templates, Reminders, and Encounters. After you begin a new note, you will see the Reminders button or “drawer.” Click to open the drawer and see a tree view of reminders that are due, applicable, and other reminders.

Due Evaluation

The process by which the Clinical Reminders program analyzes the patient database to determine if a reminder is due, applicable, or not applicable.

Reminders whose evaluation status meets due criteria for a patient.

Findings

Data from **VISTA** packages (Lab, Mental Health, PCE, Pharmacy, Radiology, Vitals, etc., and Computed Findings) are called Findings. Findings are used to define the Patient Cohort Logic and Resolution Logic and to provide relevant clinical information.

Finding type

This refers to the source of the finding, such as the files for Drugs, Education Topics, Exams, Health Factors, Immunizations, Laboratory Tests, Mental Health Instruments, Orderable Items, Radiology Procedures, Reminder Computed Findings, Reminder Taxonomies, Reminder Terms, Skin Tests, VA Drug Class, VA Generic, and Vital Measurements.

Folders:

All Evaluated This folder contains all reminders that have been evaluated.

Due This folder contains reminders that are due.

Applicable This folder contains reminders that are applicable but not due.

Not Applicable - This folder contains reminders that are not applicable.

Other Categories This folder contains Reminder Categories if they have been created at your site. Categories group together related reminders, to make processing more efficient. Each Category will have its own folder within the Other Categories folder.

Forced Value

Values that are automatically stuffed into dialogs. Two forced values are included in this release, PXRM REFUSED and PXRM REPEAT CONTRAINDICATED. The effect of a forced value is to automatically fill the PCE education “refused” field. These don't display on the dialog, but are built into the dialog when the autogenerate runs.

Health Factors

Patient information that can't be coded, such as Alcohol Use, Binge Drinking, Current Non-Smoker, Current Smoker, Currently Pregnant, Family Hx of Alcohol Abuse, Lifetime Non-Smoker, No Risk Factors For Hep C, etc.

National Database

All sites running IHD and Mental Health QUERI software transmit their data to a compliance totals database at the AAC.

Not Applicable

Reminders for patients whose findings did not meet the patient cohort reminder evaluation.

Not Due

Reminders for patients whose reminder evaluation status is not due.

Operation Enduring Freedom/Operation Iraqi Freedom

The Clinical Reminder, *Iraq & Afghan Post-Deployment Screen*, which identified veterans of Operation Enduring Freedom in Afghanistan and Operation Iraqi Freedom, was enhanced and distributed to sites in November 2005. The OEF/OIF data will be rolled up for regional and national reporting purposes.

Operators

M operators or computed expressions or Boolean operators are connectors (AND, OR, NOT) used to produce more relevant/precise search results.

Patient Cohort

A group of patients that meet the defined criteria (Patient Cohort Logic) for a reminder. In other words, if the reminder is applicable, the patient is in the cohort.

Patient Cohort Logic

This is the logic that specifies how findings are used to select the applicable patient population; i.e., the patient cohort. It is based on Mumps Boolean operators and their negations. The operators are: ! (OR), & (AND), !' (OR NOT), and &' (AND NOT).

Reminder Categories

A category defines a group of reminders and may include other sub-categories. Categories appear in the Other folder in the Notes and Consults tabs of the CPRS GUI.

Reminder Definitions

Reminder Definitions comprise a set of finding items used to identify patient cohorts and reminder resolutions. Reminders are used for patient care and/or report extracts.

Reminder Dialog

Reminder Dialogs comprise a set of text and findings that together provide information to the CPRS GUI, which collects and updates appropriate findings while building a progress note.

Resolution Logic

Resolution logic specifies how findings are used in resolving a reminder. It is based on Mumps Boolean operators and their negations. The operators are: ! (OR), & (AND), !' (OR NOT), and &' (AND NOT)

Reminder Patient List

A list of patients that is created from a set of List Rules and/or as a result of report processing. Each Patient List is assigned a name and is defined in the Reminder Patient List File. Reminder Patient Lists may be used as an incremental step to completing national extract processing or for local reporting needs. Patient Lists created from the Reminders Due reporting process are based on patients that met the patient cohort, reminder resolution, or specific finding extract parameters. These patient lists are used only at local facilities.

Reminder Terms

Reminder terms provide a way to map findings to a concept. For example a concept could be a diabetes diagnoses. If a site had used both a health factor and a taxonomy to record a diabetes diagnosis then they would map the health factor and the taxonomy to the term.

Report Reminders

Reminders may be defined specifically for reporting. Report Reminders do not have a related Reminder Dialog in CPRS and are not used by clinicians for patient care. However, clinical reminders that are used in CPRS may also be used for reminder reporting. All reminders targeted for national reporting are defined in Extract Parameters.

Resolve, Reminders

Recording or taking action that satisfies a reminder. For example, if

Resolution

a reminder exists for influenza immunization, giving a flu vaccine satisfies or resolves that reminder. Likewise, ordering lab tests or drugs or giving patient education can resolve a reminder.

Taxonomies

Coded data such as diagnoses or procedures with ICD or CPT codes. Reminder taxonomies provide a convenient way to group coded values and give them a name. For example, the VA-DIABETES taxonomy contains a list of diabetes diagnoses.

Term

Reminder terms provide a way to define a general term, for example diabetes diagnosis, which can be linked to specific findings.

Tree View

A hierarchical view of reminder categories, with reminders listed underneath. This view is visible when you press the Reminders button or when the reminders drawer is open. It shows the reminders divided into the Due, Applicable, and Other categories.

Appendix B: Clinical Reminder Order Checks Example

NOTE: PXR*2*22 will change the method for creating Order Checks, so this example will become invalid when that patch is released nationally.

In this example, an orderable item group is created called High Risk Meds for Suicide.

1. Create a group of orderable items that the rules should be applied to.

```
Select Reminder Managers Menu Option: ROI  Reminder Orderable Item Group Menu

OE      Add/Edit Reminder Orderable Item Group
OI      Reminder Orderable Item Inquiry
OT      Reminder Orderable Item Group Test

Select Reminder Orderable Item Group Menu Option: OE  Add/Edit Reminder Orderable Item Group
Select Reminder Orderable Item Group by one of the following:

N:  ORDERABLE ITEM GROUP NAME
O:  ORDERABLE ITEM
R:  REMINDER DEFINITION
T:  REMINDER TERM
Q:  QUIT

Select Reminder Orderable Item Group by:  (N/O/R/T/Q): N//  ORDERABLE ITEM GROUP NAME
```

2. Create the rules that will be applied to the orderable item when accepting an order in CPRS

```
Select Reminder Order Check Rule: HIGH RISK MEDS FOR SUICIDE
Are you adding 'HIGH RISK MEDS FOR SUICIDE' as
a new REMINDER ORDERABLE ITEM GROUP (the 6TH)? No// Y  (Yes)
GROUP NAME: HIGH RISK MEDS FOR SUICIDE  Replace <enter>
CLASS: L  LOCAL
SPONSOR: <enter>
REVIEW DATE: <enter>
DESCRIPTION:
No existing text
Edit? NO// <enter>
Select DRUG CLASS: CN601
TRICYCLIC ANTIDEPRESSANTS
Are you adding 'CN601' as a new DRUG CLASS LIST (the 1ST for this REMINDER ORDERABLE
ITEM GROUP)? No// Y  (Yes)
Adding Orderable Item: DESIPRAMINE TAB
Adding Orderable Item: DOXEPIN SOLN,ORAL
Adding Orderable Item: AMITRIPTYLINE TAB
Adding Orderable Item: AMITRIPTYLINE TAB
Adding Orderable Item: DESIPRAMINE TAB
Adding Orderable Item: DESIPRAMINE TAB
Adding Orderable Item: DOXEPIN CAP,ORAL
Adding Orderable Item: DOXEPIN CAP,ORAL
Adding Orderable Item: IMIPRAMINE TAB
Adding Orderable Item: IMIPRAMINE TAB
Adding Orderable Item: CLOMIPRAMINE CAP,ORAL
Adding Orderable Item: CLOMIPRAMINE CAP,ORAL
Adding Orderable Item: IMIPRAMINE PAMOATE CAP,ORAL
Adding Orderable Item: IMIPRAMINE PAMOATE CAP,ORAL
Adding Orderable Item: AMITRIPTYLINE INJ
```

```

Adding Orderable Item: AMITRIPTYLINE TAB
Adding Orderable Item: DOXEPIN CAP,ORAL
Adding Orderable Item: IMIPRAMINE TAB
Adding Orderable Item: PROTRIPTYLINE TAB
Adding Orderable Item: PROTRIPTYLINE TAB
Adding Orderable Item: NORTRIPTYLINE CAP,ORAL
Adding Orderable Item: NORTRIPTYLINE HCL 10MG/5ML SOLN,ORAL
Adding Orderable Item: NORTRIPTYLINE CAP,ORAL
Adding Orderable Item: NORTRIPTYLINE CAP,ORAL
Adding Orderable Item: DOXEPIN CAP,ORAL
Adding Orderable Item: IMIPRAMINE TAB
Adding Orderable Item: AMOXAPINE TAB
Adding Orderable Item: AMOXAPINE TAB
Adding Orderable Item: AMOXAPINE TAB
Adding Orderable Item: AMITRIPTYLINE TAB
Adding Orderable Item: AMITRIPTYLINE TAB
Adding Orderable Item: DESIPRAMINE TAB
Select DRUG CLASS: CN302
      BENZODIAZEPINE DERIVATIVE SEDATIVES/HYPNOTICS
Are you adding 'CN302' as a new DRUG CLASS LIST (the 2ND for this REMINDER ORDERABLE
ITEM GROUP)? No// Y (Yes)
Adding Orderable Item: LORAZEPAM INJ
Adding Orderable Item: OXAZEPAM CAP,ORAL
Adding Orderable Item: DIAZEPAM CAP,SA
Adding Orderable Item: LORAZEPAM TAB
Adding Orderable Item: CHLORDIAZEPOXIDE CAP,ORAL
Adding Orderable Item: CHLORDIAZEPOXIDE CAP,ORAL
Adding Orderable Item: CHLORDIAZEPOXIDE CAP,ORAL
Adding Orderable Item: CHLORDIAZEPOXIDE INJ
Adding Orderable Item: CLORAZEPATE CAP,ORAL
Adding Orderable Item: DIAZEPAM TAB
Adding Orderable Item: DIAZEPAM TAB
Adding Orderable Item: FLURAZEPAM CAP,ORAL
Adding Orderable Item: FLURAZEPAM CAP,ORAL
Adding Orderable Item: CLORAZEPATE TAB
Adding Orderable Item: CLORAZEPATE TAB
Adding Orderable Item: LORAZEPAM TAB
Adding Orderable Item: LORAZEPAM SOLN,ORAL
Adding Orderable Item: DIAZEPAM INJ
Adding Orderable Item: DIAZEPAM INJ
Adding Orderable Item: CLORAZEPATE CAP,ORAL
Adding Orderable Item: CLORAZEPATE CAP,ORAL
Adding Orderable Item: DIAZEPAM TAB
Adding Orderable Item: TEMAZEPAM CAP,ORAL
Adding Orderable Item: MIDAZOLAM 1MG/ML INJ,SOLN
Adding Orderable Item: MIDAZOLAM 1MG/ML INJ,SOLN
Adding Orderable Item: MIDAZOLAM 5MG/ML INJ,SOLN
Adding Orderable Item: MIDAZOLAM 5MG/ML INJ,SOLN
Adding Orderable Item: MIDAZOLAM HCL 2MG/ML SYRUP
Adding Orderable Item: OXAZEPAM CAP,ORAL
Adding Orderable Item: TRIAZOLAM TAB
Adding Orderable Item: TEMAZEPAM CAP,ORAL
Adding Orderable Item: TEMAZEPAM CAP,ORAL
Adding Orderable Item: TEMAZEPAM CAP,ORAL
Adding Orderable Item: LORAZEPAM INJ
Adding Orderable Item: ALPRAZOLAM TAB
Adding Orderable Item: ALPRAZOLAM TAB
Adding Orderable Item: TRIAZOLAM TAB
Adding Orderable Item: TRIAZOLAM TAB
Select DRUG CLASS: CN101
      OPIOID ANALGESICS
Are you adding 'CN101' as a new DRUG CLASS LIST (the 3RD for this REMINDER ORDERABLE
ITEM GROUP)? No// Y (Yes)

```

Adding Orderable Item: PROPOXYPHENE/ACETAMINOPHEN TAB
 Adding Orderable Item: MORPHINE INJ
 Adding Orderable Item: CODEINE INJ
 Adding Orderable Item: CODEINE TAB
 Adding Orderable Item: HYDROMORPHONE TAB
 Adding Orderable Item: ACETAMINOPHEN/CODEINE ELIXIR
 Adding Orderable Item: MEPERIDINE TAB
 Adding Orderable Item: METHADONE SOLN, ORAL
 Adding Orderable Item: METHADONE TAB
 Adding Orderable Item: METHADONE TAB
 Adding Orderable Item: MORPHINE INJ
 Adding Orderable Item: MORPHINE INJ
 Adding Orderable Item: BELLADONNA/OPIUM SUPP, RTL
 Adding Orderable Item: FENTANYL INJ, SOLN
 Adding Orderable Item: ACETAMINOPHEN/CODEINE TAB
 Adding Orderable Item: OXYCODONE 5MG/ACETAMINOPHEN 325MG TAB
 Adding Orderable Item: FENTANYL 25MCG/HR PATCH
 Adding Orderable Item: FENTANYL 50MCG/HR PATCH
 Adding Orderable Item: FENTANYL 75MCG/HR PATCH
 Adding Orderable Item: FENTANYL 100MCG/HR PATCH
 Adding Orderable Item: FENTANYL CITRATE LOZENGE
 Adding Orderable Item: BELLADONNA/OPIUM SUPP, RTL
 Adding Orderable Item: ACETAMINOPHEN/HYDROCODONE TAB
 Adding Orderable Item: ACETAMINOPHEN/HYDROCODONE TAB
 Adding Orderable Item: ACETAMINOPHEN/HYDROCODONE ELIXIR
 Adding Orderable Item: BUPRENORPHINE/NALOXONE TAB, SUBLINGUAL
 Adding Orderable Item: BUPRENORPHINE/NALOXONE TAB, SUBLINGUAL
 Adding Orderable Item: BUPRENORPHINE INJ
 Adding Orderable Item: BUTORPHANOL INJ, SOLN
 Adding Orderable Item: MEPERIDINE INJ, SOLN
 Adding Orderable Item: ASPIRIN/BUTALBITAL/CAFFEINE/CODEINE CAP, ORAL
 Adding Orderable Item: CODEINE SOLN, ORAL
 Adding Orderable Item: HYDROMORPHONE SUPP, RTL
 Adding Orderable Item: HYDROMORPHONE TAB
 Adding Orderable Item: HYDROMORPHONE INJ, SOLN
 Adding Orderable Item: FENTANYL INJ, SOLN
 Adding Orderable Item: DROPERIDOL/FENTANYL INJ, SOLN
 Adding Orderable Item: DROPERIDOL/FENTANYL INJ, SOLN
 Adding Orderable Item: MEPERIDINE INJ, SOLN
 Adding Orderable Item: MEPERIDINE INJ, SOLN
 Adding Orderable Item: MEPERIDINE INJ, SOLN
 Adding Orderable Item: ASPIRIN/CODEINE TAB
 Adding Orderable Item: SUFENTANIL INJ, SOLN
 Adding Orderable Item: MORPHINE PF INJ
 Adding Orderable Item: MORPHINE TAB, SA
 Adding Orderable Item: MORPHINE INJ
 Adding Orderable Item: MORPHINE TAB, SA
 Adding Orderable Item: MORPHINE INJ
 Adding Orderable Item: MORPHINE INJ
 Adding Orderable Item: MORPHINE TAB, SA
 Adding Orderable Item: MORPHINE SUPP, RTL
 Adding Orderable Item: MORPHINE INJ
 Adding Orderable Item: MORPHINE INJ
 Adding Orderable Item: MORPHINE SOLN, ORAL
 Adding Orderable Item: MORPHINE SOLN, ORAL
 Adding Orderable Item: MORPHINE TAB, IR
 Adding Orderable Item: MORPHINE INJ
 Adding Orderable Item: REMIFENTANIL INJ, LYPHL
 Adding Orderable Item: MORPHINE TAB, SA
 Adding Orderable Item: MORPHINE SUPP, RTL
 Adding Orderable Item: MORPHINE SOLN, CONC
 Adding Orderable Item: MORPHINE SOLN, CONC
 Adding Orderable Item: MORPHINE TAB, SA

```

Adding Orderable Item: OXYCODONE 5MG/ACETAMINOPHEN 500MG CAP,ORAL
Adding Orderable Item: OXYCODONE 5MG/5ML CUP SOLN,ORAL
Adding Orderable Item: OXYCODONE TAB,SA
Adding Orderable Item: OXYCODONE TAB,SA
Adding Orderable Item: OXYCODONE HCL 20MG/ML (CONC) SOLN,ORAL
Adding Orderable Item: OXYCODONE TAB,SA
Adding Orderable Item: OXYCODONE TAB
Adding Orderable Item: OXYCODONE HCL 5MG/5ML (SOLN) SOLN,ORAL
Adding Orderable Item: OXYCODONE TAB,SA
Adding Orderable Item: BUTORPHANOL INJ,SOLN
Adding Orderable Item: MORPHINE (PCA) INJ
Adding Orderable Item: CODEINE INJ
Adding Orderable Item: MEPERIDINE INJ,SOLN
Adding Orderable Item: NALBUPHINE INJ,SOLN
Adding Orderable Item: ACETAMINOPHEN/CODEINE ELIXIR
Adding Orderable Item: ALPHAPRODINE INJ
Adding Orderable Item: METHADONE SOLN,ORAL
Adding Orderable Item: MEPERIDINE SYRUP
Adding Orderable Item: HYDROMORPHONE INJ,SOLN
Adding Orderable Item: PENTAZOCINE/NALOXONE TAB
Adding Orderable Item: MORPHINE SOLN,ORAL
Select DRUG CLASS: <enter>
Select ORDERABLE ITEM: PENTAZOCINE/NALOXONE TAB //<enter>
Select RULE NAME: SUICIDAL BEHAVIOR
  Are you adding 'SUICIDAL BEHAVIOR' as a new RULE NAME (the 1ST for this REMINDER
ORDERABLE ITEM GROUP)? No// Y (Yes)
  DISPLAY NAME: Suicidal Behavior
  ACTIVE FLAG: 1 YES
  TESTING FLAG: 0 NO
  SEVERITY: m MEDIUM
  RULE DESCRIPTION:
    No existing text
    Edit? NO//
  REMINDER TERM: PATIENT RECORD FLAG          LOCAL
    ...OK? Yes// (Yes)

  TERM EVALUATION STATUS: T TRUE
  ORDER CHECK TEXT:
    No existing text
    Edit? NO// YES

This patient has an active Category II Patient Record Flag for Suicidal Behavior on
file. Please consider the potential for drug-seeking and drug-abusing behavior when
prescribing this medication.

Select RULE NAME: <enter>
Input your edit comments. <enter>
Edit? NO//
Checking for errors

No errors found.

```

3. Create an orderable item rule

```

Select Reminder Orderable Item Group by one of the following:

N: ORDERABLE ITEM GROUP NAME
O: ORDERABLE ITEM
R: REMINDER DEFINITION
T: REMINDER TERM

```


Q: QUIT

Select Reminder Orderable Item Group by: (N/O/R/T/Q): N// O **ORDERABLE ITEM**
Select ORDERABLE ITEMS NAME: **OXYCODONE TAB,SA**

Select a from the following list:

1 HIGH RISK MEDS FOR SUICIDE

Select a reminder orderable item group: (1-1): 1

Select ORDERABLE ITEMS NAME: **<enter>**

Select Reminder Orderable Item Group by one of the following:

N: ORDERABLE ITEM GROUP NAME

O: ORDERABLE ITEM

R: REMINDER DEFINITION

T: REMINDER TERM

Q: QUIT

Select Reminder Orderable Item Group by: (N/O/R/T/Q): N// **QUIT**

OE Add/Edit Reminder Orderable Item Group

OI Reminder Orderable Item Inquiry

OT Reminder Orderable Item Group Test

Select Reminder Orderable Item Group Menu Option: **OI Reminder Orderable Item Inquiry**

Select Reminder Orderable Item Group by one of the following:

N: ORDERABLE ITEM GROUP NAME

O: ORDERABLE ITEM

R: REMINDER DEFINITION

T: REMINDER TERM

Q: QUIT

Select Reminder Orderable Item Group by: (N/O/R/T/Q): N// **ORDERABLE ITEM**

Select ORDERABLE ITEMS NAME: **OXYCODONE TAB,SA**

DEVICE: TELNET PORT Right Margin: 80//

HIGH RISK MEDS FOR SUICIDE

No. 4

Class: LOCAL

Sponsor:

Review Date:

Group Description:

Orderable Item List:

DESIPRAMINE TAB

DOXEPIN SOLN, ORAL

AMITRIPTYLINE TAB

DOXEPIN CAP, ORAL

IMIPRAMINE TAB

CLOMIPRAMINE CAP, ORAL

IMIPRAMINE PAMOATE CAP, ORAL

AMITRIPTYLINE INJ

PROTRIPTYLINE TAB

NORTRIPTYLINE CAP, ORAL

NORTRIPTYLINE HCL 10MG/5ML SOLN,ORAL
 AMOXAPINE TAB
 LORAZEPAM INJ
 OXAZEPAM CAP,ORAL
 DIAZEPAM CAP,SA
 LORAZEPAM TAB
 CHLORDIAZEPOXIDE CAP,ORAL
 CHLORDIAZEPOXIDE INJ
 CLORAZEPATE CAP,ORAL
 DIAZEPAM TAB
 FLURAZEPAM CAP,ORAL
 CLORAZEPATE TAB
 LORAZEPAM SOLN,ORAL
 DIAZEPAM INJ
 TEMAZEPAM CAP,ORAL
 MIDAZOLAM 1MG/ML INJ,SOLN
 MIDAZOLAM 5MG/ML INJ,SOLN
 MIDAZOLAM HCL 2MG/ML SYRUP
 TRIAZOLAM TAB
 ALPRAZOLAM TAB
 PROPOXYPHENE/ACETAMINOPHEN TAB
 MORPHINE INJ
 CODEINE INJ
 CODEINE TAB
 HYDROMORPHONE TAB
 ACETAMINOPHEN/CODEINE ELIXIR
 MEPERIDINE TAB
 METHADONE SOLN,ORAL
 METHADONE TAB
 BELLADONNA/OPIUM SUPP,RTL
 FENTANYL INJ,SOLN
 ACETAMINOPHEN/CODEINE TAB
 OXYCODONE 5MG/ACETAMINOPHEN 325MG TAB
 FENTANYL 25MCG/HR PATCH
 FENTANYL 50MCG/HR PATCH
 FENTANYL 75MCG/HR PATCH
 FENTANYL 100MCG/HR PATCH
 FENTANYL CITRATE LOZENGE
 ACETAMINOPHEN/HYDROCODONE TAB
 ACETAMINOPHEN/HYDROCODONE ELIXIR
 BUPRENORPHINE/NALOXONE TAB,SUBLINGUAL
 BUPRENORPHINE INJ
 BUTORPHANOL INJ,SOLN
 MEPERIDINE INJ,SOLN
 ASPIRIN/BUTALBITAL/CAFFEINE/CODEINE CAP,ORAL
 CODEINE SOLN,ORAL
 HYDROMORPHONE SUPP,RTL
 HYDROMORPHONE INJ,SOLN
 DROPERIDOL/FENTANYL INJ,SOLN
 ASPIRIN/CODEINE TAB
 SUFENTANIL INJ,SOLN
 MORPHINE PF INJ
 MORPHINE TAB,SA
 MORPHINE SUPP,RTL
 MORPHINE SOLN,ORAL
 MORPHINE TAB,IR
 REMIFENTANIL INJ,LYPHL
 MORPHINE SOLN,CONC
 OXYCODONE 5MG/ACETAMINOPHEN 500MG CAP,ORAL
 OXYCODONE 5MG/5ML CUP SOLN,ORAL
 OXYCODONE TAB,SA
 OXYCODONE HCL 20MG/ML (CONC) SOLN,ORAL
 OXYCODONE TAB

OXYCODONE HCL 5MG/5ML (SOLN) SOLN,ORAL
MORPHINE (PCA) INJ
NALBUPHINE INJ,SOLN
ALPHAPRODINE INJ
MEPERIDINE SYRUP
PENTAZOCINE/NALOXONE TAB

Reminder Rule List:

Rule Name: SUICIDAL BEHAVIOR
Display Name: Suicidal Behavior
Active Flag: Yes
Testing Flag: No
Severity: Medium

Reminder Term: PATIENT RECORD FLAG Reminder Term Status: TRUE

Select ORDERABLE ITEMS NAME:

Select Reminder Orderable Item Group by one of the following:

N: ORDERABLE ITEM GROUP NAME
O: ORDERABLE ITEM
R: REMINDER DEFINITION
T: REMINDER TERM
Q: QUIT

Select Reminder Orderable Item Group by: (N/O/R/T/Q): N// **QUIT**

OE Add/Edit Reminder Orderable Item Group
OI Reminder Orderable Item Inquiry
OT Reminder Orderable Item Group Test

You have PENDING ALERTS

Enter "VA to jump to VIEW ALERTS option

Select Reminder Orderable Item Group Menu Option: **OT** **Reminder Orderable Item Group**
Test

Select Patient: **SEVENTY, INPATIENT** 3-9-45 666000870 NO NSC VETERAN

>>> Active Patient Record Flag(s):
<SUICIDE> CATEGORY II

Do you wish to view active patient record flag details? Yes// **N** **(No)**

Select Orderable Item: **OXYCODONE TAB, SA**

Production Rules:

No rules with a severity of Low found.

Medium Severity Results:

Suicidal Behavior

INTERNAL: Reminder Term: PATIENT RECORD FLAG Status: True

This patient has an active Category II Patient Record Flag for Suicidal Behavior on file. Please consider the potential for drug-seeking and drug-abusing behavior when prescribing this medication.

No rules with a severity of High found.

No Testing Rules found.

OE Add/Edit Reminder Orderable Item Group

OI	Reminder Orderable Item Inquiry
OT	Reminder Orderable Item Group Test

4. Open CPRS and switch to patient: SEVENTY,INPATIENT

- Place an order for OXYCODONE TAB,SA
- View the order check
- Accept the order check
- Go to File|Review Sign/Changes
- View the order check window. Notice no justification is needed.

5. Setup for a definition rule - Add/Edit Reminder Orderable Item Group

Select Reminder Orderable Item Group by one of the following:

```

N: ORDERABLE ITEM GROUP NAME
O: ORDERABLE ITEM
R: REMINDER DEFINITION
T: REMINDER TERM
Q: QUIT

```

Select Reminder Orderable Item Group by: (N/O/R/T/Q): N// **ORDERABLE ITEM GROUP NAME**

Select Reminder Order Check Rule: **HIGH RISK MEDS FOR SUICIDE**

GROUP NAME: HIGH RISK MEDS FOR SUICIDE Replace

CLASS: LOCAL// **<enter>**

SPONSOR: **<enter>**

REVIEW DATE: **<enter>**

DESCRIPTION:

No existing text

Edit? NO// **<enter>**

Add Orderable Items by Drug Class? **N// O**

Select ORDERABLE ITEM: PENTAZOCINE/NALOXONE TAB // **<enter>**

Select RULE NAME: SUICIDAL BEHAVIOR// **<enter>**

RULE NAME: SUICIDAL BEHAVIOR// **<enter>**

DISPLAY NAME: Suicidal Behavior// **<enter>**

ACTIVE FLAG: YES// **<enter>**

TESTING FLAG: NO// **<enter>**

SEVERITY: MEDIUM// **h HIGH**

RULE DESCRIPTION:

No existing text

Edit? NO//

REMINDER TERM: PATIENT RECORD FLAG// **@**

SURE YOU WANT TO DELETE? **y (Yes)**

REMINDER DEFINITION: **PATIENT RECORD FLAG DEFINITION** LOCAL

DEFINITION EVALUATION STATUS: // **APPLICABLE**

OUTPUT TEXT: // **?**

Select what text should appear in the order check window.

Choose from:

O ORDER CHECK TEXT ONLY

D DEFINITION TEXT ONLY

B BOTH ORDER CHECK AND DEFINITION TEXT

OUTPUT TEXT: **BOTH ORDER CHECK AND DEFINITION TEXT**

//

ORDER CHECK TEXT:

This patient has an active Category II Patient Record Flag for Suicidal Behavior on file. Please consider the potential for drug-seeking and drug-abusing behavior when prescribing this medication.

```

Edit? NO// <enter>
Select RULE NAME: <enter>
Input your edit comments.
Edit? NO//
Checking for errors

No errors found.

Select Reminder Orderable Item Group by one of the following:

      N: ORDERABLE ITEM GROUP NAME
      O: ORDERABLE ITEM
      R: REMINDER DEFINITION
      T: REMINDER TERM
      Q: QUIT

Select Reminder Orderable Item Group by: (N/O/R/T/Q): N// QUIT

OE      Add/Edit Reminder Orderable Item Group
OI      Reminder Orderable Item Inquiry
OT      Reminder Orderable Item Group Test

```

6. Switch to CPRS and place an order for OXYCODONE TAB,SA

- Go to File|Review/Sign Changes
- The session order dialog contains the justification prompt.

7. Additional functionality for reminder order checks – Exchanging the Reminder Orderable Item Group

```

CF      Reminder Computed Finding Management ...
RM      Reminder Definition Management ...
SM      Reminder Sponsor Management ...
TXM     Reminder Taxonomy Management ...
TRM     Reminder Term Management ...
LM      Reminder Location List Management ...
RX      Reminder Exchange
RT      Reminder Test
OS      Other Supporting Menus ...
INFO    Reminder Information Only Menu ...
DM      Reminder Dialog Management ...
CP      CPRS Reminder Configuration ...
RP      Reminder Reports ...
MST     Reminders MST Synchronization Management ...
PL      Reminder Patient List Menu ...
PAR     Reminder Parameters ...
ROI     Reminder Orderable Item Group Menu ...
XM      Reminder Extract Menu ...
GEC     GEC Referral Report

You have PENDING ALERTS
      Enter "VA to jump to VIEW ALERTS option

Select Reminder Managers Menu Option: RX Reminder Exchange

```

Exchange File Entries.

Item	Entry	Source	Date Packed
1	ACS MEDICATION ER NOTE	CORRIGAN@TAMPA VAMC	05/10/2004@22:51
2	ACS NURSING ER-1010 NOTE	CORRIGAN@TAMPA VAMC	05/10/2004@22:40
3	ACS PHYSICIAN ER NOTE	CORRIGAN@TAMPA VAMC	05/10/2004@22:52
4	ADMISSION DATABASE	PATIRE@MINNEAPOLIS	02/02/2004@16:52
5	AGP TRANSPORT OF TEMPLATE FIELD	HAWSEY@SALT LAKE CI	10/29/2009@12:21
6	BDI II RESULT GROUP	PULEO@SALT LAKE CI	04/13/2004@15:53
7	BLANK 3	VOLPP@NORTHERN CAL	04/21/2006@08:10
8	BLANK 5	VOLPP@NORTHERN CAL	04/23/2006@10:01
9	BO-RESTRAINT/SECLUSION ACUTE	WEAVER@BOSTON HCS V	05/05/2004@09:22
+ Next Screen - Prev Screen ?? More Actions >>>			
CFE	Create Exchange File Entry	IH	Installation History
CHF	Create Host File	LHF	Load Host File
CMM	Create MailMan Message	LMM	Load MailMan Message
DFE	Delete Exchange File Entry	LR	List Reminder Definitions
IFE	Install Exchange File Entry	RI	Reminder Definition Inquiry[J
Select Action: Next Screen// CFE Create Exchange File Entry			

Select from the following reminder files:

- 1 REMINDER COMPUTED FINDINGS
- 2 REMINDER COUNTING GROUP
- 3 REMINDER DEFINITION
- 4 REMINDER DIALOG
- 5 REMINDER EXTRACT COUNTING RULE
- 6 REMINDER EXTRACT DEFINITION
- 7 REMINDER LIST RULE
- 8 REMINDER LOCATION LIST
- 9 REMINDER SPONSOR
- 10 REMINDER TAXONOMY
- 11 REMINDER TERM
- 12 REMINDER ORDERABLE ITEM GROUP

Select a file: (1-12): **12**Select REMINDER ORDERABLE ITEM GROUP GROUP NAME: **HIGH RISK MEDS FOR SUICIDE**

Enter another one or just press enter to go back to file selection.

Select REMINDER ORDERABLE ITEM GROUP GROUP NAME:

Select from the following reminder files:

- 1 REMINDER COMPUTED FINDINGS
- 2 REMINDER COUNTING GROUP
- 3 REMINDER DEFINITION
- 4 REMINDER DIALOG
- 5 REMINDER EXTRACT COUNTING RULE
- 6 REMINDER EXTRACT DEFINITION
- 7 REMINDER LIST RULE
- 8 REMINDER LOCATION LIST
- 9 REMINDER SPONSOR
- 10 REMINDER TAXONOMY
- 11 REMINDER TERM
- 12 REMINDER ORDERABLE ITEM GROUP

Select a file: (1-12):

Enter the Exchange File entry name: HIGH RISK MEDS FOR SUICIDE

Replace

- Enter a description of the REMINDER ORDERABLE ITEM GROUP you are packing.
- Enter keywords or phrases to help index the entry you are packing.
- Separate the keywords or phrases on each line with commas.

Packing components ...

Adding routine PXRMPRF
 Adding ORDERABLE ITEMS PENTAZOCINE/NALOXONE TAB , IEN=2455
 Adding ORDERABLE ITEMS MEPERIDINE SYRUP , IEN=1740
 Adding ORDERABLE ITEMS ALPHAPRODINE INJ , IEN=2143
 Adding ORDERABLE ITEMS NALBUPHINE INJ,SOLN , IEN=1784
 Adding ORDERABLE ITEMS MORPHINE (PCA) INJ , IEN=4780
 Adding ORDERABLE ITEMS OXYCODONE HCL 5MG/5ML (SOLN) SOLN,ORAL , IEN=4691
 Adding ORDERABLE ITEMS OXYCODONE TAB , IEN=4690
 Adding ORDERABLE ITEMS OXYCODONE HCL 20MG/ML (CONC) SOLN,ORAL , IEN=4689
 Adding ORDERABLE ITEMS OXYCODONE TAB,SA , IEN=4688
 Adding ORDERABLE ITEMS OXYCODONE 5MG/5ML CUP SOLN,ORAL , IEN=4687
 Adding ORDERABLE ITEMS OXYCODONE 5MG/ACETAMINOPHEN 500MG CAP,ORAL , IEN=4686
 Adding ORDERABLE ITEMS MORPHINE SOLN,CONC , IEN=4506
 Adding ORDERABLE ITEMS REMIFENTANIL INJ,LPHL , IEN=4491
 Adding ORDERABLE ITEMS MORPHINE TAB,IR , IEN=4486
 Adding ORDERABLE ITEMS MORPHINE SOLN,ORAL , IEN=1779
 Adding ORDERABLE ITEMS MORPHINE SUPP,RTL , IEN=4485
 Adding ORDERABLE ITEMS MORPHINE TAB,SA , IEN=4484
 Adding ORDERABLE ITEMS MORPHINE PF INJ , IEN=4483
 Adding ORDERABLE ITEMS SUFENTANIL INJ,SOLN , IEN=4327
 Adding ORDERABLE ITEMS ASPIRIN/CODEINE TAB , IEN=1392
 Adding ORDERABLE ITEMS DROPERIDOL/FENTANYL INJ,SOLN , IEN=1574
 Adding ORDERABLE ITEMS HYDROMORPHONE INJ,SOLN , IEN=1662
 Adding ORDERABLE ITEMS HYDROMORPHONE SUPP,RTL , IEN=4169
 Adding ORDERABLE ITEMS CODEINE SOLN,ORAL , IEN=4103
 Adding ORDERABLE ITEMS ASPIRIN/BUTALBITAL/CAFFEINE/CODEINE CAP,ORAL , IEN=4102
 Adding ORDERABLE ITEMS MEPERIDINE INJ,SOLN , IEN=1739
 Adding ORDERABLE ITEMS BUTORPHANOL INJ,SOLN , IEN=1436
 Adding ORDERABLE ITEMS BUPRENORPHINE INJ , IEN=3967
 Adding ORDERABLE ITEMS BUPRENORPHINE/NALOXONE TAB,SUBLINGUAL , IEN=3966
 Adding ORDERABLE ITEMS ACETAMINOPHEN/HYDROCODONE ELIXIR , IEN=3964
 Adding ORDERABLE ITEMS ACETAMINOPHEN/HYDROCODONE TAB , IEN=3962
 Adding ORDERABLE ITEMS FENTANYL CITRATE LOZENGE , IEN=3721
 Adding ORDERABLE ITEMS FENTANYL 100MCG/HR PATCH , IEN=3720
 Adding ORDERABLE ITEMS FENTANYL 75MCG/HR PATCH , IEN=3719
 Adding ORDERABLE ITEMS FENTANYL 50MCG/HR PATCH , IEN=3718
 Adding ORDERABLE ITEMS FENTANYL 25MCG/HR PATCH , IEN=3717
 Adding ORDERABLE ITEMS OXYCODONE 5MG/ACETAMINOPHEN 325MG TAB , IEN=4685
 Adding ORDERABLE ITEMS ACETAMINOPHEN/CODEINE TAB , IEN=1346
 Adding ORDERABLE ITEMS FENTANYL INJ,SOLN , IEN=1601
 Adding ORDERABLE ITEMS BELLADONNA/OPIUM SUPP,RTL , IEN=1410
 Adding ORDERABLE ITEMS METHADONE TAB , IEN=1750
 Adding ORDERABLE ITEMS METHADONE SOLN,ORAL , IEN=1749
 Adding ORDERABLE ITEMS MEPERIDINE TAB , IEN=1741
 Adding ORDERABLE ITEMS ACETAMINOPHEN/CODEINE ELIXIR , IEN=1345
 Adding ORDERABLE ITEMS HYDROMORPHONE TAB , IEN=1663
 Adding ORDERABLE ITEMS CODEINE TAB , IEN=1497
 Adding ORDERABLE ITEMS CODEINE INJ , IEN=1496
 Adding ORDERABLE ITEMS MORPHINE INJ , IEN=1778
 Adding ORDERABLE ITEMS PROPOXYPHENE/ACETAMINOPHEN TAB , IEN=2478
 Adding ORDERABLE ITEMS ALPRAZOLAM TAB , IEN=1360
 Adding ORDERABLE ITEMS TRIAZOLAM TAB , IEN=1987
 Adding ORDERABLE ITEMS MIDAZOLAM HCL 2MG/ML SYRUP , IEN=4435
 Adding ORDERABLE ITEMS MIDAZOLAM 5MG/ML INJ,SOLN , IEN=4434
 Adding ORDERABLE ITEMS MIDAZOLAM 1MG/ML INJ,SOLN , IEN=4430
 Adding ORDERABLE ITEMS TEMAZEPAM CAP,ORAL , IEN=1945
 Adding ORDERABLE ITEMS DIAZEPAM INJ , IEN=1542
 Adding ORDERABLE ITEMS LORAZEPAM SOLN,ORAL , IEN=4206
 Adding ORDERABLE ITEMS CLORAZEPATE TAB , IEN=4088
 Adding ORDERABLE ITEMS FLURAZEPAM CAP,ORAL , IEN=1621
 Adding ORDERABLE ITEMS DIAZEPAM TAB , IEN=1543
 Adding ORDERABLE ITEMS CLORAZEPATE CAP,ORAL , IEN=1489
 Adding ORDERABLE ITEMS CHLORDIAZEPOXIDE INJ , IEN=1464

```

Adding ORDERABLE ITEMS CHLORDIAZEPOXIDE CAP,ORAL , IEN=1463
Adding ORDERABLE ITEMS LORAZEPAM TAB , IEN=1726
Adding ORDERABLE ITEMS DIAZEPAM CAP,SA , IEN=3554
Adding ORDERABLE ITEMS OXAZEPAM CAP,ORAL , IEN=3518
Adding ORDERABLE ITEMS LORAZEPAM INJ , IEN=1725
Adding ORDERABLE ITEMS AMOXAPINE TAB , IEN=1381
Adding ORDERABLE ITEMS NORTRIPTYLINE HCL 10MG/5ML SOLN,ORAL , IEN=4606
Adding ORDERABLE ITEMS NORTRIPTYLINE CAP,ORAL , IEN=4605
Adding ORDERABLE ITEMS PROTRIPTYLINE TAB , IEN=4458
Adding ORDERABLE ITEMS AMITRIPTYLINE INJ , IEN=1377
Adding ORDERABLE ITEMS IMIPRAMINE PAMOATE CAP,ORAL , IEN=4179
Adding ORDERABLE ITEMS CLOMIPRAMINE CAP,ORAL , IEN=4085
Adding ORDERABLE ITEMS IMIPRAMINE TAB , IEN=1673
Adding ORDERABLE ITEMS DOXEPIN CAP,ORAL , IEN=1571
Adding ORDERABLE ITEMS AMITRIPTYLINE TAB , IEN=1378
Adding ORDERABLE ITEMS DOXEPIN SOLN,ORAL , IEN=3590
Adding ORDERABLE ITEMS DESIPRAMINE TAB , IEN=1523
Adding REMINDER COMPUTED FINDINGS VA-ACTIVE PATIENT RECORD FLAGS, IEN=65
Adding REMINDER TERM PATIENT RECORD FLAG, IEN=136
Adding REMINDER DEFINITION PATIENT RECORD FLAG DEFINITION, IEN=61
Adding REMINDER ORDERABLE ITEM GROUP HIGH RISK MEDS FOR SUICIDE, IEN=4
Packing is complete.

```

Clinical Reminder Exchange		Mar 02, 2010@16:25:07		Page: 1 of 21	
HIGH RISK MEDS FOR SUICIDE was saved in the Exchange File.					
Item	Entry	Source	Date Packed		
1	ACS MEDICATION ER NOTE	CORRIGAN@TAMPA VAMC	05/10/2004@22:51		
2	ACS NURSING ER-1010 NOTE	CORRIGAN@TAMPA VAMC	05/10/2004@22:40		
3	ACS PHYSICIAN ER NOTE	CORRIGAN@TAMPA VAMC	05/10/2004@22:52		
4	ADMISSION DATABASE	PATIRE@MINNEAPOLIS	02/02/2004@16:52		
5	AGP TRANSPORT OF TEMPLATE FIELD	HAWSEY@SALT LAKE CI	10/29/2009@12:21		
6	BDI II RESULT GROUP	PULEO@SALT LAKE CI	04/13/2004@15:53		
7	BLANK 3	VOLPP@NORTHERN CAL	04/21/2006@08:10		
8	BLANK 5	VOLPP@NORTHERN CAL	04/23/2006@10:01		
9	BO-RESTRAINT/SECLUSION ACUTE	WEAVER@BOSTON HCS V	05/05/2004@09:22		
<div> <div>+ Next Screen</div> <div>- Prev Screen</div> <div>?? More Actions</div> <div>>>></div> </div>					
CFE	Create Exchange File Entry	IH	Installation History		
CHF	Create Host File	LHF	Load Host File		
CMM	Create MailMan Message	LMM	Load MailMan Message		
DFE	Delete Exchange File Entry	LR	List Reminder Definitions		
IFE	Install Exchange File Entry	RI	Reminder Definition Inquiry[J		
Select Action: Next Screen// SL SL					
Search for: HIGH					
Find Next 'HIGH'? Yes// NO					
CFE	Create Exchange File Entry	IH	Installation History		
CHF	Create Host File	LHF	Load Host File		
CMM	Create MailMan Message	LMM	Load MailMan Message		
DFE	Delete Exchange File Entry	LR	List Reminder Definitions		
IFE	Install Exchange File Entry	RI	Reminder Definition Inquiry[J		
Select Action: Next Screen// 22					
Select Action: : (IFE/DFE/IH): IFE// Install Exchange File Entry					
Exchange File Components		Mar 02, 2010@16:25:20		Page: 1 of 7	
Component		Category		Exists	
Source: CPRSPROGRAMMER, ONE at ZZ ALBANY-PRRTP					
Date Packed: 03/02/2010@16:24:57					
Package Version: 2.0P17					
Description:					

Keywords:

Components:

ROUTINE

1	PXRMPRF	X
---	---------	---

ORDERABLE ITEMS

PENTAZOCINE/NALOXONE TAB	X
--------------------------	---

MEPERIDINE SYRUP	X
------------------	---

Enter ?? for more actions	>>>
---------------------------	-----

Select Action: Next Screen// Q

D ^XUP

Setting up programmer environment

This is a TEST account.

Terminal Type set to: C-VT320

Select OPTION NAME: **PSS EDIT ORDERABLE ITEMS** Edit Orderable Items

Edit Orderable Items

This option enables you to edit Orderable Item names, Formulary status, drug text, Inactive Dates, and Synonyms.

Select PHARMACY ORDERABLE ITEM NAME: **CHLORDIAZEPOXIDE CAP,ORAL**

Orderable Item -> CHLORDIAZEPOXIDE

Dosage Form -> CAP,ORAL

List all Drugs/Additives/Solutions tied to this Orderable Item? YES// [H[J[2J[H

Orderable Item -> CHLORDIAZEPOXIDE

Dosage Form -> CAP,ORAL

Dispense Drugs:

CHLORDIAZEPOXIDE HCL 10MG CAP

CHLORDIAZEPOXIDE HCL 25MG CAP

CHLORDIAZEPOXIDE HCL 5MG CAP

Are you sure you want to edit this Orderable Item? NO// **YES**

Now editing Orderable Item:

CHLORDIAZEPOXIDE CAP,ORAL

Orderable Item Name: CHLORDIAZEPOXIDE// <enter>

This Orderable Item is Formulary.

This Orderable Item is marked as a Non-VA Med.

Select OI-DRUG TEXT ENTRY: <enter>

INACTIVE DATE: **T** **MAR 02, 2010**

DAY (nD) or DOSE (nL) LIMIT: <enter>

MED ROUTE: ORAL (BY MOUTH)// <enter>

SCHEDULE TYPE: <enter>

SCHEDULE: <enter>

PATIENT INSTRUCTIONS: <enter>

```

There are active drugs,
matched to this Pharmacy Orderable Item.

Do you want to inactivate all Drugs/Additives/Solutions
that are matched to this Orderable Item?: (Y/N/L): N// YES
Please wait..

Finished!

Select SYNONYM: <enter>

Select PHARMACY ORDERABLE ITEM NAME: <enter>
CPRS285A4:CPRS28>D ^XUP

Setting up programmer environment
This is a TEST account.

Terminal Type set to: C-VT320

You have 1 new message.
Select OPTION NAME: MAILMAN MENU  XMUSER      MailMan Menu

VA MailMan 8.0 service for PULEO.ANTHONY@CPRS28.FO-SLC.MED.VA.GOV
You last used MailMan: 02/11/10@12:32
You have 1 new message.

    NML    New Messages and Responses
    RML    Read/Manage Messages
    SML    Send a Message
           Query/Search for Messages
    AML    Become a Surrogate (SHARED,MAIL or Other)
           Personal Preferences ...
           Other MailMan Functions ...
           Help (User/Group Info., etc.) ...

You have PENDING ALERTS
    Enter  "VA to jump to VIEW ALERTS option

<CPM> Select MailMan Menu Option: RNML  New Messages and Responses
IN Basket Message: 44// Subj: Orderable Item Updates  [#66074] 03/02/10@16:37  4 lines
From: Clinical Reminders Support  In 'IN' basket.   Page 1  *New*
-----

CHLORDIAZEPOXIDE CAP,ORAL  was inactivated
  it is used in the following Orderable Item Groups
    HIGH RISK MEDS FOR SUICIDE

Enter message action (in IN basket): Ignore//

```

Appendix C: Design Tips for VA Order Checks

The following is taken from a PowerPoint presentation by Alissa Russ, PhD, Research Scientist, Roudebush VA HSR&D CIEBP & Regenstrief Institute, Inc., Adjunct Assistant Professor, Purdue University College of Pharmacy

Human Factors Engineering

- **Definition:** **design** of technology (i.e., order checks), processes, and work systems so they are compatible with **human** cognitive and physical **capabilities and limitations**
- Human factors fit the system to the human, rather than making the human try and adapt.

Presentation Sources

-Scientific literature

- Including VA studies

-Russ, et al: VA studies on order checks:

- Qualitative study
 - Field observations/interviews of 30 outpatient VA prescribers during their normal work;
 - This included 320 order checks across 146 patients
- Ongoing research to redesign order checks and conduct usability evaluations with VA prescribers
 - Roudebush VA Human-Computer Interaction Lab
 - HSR&D pilot grant #PPO 09-298-1

Presentation Outline

1. Purpose of order checks
2. Problems with order checks
3. Strategies to make order checks better for prescribers and patient safety

I. Purpose of Order Checks

1. Warn prescribers about safety issues before orders are placed/meds are dispensed
2. Reduce preventable adverse events (ADEs)
 - a. Institute of Medicine: 1.5+ million *preventable* adverse drug events occur each year in the U.S.
 - b. Alerts can change prescriber behavior and medication orders

(Mills, 2008 (VA study); Schedlbauer 2009)

II. Problems with Order Checks

1. Alert Fatigue

- Prescriber becomes desensitized

- Important alerts can be accidentally missed
- Contributing factors:
 - **Too much text** displayed on alert interface
 - **Alert trigger rules** are too general/broad
 - Overuse of other types of pop-up windows
 - Telling people to ‘pay more attention to order checks’ is NOT a solution!

VA Research Studies

- 55% VA Clinicians: Too many inappropriate order checks (Survey: Glassman 2002)
- Only 1 in every 9 (11%) order checks that did not involve topical/vaccine/inhaler was deemed useful by clinicians (Spina 2005)

Alert Fatigue (Russ et al)

“Truthfully, I am so overwhelmed by the numerousness of the system, that I ignore most of them and don’t look at them” – MD

- Evidence of alert fatigue from all types of prescribers

2. Order Check specificity

“[Often] We get an alert, but it’s not relevant for that specific patient. It might be relevant for the general patient population, but it’s safe for this patient.”

- MD

Example

MD is renewing [signing] venlafaxine.

Order check: ‘Previous adverse reaction to antidepressants’

Response:

MD to Pt: How long have you been on venlafaxine?

Pt 1: At least 5 years.

MD: Pt 1 has been on venlafaxine for 5 years now,
and it’s still coming up!

MD types in override reason and writes:

Has been on venlafaxine for 5 yrs now.

3. Too Much Information

“I want a brief explanation of the problem....it needs to be 10 words or less. If there’s too much...then it’s worthless/not helpful.”

- physician

4. Insufficient Interface Design

- 73% VA clinicians
 - want to see management alternatives/advice on specific actions to take (Ko 2007)

- 21 out of 30 VA prescribers in qualitative study expressed confusion about:
 - What triggered the order check
 - potential problem/harm to the patient
 - (Russ, 2009)

5. Problematic technical terms

Order Checking

Previous adverse reaction to: PENICILLIN (LOCAL)

Accept Order Cancel Order

Physician response:

“That says ‘penicillin local’. Does that mean a local reaction?”

Order Checking

Previous adverse reaction to: PENICILLIN (LOCAL)

Accept Order Cancel Order

MD: “I do not know what that means”.

4. Ambiguous Warnings

Order Checking

(1 of 1) SIGNIFICANT drug-drug interaction: AMILORIDE & LISINOPRIL (AMILORIDE TAB 5MG TAKE TWO TABLETS ORALLY EVERY DAY [PENDING])

Accept Order Cancel Order Drug Interaction Monograph

VA MD: “It doesn’t tell me what the interaction is. I am guessing it’s hyperkalemia.”

[Obs: So you think the interaction is hyperkalemia?]

MD: “That’s my *guess*.”

III. Order Check Design Strategies

Questions to ask BEFORE creating new order checks:

1. Is this problem addressed by any of the other available order checks?
 - Adding a 2nd won't help
2. Is an order check already available, but just not set to "on" by the facility/end-user?
 - Maybe one exists, but it's just set to 'off'
3. Is there another way to address this issue without adding a new order check?
 - Warnings are a weak safety measure
4. What safety evidence from the facility supports the need for this order check?
 - How strong is this evidence?
 - How severe is the potential risk to the patient?
5. Under what circumstances will the order check NOT apply to the patient or provider?
 - Very rare that an order check will always be applicable
 - Consult with prescribers to help answer this question
 - Identify ways to improve the order check rules/specificity to decrease inapplicable alerts

Reduce Alert Fatigue

- a. Minimize number of order checks
- b. Create specific order check rules
 - Use to trigger: EHR data, lab data, patient gender, age, etc
- c. Minimize text on order check interface
 - Fragment descriptors; NOT complete sentences
- d. Reduce use of other types of pop-ups

Interface wording

- a. Use short, familiar words:
 - words common across MDs/NPs/pharmacists
 - avoid abbreviations
 - avoid technical IT terms
- b. Use as little text as necessary
 - fragments, not full sentences
 - remove unnecessary connector words ('the, is' etc)
 - separate line for each statement
- c. Be explicit! (e.g., 'teratogenic' vs. 'dangerous drug')

Interface Format

- a. Most important statement first
- b. Use ALL CAPS sparingly (~1- 2 words total)

- c. Use white space to separate different sets of statements

Interface Content: Warning Design Guidelines

- a. Present essential data the prescriber needs to make a decision (EHR lab values, etc)

Be explicit

Instead of this:

Dangerous Drug
Patient Could be Harmed
Avoid Prescribing this Drug

Something more like this:

Lisinopril is teratogenic
Patient pregnant 4/30/11
Consider prescribing X instead

- b. Four basic components (Phansalkar 2010; Wogalter, Human Factors Handbook 2006)

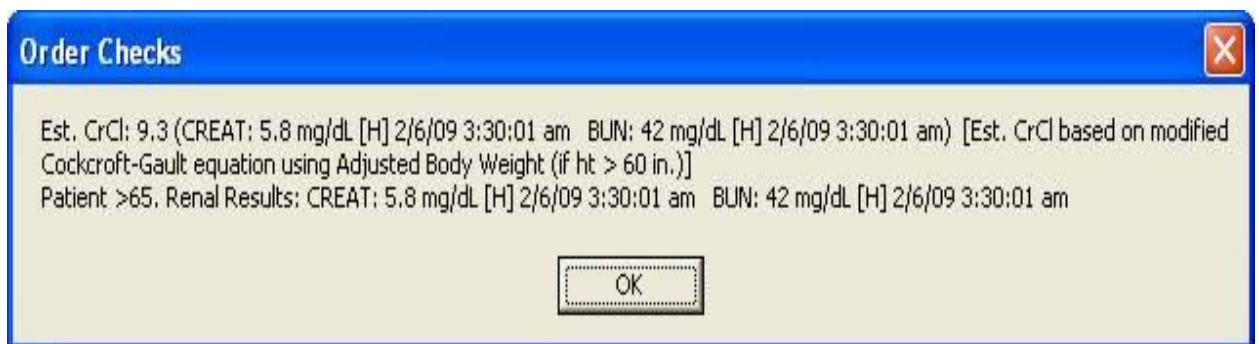
- A signal word: capture attention/indicate priority
- The hazard itself: reason for order check
- Instructions: what should prescriber do?
- Consequences: harm to the patient

- b. Can re-order components to put most important information first

- c. Don't include information that is obvious (e.g., patient death could result from this allergy)

Example 1:

How would you improve this interface design?



- Problems with design of order check:
- Not presented in fragmented text
- 2 order checks presented, but not clearly separated/no white space btwn
- Redundant info/too much info

- Extraneous information (hrs/mins)
- No signal word at top to indicate the problem

Example Redesign

Order Checks

Low Creatinine Clearance! Pt > 65

Est CrCl*: 9.3 mL/min

BUN: [H] 42 mg/dL 2/6/09

CREAT: [H] 5.8 mg/dL 2/6/09

*modified Cockcroft-Gault; adjusted body weight (if ht > 60 in)

OK

Example 2

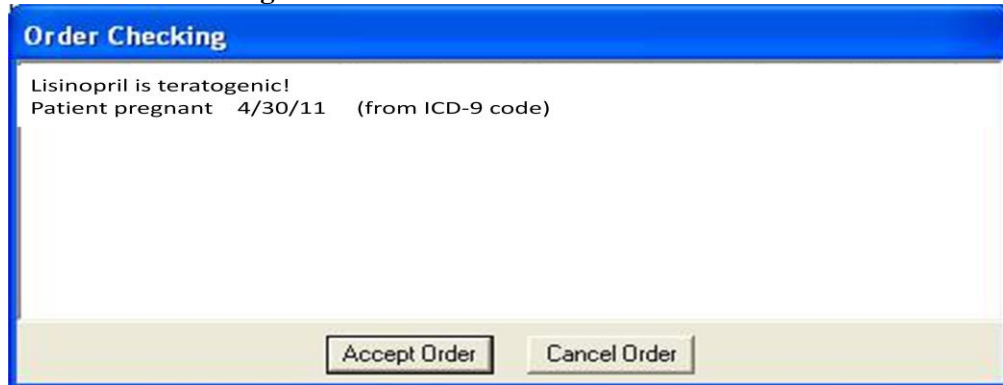
- Your VAMC has asked you to implement a new order check for lisinopril. This medication is contraindicated for pregnant patients and can have detrimental effects for the baby if taken (lisinopril is teratogenic).
1. What programming rules would you use to create this order check?
 2. How would you design the interface?

Order Checking

Duplicate drug order: Hold LISINOPRIL TAB 20MG TAKE ONE TABLET ORALLY EVERY DAY FOR HIGH BLOOD PRESSURE [HOLD]

Accept Order Cancel Order

Order Check Redesign



The screenshot shows a window titled "Order Checking" with a blue header. Inside the window, the text reads: "Lisinopril is teratogenic!" followed by "Patient pregnant 4/30/11 (from ICD-9 code)". At the bottom of the window, there are two buttons: "Accept Order" and "Cancel Order".

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