

Department of Veterans Affairs

Mental Health Clinical Reminders Dialog Templates

System Design Document Patch PXRM*2*42



January, 2014

Version 1.3

Revision History

Date	Version	Description	Author
01/15/2014	1.3	Updated to reflect Increment 4 Deliverables Patch PXRМ*2*42	(NAME REDACTED)
04/04/2013	1.2	Updated to reflect Increment 3 Deliverables Patch PXRМ*2.0*32	(NAME REDACTED)
07/24/2012	1.1	Updated to reflect Increment 1 Deliverables Patch PXRМ*2.0*29	(NAME REDACTED)
06/30/2012	1.0	Initial version	(NAME REDACTED)

Contents

<u>Department of Veterans Affairs</u>	i
<u>1 Introduction</u>	4
<u>1.1 Purpose of this document</u>	4
<u>1.2 Identification</u>	4
<u>1.3 Scope</u>	4
<u>1.4 Relationship to Other Plans</u>	6
<u>1.5 Methodology, Tools, and Techniques</u>	6
<u>1.6 Policies, Directives and Procedures</u>	7
<u>1.7 Constraints</u>	7
<u>1.8 Design Trade-offs</u>	7
<u>1.9 User Characteristics</u>	7
<u>1.9.1 User Problem Statement</u>	7
<u>1.9.2 User Objectives</u>	7
<u>2 Background</u>	9
<u>2.1 Overview of the System</u>	10
<u>2.2 Overview of the Business Process</u>	10
<u>2.3 Business Benefits</u>	11
<u>2.4 Assumptions and Constraints</u>	12
<u>2.4.1 Design Assumptions</u>	12
<u>2.4.2 Design Constraints</u>	12
<u>2.5 Overview of the Significant Requirements</u>	12
<u>2.5.1 Overview of Significant Functional Requirements</u>	12
<u>2.5.2 Functional Workload and Functional Performance Requirements</u> ...	13
<u>Table 7 Workload and Performance Requirements</u>	13
<u>2.5.3 Overview of the Technical Requirements</u>	15
<u>2.5.4 Overview of the Security or Privacy Requirements</u>	15
<u>2.5.5 System Criticality and High Availability Requirements</u>	15
<u>2.5.6 Special Device Requirements</u>	15
<u>2.6 Legacy System Retirement</u>	15
<u>3 Conceptual Design</u>	15
<u>3.1 Conceptual Application Design</u>	15
<u>3.1.1 Application Context</u>	15
<u>3.1.2 High Level Application Design</u>	16
<u>3.1.3 Application Location</u>	16
<u>3.1.4 Application Users</u>	16
<u>3.2 Conceptual Data Design</u>	17
<u>3.2.1 Project Conceptual Data Model</u>	17

3.2.2	<u>Database Information</u>	17
3.3	<u>Conceptual Infrastructure Design</u>	18
3.3.1	<u>System Criticality and High Availability</u>	18
3.3.2	<u>Special Technology</u>	18
3.3.3	<u>Technology Locations</u>	18
3.3.4	<u>Conceptual Infrastructure Diagram</u>	18
4	<u>System Architecture</u>	18
4.1	<u>Hardware Architecture</u>	19
4.2	<u>Software Architecture</u>	19
4.3	<u>Communications Architecture</u>	19
5	<u>Data Design</u>	19
5.1	<u>Database Management System Files</u>	19
5.2	<u>Non-Database Management System Files</u>	20
6	<u>Detailed Design</u>	20
6.1	<u>Hardware Detailed Design</u>	20
6.2	<u>Software Detailed Design</u>	20
6.2.1	<u>Field Definition Information</u>	20
6.2.2	<u>Module - MENTAL HEALTH CLINICAL REMINDER</u>	21
6.3	<u>Communications Detailed Design</u>	29
7	<u>External Interface Design</u>	29
7.1	<u>Interface Architecture</u>	29
7.2	<u>Interface Detailed Design</u>	29
8	<u>Human-Machine Interface</u>	29
8.1	<u>Interface Design Rules</u>	29
8.2	<u>Inputs</u>	30
8.3	<u>Outputs</u>	30
8.4	<u>Navigation Hierarchy</u>	30
9	<u>System Integrity Controls</u>	30
10	<u>Use Case</u>	31
10.1	<u>Requirements Traceability Matrix</u>	32
10.2	<u>Packaging and Installation</u>	32
10.3	<u>Design Metrics</u>	33
10.4	<u>Glossary</u>	33
10.5	<u>Index to Tables, Diagrams and Figures</u>	37
10.6	<u>Required Technical Documents</u>	37
	<u>Attachment A - Approval Signatures</u>	38
	<u>Template Revision History</u>	39
	<u>Document Approvals</u>	40

1 Introduction

The Office of Mental Health Services (now designated Mental Health Services [MHS]) requested the development of Mental Health Clinical Reminder (MHCR) Dialog Templates, to be used for Evidence Based Psychotherapy (EBP) protocols for the treatment of mental health conditions. These conditions include (but are not limited to) depression, and post-traumatic stress disorder. MHS is requesting the distribution of these templates in order to nationalize the data captured and to monitor the effectiveness of the therapies. There will be no new functionalities created nor are there any software or hardware modifications required of the Veterans Health Information Systems and Technology Architecture (VistA) or Computerized Patient Record System (CPRS). The MHCR Dialog Templates will utilize health factors for tracking a number of elements associated with the therapy protocols.

Use of these national reminder dialog templates support the “Improve Veterans Mental Health (IVMH)” Major Initiative, one of 16 high priority initiatives for the Department of Veterans Affairs (VA).

The Business Requirements Document (BRD) *Mental Health Evidence Based Psychotherapy Reminder Dialog Templates* identifies a total of nineteen (19) EBP protocols that require national dialog templates.

1.1 Purpose of this document

The objective of the MHCR System Design Document (SDD) is to document the design of the nineteen (19) key Mental Health Clinical Reminder components. This document describes the system design and focuses on the design of key functional components required to successfully demonstrate the MHCR features and functions necessary for testing prior to their national distribution.

1.2 Identification

The VA VistA Software system will be used for the development of the MHCR Dialog Templates. The development will be completed utilizing standard ANSI M-Programming language as required. Because these templates are for national distribution, the patch name will be prefixed by “VA”. The Clinical Reminder Dialog Templates shall reside within the CPRS environment. No new features have being developed. This request is to develop template content only.

1.3 Scope

The scope of the SDD includes developing a system design for the following National Mental Health Clinical Reminders functional components and dialog templates. The templates will be developed and released over multiple increments.

These templates will be deployed in PXR*2.0*29 (Increments 1 and 2):

- Prolonged Exposure Individual Therapy (PEI) Dialog Templates;
- Cognitive Processing Individual Therapy (CPT) Dialog Templates;
- Cognitive Behavioral Therapy (CBT) Dialog Templates; and
- Acceptance and Commitment Therapy (ACT) Dialog templates.

These templates will be deployed in PXR*2.0*32 (Increment 3):

- Interpersonal Therapy Dialog Templates;
- Social Skills Training (SST) Dialog Templates;
- Behavioral Family Therapy (BFT) Dialog Templates;
- Behavioral Couples Therapy for Substance-Use Disorder Dialog Templates; and
- Cognitive Behavioral Therapy for Insomnia (CBT – I) Dialog Templates.

These templates will be deployed in Patch PXR*2*42 (Increment 4):

- Behavioral Couples Therapy for Substance Use Disorder (BCT-SUD);
- Cognitive Behavioral Therapy for Chronic Pain (CBT-CP);
- Contingency Management (CM);
- Motivational Enhancement Therapy (MET);
- Motivational Interviewing (MI);
- Offering of Evidence Based Psychotherapies (Offering);
- Acceptance and Commitment Therapy for Depression - Booster (ACT-D Booster);
- Cognitive Behavioral Therapy for Depression Booster (CBT-D Booster);
- Cognitive Processing Therapy Booster (CPT Booster); and
- Prolonged Exposure Booster (PE Booster).

Table Scope Inclusions 1-1

Includes
The reminder dialog templates will be distributed nationally to ensure availability to all clinicians engaging in the supported therapy protocols. Templates will be available for all Mental Health (MH) clinicians providing Evidence Based Therapies that are included in the MHS roll-out.
Clinical Reminders will be distributed through the VA's national patch system.

The VistA Reminder Exchange [PXRMR REMINDER EXCHANGE] software will be used for extraction to a local host file. Any new VistA routines will be used to package the reminders for submission to the national patch distribution system.

Table Scope Exclusions 1-1

Excludes
No new functionality will be required for development of the clinical reminders.

1.4 Relationship to Other Plans

The following documents/references were used as the basis for this document:

- Distribution of the MHCR Dialog Templates, Version 1.0, Requirements Specification Document;
- Mental Health Evidence Based Therapy Reminder Dialog Templates Request #20100705; and
- NSR_20100705_Mental_Health_Evidence_Based_Therapy_Reminder_Dialog_Templates_BRD

1.5 Methodology, Tools, and Techniques

The MHCR templates, noted in Section 1.3, will be developed using the tools and techniques currently available in VistA and the CPRS module. The Clinical Reminder Menu options will be utilized to actually create and edit the reminders. However, before the reminders are actually created in VistA, there is a process of definition to be followed. The methodology that describes the process is listed in Table 3, Define a Clinical Reminder Template.

Table 3 Define a Clinical Reminder Template

There are two parts to creating a clinical reminder; the reminder definition and the process issues. Below are the descriptions of each, along with steps required to define a clinical reminder.
Reminder Definition : This describes the patients that 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 in that if they are not worked out the reminder will never function as intended, even if the definition is correct.
Basic steps for defining a clinical reminder:
1) Write the reminder definition in a narrative form. Clearly describe what the reminder should accomplish. Use this narrative to identify the patient data you want to include and how to capture it.
2) Determine what characteristics the reminder will have. Make a list which includes the category of patient the reminder will be applicable to, along with any demographics to include, such as age ranges, gender, diagnoses, etc.
3) List what satisfies the reminder (i.e., age of patient and specific diagnosis). For example: age >65 with diagnosis of schizophrenia.

- | |
|--|
| 4) List what makes the reminder not applicable. For example: diagnoses, lab results, x-rays, education, etc. |
|--|

1.6 Policies, Directives and Procedures

The following policies, directives, and procedures were used as the basis for this document:

- VHA DIRECTIVE 2008-084 December 16, 2008.

1.7 Constraints

The only possible constraint in the design and development of the MHCR system is if a complete RSD is not furnished from the VA MHS. The RSD is necessary so that the development of the Clinical Reminders is aligned with the requirements of the Mental Health Care Professionals across all VA facilities.

1.8 Design Trade-offs

There are no trade-offs involved with this design. It follows the current VistA/CPRS aspects of performance, reliability, and usability, including 508 Compliance. The MHCR Dialog Templates will be distributed nationally to ensure availability to all clinicians engaging in the supported therapy protocol. Necessary training on the use of the templates will be developed and disseminated by the Mental Health Program Office (MHPO) as applicable.

1.9 User Characteristics

The intended user of the Clinical Reminder Dialog Templates shall be the facility staff and all MHS department personnel. The Clinical Reminder Dialog Templates shall be made available to all clinicians engaged in the supported therapy protocols. Proficiency in CPRS is the only user requirement.

1.9.1 User Problem Statement

Currently, the distribution of National Reminder Dialog Templates is dependent on local sharing between medical centers. This method of sharing is not the most effective way to ensure all sites receive the standardized National Reminder Dialog Templates. Use of these National Reminder Dialog Templates will facilitate uniform data collection. The distribution of the EBP templates will provide the MHS the ability to effectively monitor implementation of the therapy protocols and evaluate the effectiveness of the therapies. National distribution of the templates will provide all sites the resources available to support adherence to the EBP protocols.

1.9.2 User Objectives

This request is in direct alignment with the VHA mission statement which is to “Honor America’s Veterans by providing exceptional health care that improves their health and well-

being.” The VA has identified a set of 16 major initiatives, representing the highest priorities for the Department. This request supports one of the VA’s 16 Major Initiatives, Improve Veterans Mental Health.

This request supports Mental Health Operating Plan element C2: *Develop a management system at the local level to support delivery of evidence-based psychotherapy.* This request would furnish mental health staff with the ability to gather the most complete interview data to be used in evaluation and treatment of major mental health conditions.

The following table identifies what the Business owner desires and what this SDD will cover.

Table 4 Business Needs and Owner requirements

Business Need (BN)	OWNR Number	Owner Requirement (OWNR)	Ranking R=Required O=Optional
BN 1: Nationally distribute templates for Evidence Based Therapy protocols currently being piloted at VA facilities.			
	1.1	Provide the ability to release Prolonged Exposure Individual Therapy templates.	R
	1.2	Provide the ability to release Cognitive Processing Individual Therapy templates.	R
	1.3	Provide the ability to release Cognitive Behavioral Therapy templates.	R
	1.4	Provide the ability to release Acceptance and Commitment Therapy templates.	R
BN 2: Nationally distribute templates for Evidence Based Therapy protocols that have been developed but not yet piloted.			
	2.1	Provide the ability to release Social Skills Training templates.	R
	2.2	Provide the ability to release Family Psycho-education training templates.	R
BN 3: Nationally distribute templates for Evidence Based Therapy protocols for therapies to be initiated during fiscal year 2011.			
	3.1	Provide the ability to release Insomnia templates.	R
	3.2	Provide the ability to release Pain Management templates.	R
	3.3	Provide the ability to release Problem Solving Training templates.	R

Business Need (BN)	OWNR Number	Owner Requirement (OWNR)	Ranking R=Required O=Optional
	3.4	Provide the ability to release Behavioral Couples Therapy for Substance Use Disorder templates.	R
	3.5	Provide the ability to release Congressional Mandated Military Sexual Trauma templates.	R
	3.6	Provide the ability to release Motivational Interviewing templates.	R
	3.7	Provide the ability to release Motivational Enhancement Therapy templates.	R
	3.8	Provide the ability to release Integrated Behavioral Couples Therapy templates.	R
	3.9	Provide the ability to release Interpersonal Therapy templates.	R
	3.10	Provide the ability to release Contingency Management templates.	R
	3.11	Provide the ability to release Cognitive Behavioral Therapy for Substance Use Disorder templates.	R
BN 4: Roll up data on a national level to facilitate evaluation of the use of Evidence Based Therapy protocols.*			
	4.1	Provide the ability to track the sites who have implemented the Evidence Based Therapy protocols.	R
	4.2	Provide the ability to track effectiveness of the use of Evidence Based Therapy protocols.	

*requirements for data roll-up/reports unknown at this time

2 Background

The VA Administration Executives have identified a set of transformational initiatives for the 21st century collectively referred to as T21. Among them is an initiative to Improve the Mental Health (IVMH) of our Veterans. A number of Information Technology (IT) efforts are needed in support. VistA is the health information system developed by the VA to provide a comprehensive electronic medical record. Enhancements to VistA are needed to facilitate achievement of the IVMH initiative.

2.1 Overview of the System

The MHCR Dialog Templates are an enhancement to VistA/CPRS in support of IVMH. These templates will be used for EBP protocols for treatment of mental health conditions including, but not limited to, depression and post-traumatic stress disorder. Use of the national reminder dialog templates within VistA's Clinical Reminder application will facilitate uniform data collection. The distribution of the EBP templates will provide MHS the ability to effectively monitor implementation of the therapy protocols and evaluate the effectiveness of the therapies. National distribution of the templates will provide all sites the resources available to support adherence to the EBP protocols.

2.2 Overview of the Business Process

In the following diagrams we depict the “as is” and “to be” state for use of the MHCR Dialog Templates.

Diagram 1 – Current Practice MHEBT

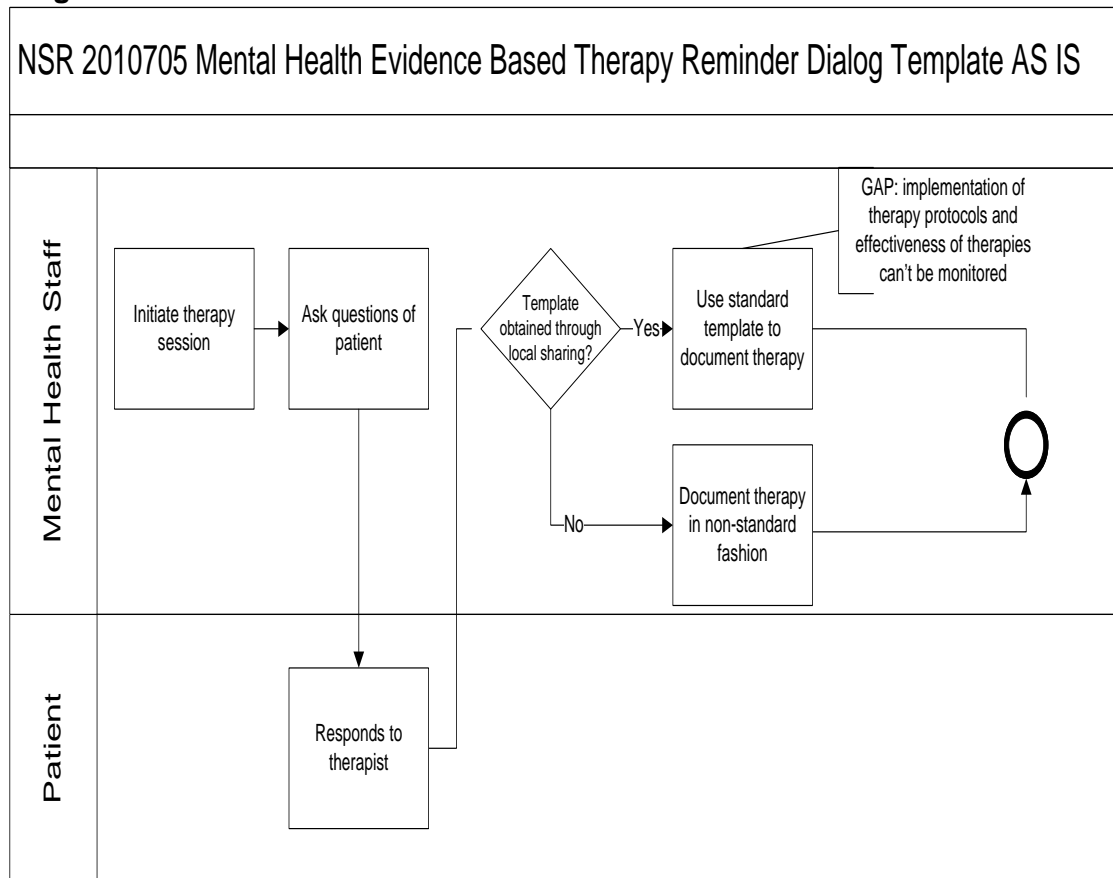
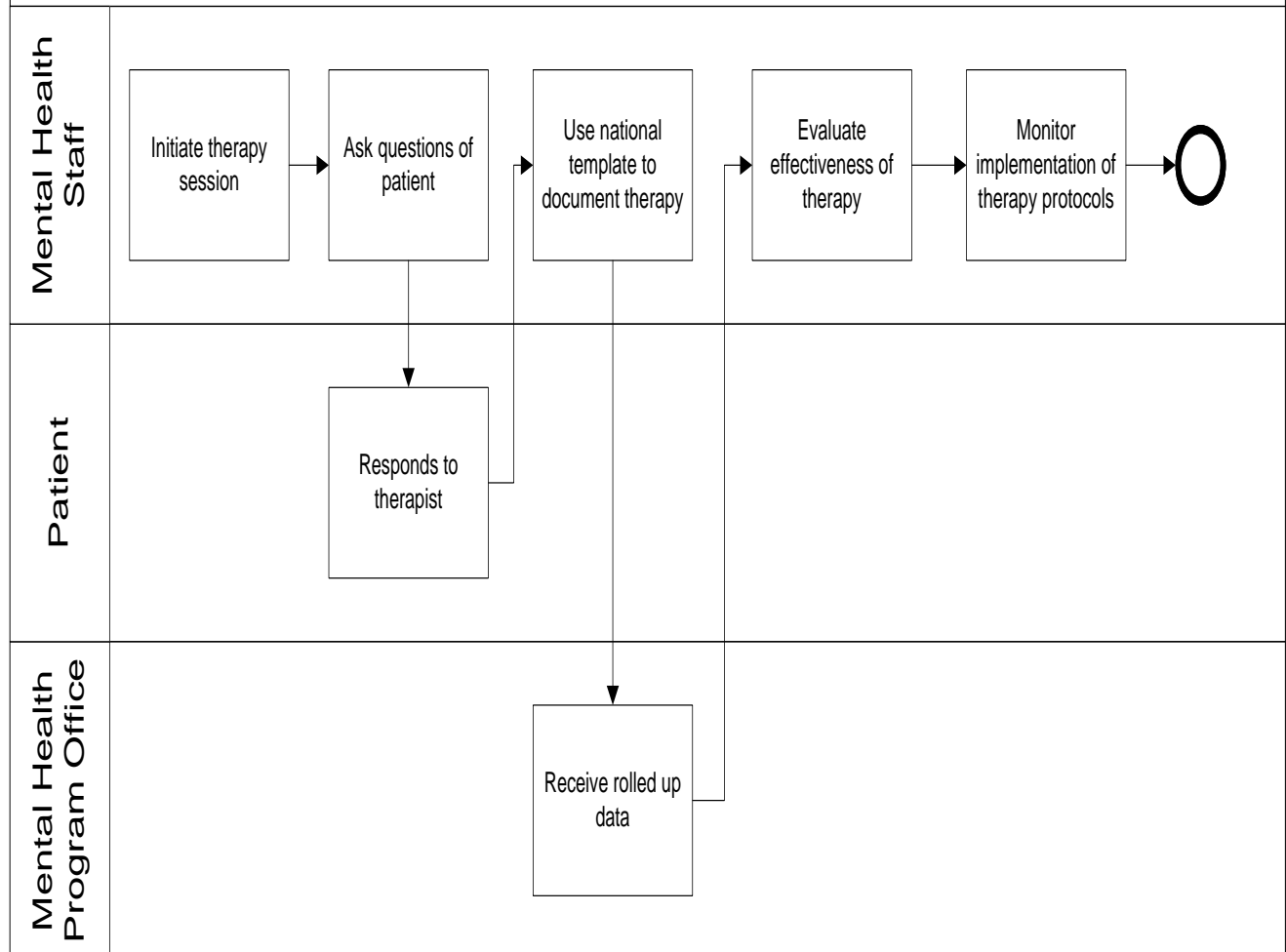


Diagram 2 – Future Practice MHEBT

NSR 2010705 Mental Health Evidence Based Therapy Reminder Dialog Template TO BE



2.3 Business Benefits

The use of these templates will support the adherence to the prescribed protocols and provide a mechanism for tracking the implementation and effectiveness of the therapy protocols.

Table 5 Outcome and Measurements

Outcome	Measurement
Templates will be available for all Mental Health (MH) clinicians providing evidenced based therapies that are included in the MHS roll-out.	<ul style="list-style-type: none"> Implementation of the therapy protocols can be tracked 100% of the time. Effectiveness of the therapy protocols can be tracked 100% of the time.

2.4 Assumptions and Constraints

It is assumed that no functionality will be lost with the implementation of the MHCR Dialog Templates.

2.4.1 Design Assumptions

The design and development of the MHCR system will follow the current design flow established in the VistA system for clinical reminder building. It is assumed that a complete Requirements Specifications Document (RSD) will be furnished to the developer/contractor from MHS so that the development of the Clinical Reminders are synchronized with the Mental Health (MH) clinicians providing evidenced based therapies that are included in the MHS roll-out.

2.4.2 Design Constraints

The design of the MHCR are subject to the existing constraints of the current VistA and CPRS applications. It is necessary to have a pre-defined Business Requirements Document (BRD) and RSD to design the MHCR Dialog Templates to the exact specifications approved by the MHS. Development is constrained to the existing VistA environment using the Reminder Managers Menu options and Patient Care Encounter Reminders Menus. Clinicians will use the CPRS GUI to view Reminder statuses and document activity in a reminder dialog.

2.5 Overview of the Significant Requirements

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.

2.5.1 Overview of Significant Functional Requirements

The primary goal of the MHCR Dialog Templates is to provide relevant information to providers at the point of care, for improving patient care. 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 performance measures. This requirement is performed by the collection and distribution of existing MHCR and by the development of new MHCR Reminders from the BRD and RSD.

Table 6 Functional Requirements

ID	Specific Requirement / Synopsis	Requirement
BN 1: 1.1- 1.4 BN 2: 2.1- 2.2	Nationally distribute templates for Evidence Based Therapy protocols currently being piloted and not piloted yet at VA facilities.	1. Collect, Test, Document, and Distribute nationally current VA developed MHCR identified in the RSD.
BN 3: 3.1- 3.11	Develop identified Clinical Reminders	1. Develop, Test, Document and Distribute nationally MHCR identified in the RSD.

2.5.2 Functional Workload and Functional Performance Requirements

This system supports the Mental Health Operating Plan element of developing a management system at the local level to support delivery of evidence-based psychotherapy. Although this request would furnish Mental Health staff with the ability to gather the most complete interview data to be used in evaluation and treatment of major mental health conditions, there are many steps that are necessary to satisfy the business requirements. The following tables illustrate the workload and performance steps involved.

Table 7 Workload and Performance Requirements

ID	Requirement
BN 1: 1.1- 1.4 BN 2: 2.1- 2.2	1. Install existing MHCR in CPRS Conduct Functional Tests Run CR Test Scenarios Document Defects Fix Defects Test Evaluation Summary Document Complete Documentation Complete Release Notes Develop the Install/Setup Guide Develop the User Manual 1a. Create new VA Patch Distribute Patch Send to Test Sites

BN 3: 3.1- 3.11	<ul style="list-style-type: none"> Track Sites for Installation Issue Feedback Address Reported Errors/Issues Update Documentation Complete Release Notes Develop the Install/Setup Guide Develop the User Manual 1b. Create new Patch for National Exchange <ul style="list-style-type: none"> Distribute Send to Patch Module Contact Deliver Documentation Track Sites for Installation Finalize Documentation Complete Release Notes Develop Install/Setup Guide Develop User Manual 2. Develop and Install MHCR in CPRS as identified in RSD <ul style="list-style-type: none"> Functional Test Run CR Test Scenarios Document Defects Fix Defects Test Evaluation Summary Document Documentation Release Notes Install/Setup Guide User Manual 2a. Create new VA Patch <ul style="list-style-type: none"> Distribute Send to Test sites Track Sites for Installation Issue Feedback Address Reported Errors/Issues Update Documentation Complete Release Notes Develop Install/Setup Guide Develop User Manual 2b. Create new Patch for National Exchange <ul style="list-style-type: none"> Distribute Send to patch module contact Deliver Documentation Track Sites for Installation
-----------------	--

	Finalize Documentation Complete Release Notes Develop Install/Setup Guide Develop User Manual
--	--

This project will be done within the VistA and CPRS environment and will be in compliance with the Service Delivery and Engineering (SDE) and the IT infrastructure Standards as evaluated in the Systems Engineering and Design Review (SEDR) process established from VistA and CPRS. All operational requirements are accomplished by the existing VistA/CPRS platforms.

2.5.3 Overview of the Technical Requirements

This project is in compliance with the VA Enterprise Architecture and doesn't impact any existing interfaces with system, hardware or operations supportability since it is using the existing platform of VistA/CPRS and their components.

2.5.4 Overview of the Security or Privacy Requirements

This system will be covered in the VistA System's C&A.

2.5.5 System Criticality and High Availability Requirements

The Clinical Reminder system and its components depend upon VistA and CPRS to function properly. The same criticality and high availability requirement associated with VistA and CPRS apply to this development effort. In as much as this is the case, this project is in compliance with the IT Infrastructure Standards.

2.5.6 Special Device Requirements

There are no special device requirements.

2.6 Legacy System Retirement

There are no legacy systems that will be retired as a result of this project.

3 Conceptual Design

3.1 Conceptual Application Design

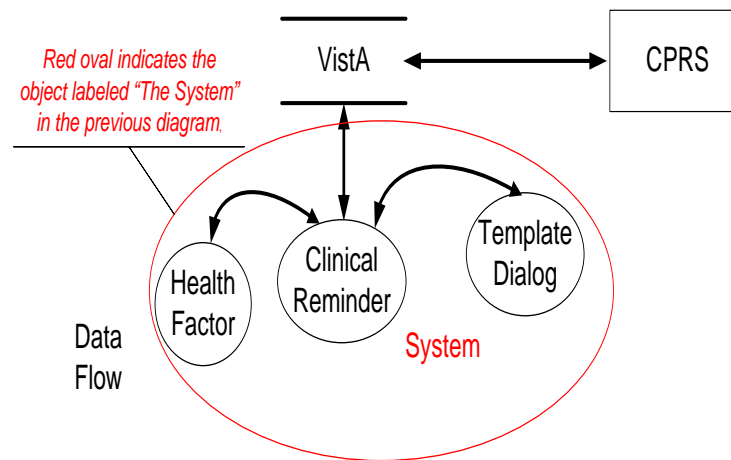
3.1.1 Application Context

The Application Context is depicted in Diagram # 3


```
graph TD; VistA[VistA] <--> CPRS[CPRS]; VistA <--> MHCR([MHCR is a subsystem in VistA]);
```

The following diagram depicts the Clinical Reminder Application Design at a High Level.

Diagram 4 - High Level Application Design



The application uses current VistA software and hardware already in place at the site, VISN, or Regional Data Center level.

Application Users are listed in Table 8.

Table 8 Application Users

Application Component	Location	Users
National Mental Health Clinical Reminders	VHA Facilities, VISNs, Regional Data Centers	Mental Health Professional/Clinicians VHA IT Software Professionals

3.2 Conceptual Data Design

3.2.1 Project Conceptual Data Model

The MHCR Dialog Template Conceptual Data Model follows the existing VistA Data Model. No additional updates to the VistA data model are required at this time.

3.2.2 Database Information

Table 9 - Database Inventory

Database Name	Description	Type	Steward
VistA- FileMan	VistA Database File Management System (DBMS)	[Create / Modify]	
PATIENT	The PATIENT file contains all the patients followed by the medical center both as an inpatient and as an outpatient at the VHA site.	Create/Modify	Health Administration
HEALTH FACTORS	This file contains a descriptive name of health factors, and their health factor category.	Create/Modify	Computerized Patient Record System Product Line
TIU TEMPLATES	This file stores TIU Templates, which are on-the-fly boilerplates that can be added to any note or addendum in the CPRS GUI. All shared and personal templates, as well as template hierarchy, are stored within this file. This file is intended for the CPRS GUI only. No server side implementation is provided or feasible. Maintenance of this file should only be performed using the Template Editor, which is contained within the CPRS GUI. Bypassing the template editor can cause file structure problems.	Create/Modify	Computerized Patient Record System Product Line
REMINDER DIALOG	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, WH Notification Purposes, and mental health tests. 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.	Create/Modify	Computerized Patient Record System Product Line

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.	Office of Mental Health Services (MHS)
-------------------------	---	---

3.3 Conceptual Infrastructure Design

The MHCR Dialog Templates will operate within the existing VistA Infrastructure. Sites that are part of the Regional Data Centers will continue to access the VistA database from their primary regional data center (Regions 1 and 4). Region 2 and 3 sites will continue to access their VistA database from either their local site or at the VISN level.

3.3.1 System Criticality and High Availability

There is no specific critical nature or high availability requirement for the MHCR templates. The MHCR Dialog Templates will use the current VistA level of availability and disaster recovery procedures within their current system plans.

3.3.2 Special Technology

There are no special technology usages within the MHCR Dialog Templates.

3.3.3 Technology Locations

The MHCR Dialog Templates will use the current VistA Software and Hardware already implemented at the site, VISN or Regional level.

3.3.4 Conceptual Infrastructure Diagram

The MHCR Dialog Templates follow the same conceptual infrastructure as VistA. The Conceptual Infrastructure Diagram for VistA is maintained at the VistA level.

3.3.4.1 Location of Environments and External Interfaces

The MHCR Dialog Templates are part of the current VistA environment.

3.3.4.2 Conceptual Production String Diagram

This is not applicable for the MHCR Dialog Templates.

4 System Architecture

The MHCR Dialog Templates uses the existing VistA Kernel System Software, the same architecture as VistA. VA FileMan provides the database management system (DBMS) upon which all files in VistA are based. FileMan must be present on all VistA systems and is designed to work with Kernel V. 8.0 or later.

4.1 Hardware Architecture

The MHCR Dialog Templates uses the existing VistA system hardware architecture.

4.2 Software Architecture

The MHCR Dialog Templates use the existing VistA Software architecture as noted in this website:

(HYPERLINK REDACTED)

4.3 Communications Architecture

The MHCR Dialog Templates uses the existing VA communications architecture.

5 Data Design

Data design is limited to the VistA Fileman and M programming design features and is developed according to the structure related in the RSD.

5.1 Database Management System Files

VA FileMan V. 22.0 software will control the database management and system files for the MHCR Dialog Templates. VA FileMan is a database management system (DBMS) consisting of computer routines written in American National Standards Institute (ANSI) Standard M, along with associated files.

The database within VistA is managed by the VHA OI Health System Design & Development (HSD&D) Infrastructure and Security Services (ISS). Further information regarding FileMan is available at:

(HYPERLINK REDACTED)

Table 10 System files

VistA FileMan File Name	File Number if applicable	File Location
FILEMAN - KERNEL EVE MENU [DIUSER]	Files with numbers less than two (2) belong to VA FileMan.	^DI
PATIENT	#2	^DPT
TIU DOCUMENT	#8925	^TIU(8925
TIU DOCUMENT DEFINITION	#8925.1	^TIU(8925.1
TIU TEMPLATES	#8927	^TIU(8927,
HEALTH FACTORS	#9999999.64	^AUTTHF
REMINDER DEFINITION	#811.9	^PXD(811.9,
REMINDER TAXONOMY	#811.2	^PXD(811.2

EXAM	#9999999.15	^AUTTEXAM
REMINDER DIALOG	#801.41	^PXRMD(801.41,
MH TESTS AND SURVEYS	#601.71	^YTT(601.71,

5.2 Non-Database Management System Files

There are no non-database management system files.

6 Detailed Design

6.1 Hardware Detailed Design

The computer hardware used to access the MHCR Dialog Templates is the current VA standard used within the VHA sites to access both VistA and a computer system capable of running the CPRS GUI application. No additional hardware design is indicated at this time.

6.2 Software Detailed Design

The MHCR protocols are built in a modular fashion and use the same 15 modules or sections. Dialog templates will be designed to capture a record of all transactions related to the care of the patient and will be available to the practitioner through the CPRS progress note file. However, finding items are unique to each protocol.

The MHCR Dialog Templates will be designed to allow the clinician to access the templates through the CPRS GUI at their facility. The templates will be located in the patient folder CPRS Notes under the Reminder Drawer tab. This design will allow the clinician to select the appropriate template associated with the protocol and session to be conducted.

The software will be designed to include result elements. 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 will contain a CONDITION that, when true, will use the ALTERNATE PROGRESS NOTE TEXT field to update the progress note. A separate result element will be used for each separate sentence needed. The result element will only be used with mental health test finding items. Default result elements will be distributed for common mental health tests, prefixed with PXRMD and the mental health test name. Sites may copy them and modify their local versions as needed.

A result group will contain 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 will be distributed with the Clinical Reminders package.

6.2.1 Field Definition Information

The following data are included for each field to be created, modified, or deleted. A screen capture of the affected field definitions will follow.

TABLE 11 - Field Definition Information Format

Field Name	N/A
Field Description	
Field #	
Node #	
Piece #	
New Field	<input type="checkbox"/> Yes X No
Data Type	<input type="checkbox"/> Date/Time <input type="checkbox"/> Numeric <input type="checkbox"/> Set of Codes <input type="checkbox"/> Free Text <input type="checkbox"/> Pointer to a File <input type="checkbox"/> Variable-Pointer
Identifier	<input type="checkbox"/> Yes <input type="checkbox"/> No
Uneditable Field	<input type="checkbox"/> Yes <input type="checkbox"/> No
Mandatory Field	<input type="checkbox"/> Yes <input type="checkbox"/> No
Field Documentation or Help Changes Necessary	<input type="checkbox"/> Yes <input type="checkbox"/> No
Field Definition	

6.2.2 Module - MENTAL HEALTH CLINICAL REMINDER**Sample ACT 1 – 3 Health Factor Dialog Template Field Definition**

Field Name	Time in Session
Field Description	
New Field	Yes
Data Type	X Date/Time <input type="checkbox"/> Numeric <input type="checkbox"/> Set of Codes <input type="checkbox"/> Free Text <input type="checkbox"/> Pointer to a File <input type="checkbox"/> Variable-Pointer
Identifier	<input type="checkbox"/> Yes <input type="checkbox"/> No

Field Name	Session Number
Field Description	
New Field	Yes
Data Type	<input type="checkbox"/> Date/Time X Numeric <input type="checkbox"/> Set of Codes <input type="checkbox"/> Free Text <input type="checkbox"/> Pointer to a File <input type="checkbox"/> Variable-Pointer
Identifier	<input type="checkbox"/> Yes <input type="checkbox"/> No

Field Name	Risk Information
Field Description	
New Field	No
Data Type	<input type="checkbox"/> Date/Time <input type="checkbox"/> Numeric <input type="checkbox"/> Set of Codes <input checked="" type="checkbox"/> Free Text <input type="checkbox"/> Pointer to a File <input type="checkbox"/> Variable-Pointer
Identifier	<input type="checkbox"/> Yes <input type="checkbox"/> No

Field Name	Mental Status/Behavioral Observation
Field Description	
New Field	No
Data Type	<input type="checkbox"/> Date/Time <input type="checkbox"/> Numeric <input type="checkbox"/> Set of Codes <input checked="" type="checkbox"/> Free Text <input type="checkbox"/> Pointer to a File <input type="checkbox"/> Variable-Pointer
Identifier	<input type="checkbox"/> Yes <input type="checkbox"/> No

Field Name	Other Relevant Assessment
Field Description	
New Field	No
Data Type	<input type="checkbox"/> Date/Time <input type="checkbox"/> Numeric <input type="checkbox"/> Set of Codes <input checked="" type="checkbox"/> Free Text <input type="checkbox"/> Pointer to a File <input type="checkbox"/> Variable-Pointer
Identifier	<input type="checkbox"/> Yes <input type="checkbox"/> No

Field Name	Session Content
Field Description	
New Field	No
Data Type	<input type="checkbox"/> Date/Time <input type="checkbox"/> Numeric <input type="checkbox"/> Set of Codes <input checked="" type="checkbox"/> Free Text <input type="checkbox"/> Pointer to a File <input type="checkbox"/> Variable-Pointer
Identifier	<input type="checkbox"/> Yes <input type="checkbox"/> No

Field Name	Practice Assessment
Field Description	

New Field	No
Data Type	<input type="checkbox"/> Date/Time <input type="checkbox"/> Numeric <input type="checkbox"/> Set of Codes X Free Text <input type="checkbox"/> Pointer to a File <input type="checkbox"/> Variable-Pointer
Identifier	<input type="checkbox"/> Yes <input type="checkbox"/> No

Field Name	Motivational Enhancement
Field Description	
New Field	No
Data Type	<input type="checkbox"/> Date/Time <input type="checkbox"/> Numeric <input type="checkbox"/> Set of Codes X Free Text <input type="checkbox"/> Pointer to a File <input type="checkbox"/> Variable-Pointer
Identifier	<input type="checkbox"/> Yes <input type="checkbox"/> No

Field Name	Degree of Collaboration
Field Description	
New Field	No
Data Type	<input type="checkbox"/> Date/Time <input type="checkbox"/> Numeric X Set of Codes X Free Text <input type="checkbox"/> Pointer to a File <input type="checkbox"/> Variable-Pointer
Identifier	<input type="checkbox"/> Yes <input type="checkbox"/> No

Field Name	Additional Session Information
Field Description	
New Field	No
Data Type	<input type="checkbox"/> Date/Time <input type="checkbox"/> Numeric <input type="checkbox"/> Set of Codes X Free Text <input type="checkbox"/> Pointer to a File <input type="checkbox"/> Variable-Pointer
Identifier	<input type="checkbox"/> Yes <input type="checkbox"/> No

Field Name	Plan
Field Description	
New Field	No
Data Type	<input type="checkbox"/> Date/Time <input type="checkbox"/> Numeric <input type="checkbox"/> Set of Codes X Free Text

	<input type="checkbox"/> Pointer to a File	<input type="checkbox"/> Variable-Pointer
Identifier	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Example: ACT #1 Beginning Template Detail

The table below details the field content requirements to develop the ACT 1 templates.

Table 12 - ACT 1 Template Detail

SEQ	NAME	TYPE	CAPTION	BOX	# OF INDENTS	FINDING ITEM	EXCLUDE FROM	PROMPT CAPTION	DIALOG/PROG RESS NOTE TEXT	ALTERNATE PROGRESS NOTE TEXT
1	ACT 1 TITLE HEADER	dialog element				ACT 1 ACCEPT AND COMMIT BEGIN PHASE			Acceptance and Commitment Therapy (ACT) for Depression - Beginning Phase	
5	ACT TIME IN SESSION	dialog element				ACT TIME IN SESSION			Time in session	
	PXRM COMMENT	prompt						Comment:		
7	ACT 1 SESSION NUMBER GP	dialog group	SESSION NUMBER	YES	2					SESSION NUMBER:
	ACT SESSION NUMBER 1	dialog element				ACT SESSION NUMBER 1			1	
	ACT SESSION NUMBER 2	dialog element				ACT SESSION NUMBER 2			2	
	ACT SESSION NUMBER 3	dialog element				ACT SESSION NUMBER 3			3	
	ACT SESSION NUMBER 4	dialog element				ACT SESSION NUMBER 4			4	
	ACT SESSION NUMBER 5	dialog element				ACT SESSION NUMBER 5			5	
10	ACT SESSION FORMAT	dialog group	SESSION FORMAT	YES	2					SESSION FORMAT:
	ACT SESSION FACE TO FACE	dialog element				ACT SESSION FACE-TO-FACE			Face-to-Face Session	
	ACT SESSION TELEPHONE	dialog element				ACT SESSION TELEPHONE			Telephone Session	
	ACT SESSION VIDEO TELEHEALTH	dialog element				ACT SESSION VIDEO TELEHEALTH			Video Telehealth Session	
	ACT SESSION OTHER	dialog element				ACT SESSION OTHER			Other Session type	
	PXRM COMMENT	prompt						Comment:		
12	ACT SESSION LOCATION GP	dialog group	SESSION LOCATION:	YES	2					SESSION LOCATION:

SEQ	NAME	TYPE	CAPTION	BOX	# OF INDENTS	FINDING ITEM	EXCLUDE FROM	PROMPT CAPTION	DIALOG/PROG RESS NOTE TEXT	ALTERNATE PROGRESS NOTE TEXT
	ACT LOCATION CLC	dialog element				ACT LOCATION CLC			Community Living Center	
	ACT LOCATION CBOC	dialog element				ACT LOCATION CBOC			CBOC	
	ACT LOCATION DOM	dialog element				ACT LOCATION DOM			Domiciliary	
	ACT LOCATION INPT MH	dialog element				ACT LOCATION INPT MH			Inpatient Mental Health	
	ACT LOCATION OEF/OIF	dialog element				ACT LOCATION OEF/OIF			OEF/OIF Clinic	
	ACT LOCATION MHC	dialog element				ACT LOCATION MHC			Mental Health Clinic	
	ACT LOCATION RRTP	dialog element				ACT LOCATION RRTP			MH Residential Rehabilitation Treatment Program (RRTP)	
	ACT LOCATION MHICM	dialog element				ACT LOCATION MHICM			MHICM	
	ACT LOCATION HBPC	dialog element				ACT LOCATION HBPC			Patient Residence - Home Based Primary Care	
	ACT LOCATION PT RESIDENCE	dialog element				ACT LOCATION PT RESIDENCE			Patient Residence - Other	
	ACT LOCATION PCT	dialog element				ACT LOCATION PCT			PTSD Clinical Team	
	ACT LOCATION PC	dialog element				ACT LOCATION PC			Primary Care	
	ACT LOCATION SUD	dialog element				ACT LOCATION SUD			Substance Use Disorder Clinic	
	ACT LOCATION PRRC	dialog element				ACT LOCATION PRRC			PRRC/Day Treatment	
	ACT LOCATION COMMUNITY	dialog element				ACT LOCATION COMMUNITY			Community/Non-VA	
	ACT LOCATION OTHER	dialog element				ACT LOCATION OTHER			Other	
	PXRM COMMENT	prompt						Comment:		
15	ACT DIAGNOSIS GP	dialog group	DIAGNOSIS:	YES	2					DIAGNOSIS:
	ACT DIAGNOSIS PRIMARY	dialog element							Primary Diagnosis (focus of visit)	
	PXRM COMMENT	prompt						Comment:		
	ACT DIAGNOSIS SECONDARY	dialog element							Secondary Diagnosis (if applicable)	
	PXRM COMMENT	prompt						Comment:		
20	ACT ASSESSMENT	dialog group		YES	2				ASSESSMENT	
	ACT ASSESS BDI-II	dialog element				BDI2			BDI - II (go to suicide evaluation if indicated)	
	ACT ASSESS OTHER	dialog group	OTHER ASSESSMENT INSTRUMENTS	YES	2				Other assessment instruments administered during this visit:	

SEQ	NAME	TYPE	CAPTION	BOX	# OF INDENTS	FINDING ITEM	EXCLUDE FROM	PROMPT CAPTION	DIALOG/PROG RESS NOTE TEXT	ALTERNATE PROGRESS NOTE TEXT
	ACT ASSESS AAQII	dialog element				ACT ASSESS AAQII			Acceptance and Action Questionnaire-II (AAQ-II):	
	ACT ASSESS WHO-QOL	dialog element				ACT ASSESS WHO-QOL			World Health Organization-Quality of Life (WHO-QOL):	
	ACT ASSESS WAI- SR	dialog element				ACT ASSESS WAI- SR			Working Alliance Inventory- Short Revised (WAI-SR):	
	ACT ASSESS 5 FACET MINDFULNESS SCALE	dialog element				ACT ASSESS 5 FACET MIND SCALE			5-Facet Mindfulness Scale	
	ACT ASSESS RESULTS DESCRIBE	dialog element							Assessment Results: {FLD:BLANK WORD PROCESSING} \\	
25	ACT 1 CONTENT SESSION	dialog group	Session Content:	YES	2				Session Content: In this beginning phase session of ACT for Depression, the following therapeutic activities were performed:	
	ACT 1 CONTENT DISCUSSED RATIONALE OF ACT	dialog element				ACT 1 CONTENT DISCUSSED RATIONALE OF ACT			Provided the Veteran with an overview and rationale of ACT, what to expect over the course of the treatment, and the collaborative nature of the therapeutic relationship.	
	ACT 1 CONTENT GOALS	dialog element				ACT 1 CONTENT GOALS			The goals of ACT were explained in terms of learning a new relationship with internal experience in the service of freeing oneself to pursue personal values.	
	ACT 1 CONTENT METAPHOR CHOICES	dialog group		YES	2				The following metaphors were used to assist client in understanding the treatment philosophy and purpose of ACT.	
	ACT 1 CONTENT METAPHOR ROLLER COASTER	dialog element				ACT 1 CONTENT METAPHOR ROLLER COASTER			Roller Coaster Metaphor	
	ACT 1 CONTENT METAPHOR MUD IN GLASS	dialog element				ACT 1 CONTENT METAPHOR MUD IN GLASS			Mud in Glass Metaphor	
	ACT 1 CONTENT METAPHOR TWO MOUNTAINS	dialog element				ACT 1 CONTENT METAPHOR TWO MOUNTAINS			Two Mountains Metaphor	
	ACT 1 CONTENT CLIENT RESPONSE	dialog element				ACT 1 CONTENT CLIENT RESPONSE			Client's response to rationale: {FLD:BLANK WORD PROCESSING}	
	ACT 1 CONTENT ELICITED LIFE STORY	dialog element				ACT 1 CONTENT ELICITED LIFE STORY			Therapist elicited client's Life Story	or the history of his/her difficulty with personal presenting problem. This story included {FLD:BLANK WORD PROCESSING} "
	ACT 1 HOMEWORK	dialog element				ACT 1 HOMEWORK			Homework/Practice Assignment: {FLD:BLANK WORD PROCESSING}	
	ACT 1 TREATMENT PROGRESS	dialog element				ACT 1 TREATMENT PROGRESS			Treatment Progress:{FLD:BLANK WORD PROCESSING}\\	
40	ACT 1 MOTIVATIONAL ENHANCEMENT GP	dialog group	MOTIVATIONAL ENHANCEMENT	YES	2					

SEQ	NAME	TYPE	CAPTION	BOX	# OF INDENTS	FINDING ITEM	EXCLUDE FROM	PROMPT CAPTION	DIALOG/PROG RESS NOTE TEXT	ALTERNATE PROGRESS NOTE TEXT
	ACT 1 MOTIVATION ENHANCE GOALS	dialog element				ACT 1 MOTIVATION ENHANCE GOALS			Identified short-term goals in several areas of functioning.	
	PXRM COMMENT	prompt						Comment:		
	ACT 1 MOTIVATION ENHANCE CONSEQUENCES	dialog element				ACT 1 MOTIVATION ENHANCE CONSEQUENCES			Identified the consequences or impact of depression (or other symptoms).	
	PXRM COMMENT	prompt						Comment:		
	ACT 1 MOTIVATION ENHANCE BENEFITS	dialog element				ACT 1 MOTIVATION ENHANCE BENEFITS			Identified the benefits of reducing the severity of the depression.	
	PXRM COMMENT	prompt						Comment:		
	ACT 1 MOTIVATION ENHANCE ATTITUDES	dialog element				ACT 1 MOTIVATION ENHANCE ATTITUDES			Assessed attitudes and expectations for therapy.	
	PXRM COMMENT	prompt						Comment:		
	ACT 1 MOTIVATION ENHANCE BARRIERS	dialog element				ACT 1 MOTIVATION ENHANCE BARRIERS			Assessed any barriers to attending therapy and assisted the patient in problem-solving these barriers.	
	PXRM COMMENT	prompt						Comment:		
46	ACT COLLABORATION GP	dialog group	COLLABORATION:	YES	2					COLLABORATION:
	ACT DEGREE OF COLLABORATION TEXT	dialog element					NO		The degree of collaboration between the patient and the therapist in the current session was:	
	ACT COLLABORATION LOW	dialog element				ACT COLLABORATION LOW			Low	
	ACT COLLABORATION MEDIUM	dialog element				ACT COLLABORATION MEDIUM			Medium	
	ACT COLLABORATION HIGH	dialog element				ACT COLLABORATION HIGH			High	
	ACT COLLABORATION THERAPEUTIC ALLIANCE GIVEN	dialog element				ACT COLLABORATION THERAPEUTIC ALLIANCE			Results of Therapy Alliance Measure: {FLD:BLANK WORD PROCESSING} \\\	
47	ACT ADDITIONAL SESSION INFO GP	dialog group	ADDITIONAL SESSION INFORMATION	YES	2		NO			ADDITIONAL SESSION INFORMATION
	ACT ASSESS OTHER DESCRIPTION	dialog element					YES		Check to add information regarding: session content and reactions; level of engagement; MSE factors; SI/HI evaluation; SUD; cultural and spiritual influences.	
	ACT ADDITIONAL SESSION INFO CONTENT	dialog element							Reactions to Session Content: {FLD:BLANK WORD PROCESSING} \\\	
	ACT ASSESS OTHER LEVEL OF ENGAGEMENT	dialog element							Level of Engagement: {FLD:BLANK WORD PROCESSING} \\\	
	ACT ASSESS OTHER MS FACTORS	dialog element							Mental Status Factors: {FLD:BLANK WORD PROCESSING} \\\	

SEQ	NAME	TYPE	CAPTION	BOX	# OF INDENTS	FINDING ITEM	EXCLUDE FROM	PROMPT CAPTION	DIALOG/PROGRESS NOTE TEXT	ALTERNATE PROGRESS NOTE TEXT
	ACT ASSESS OTHER SI/HI	dialog element							Suicidal/Homicidal Ideation Evaluation: {FLD:BLANK WORD PROCESSING} \\\	
	ACT ASSESS OTHER SUD	dialog element							Substance Abuse: {FLD:BLANK WORD PROCESSING} \\\	
	ACT ASSESS OTHER CULTURAL	dialog element							Cultural Influences: {FLD:BLANK WORD PROCESSING} \\\	
	ACT ASSESS OTHER SPIRITUAL	dialog element							Spiritual Influences: {FLD:BLANK WORD PROCESSING} \\\	
48	ACT PLAN DT NEXT SESSION GP	dialog group	ENTER TIME/DATE NEXT SESSION	YES	2					
	ACT PLAN DT NEXT SESSION	dialog element							Next session scheduled for: {FLD:WP-2VSHORT}	

6.3 Communications Detailed Design

There are no new communications designs. The current MailMan, VistA/CPRS alert system will be utilized to notify the clinician of reminders needing to be resolved.

7 External Interface Design

There are no new external interface designs.

7.1 Interface Architecture

No non-VA products are embedded in or required by VA FileMan, other than those provided by the underlying operating systems.

7.2 Interface Detailed Design

The MHCR Dialog Templates will use VistA and CPRS interfaces as they currently exist between the Clinical Reminders and Patient Care Encounter and CPRS modules.

8 Human-Machine Interface

The MHCR Dialog Templates will use existing VistA and CPRS clinical professionals and machine interfaces.

8.1 Interface Design Rules

There are no new interface design rules.

8.2 Inputs

All input is determined by the clinical reminder definition and dialog templates for use by the clinician with the CPRS/CCR.

8.3 Outputs

There are no specific outputs included within this design.

8.4 Navigation Hierarchy

A diagram of the navigation hierarchy for the MHCR Dialog Templates will be provided in a later version of the SDD.

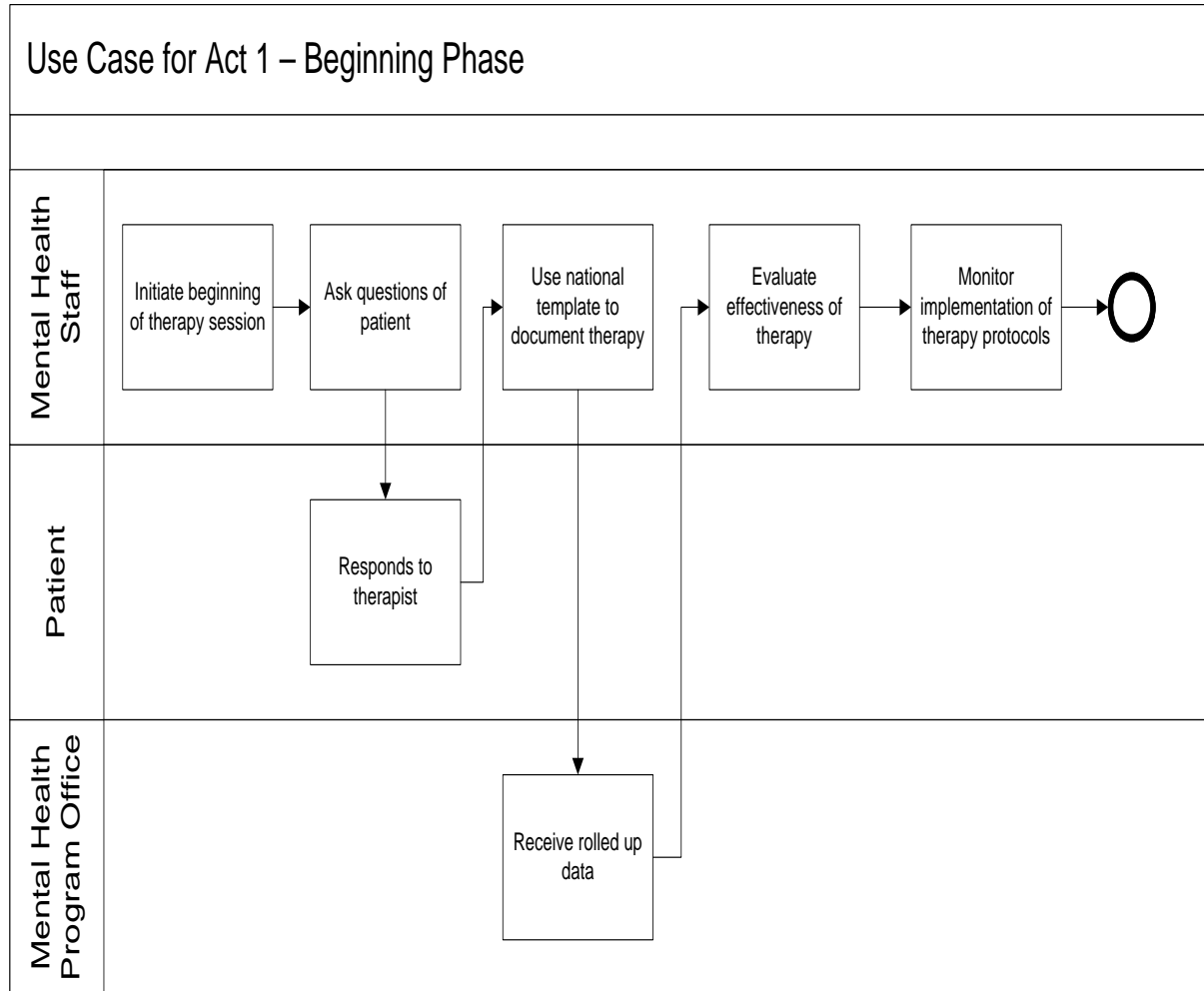
9 System Integrity Controls

This system will utilize all the audit procedures, controls and verification processes used within the VistA development structure and associated with CPRS to insure system and data integrity.

10 Use Case

The following use case depicts how a MHCR Dialog Template will be accessed by a Mental Health Staff Member and used to document the particular therapy.

Use Case Act 1 – Beginning Phase



10.1. Requirements Traceability Matrix

A Requirements Traceability Matrix (RTM) is not being included as part of the MHCR Dialog Templates.

10.2. Packaging and Installation

The MHCR Dialog Templates will be distributed using the VA National Patch System. The underlying generic process to accomplish this is described in more detail below. Each MHCR increment patch will include a set of Release Notes, an Installation Guide and a User Guide. The Installation Guide provides a detailed process for each installation from start to finish. The packaging of the MHCR will be performed according to standard Vista procedures for the Clinical Reminders.

The MHCR Dialog Templates will be stored in the Reminder Exchange File Number 811.8, Global ^PXD(811.8, as the standard for exporting and importing MHCR. The reminders to be exported will be saved into this file to allow exportation. This is accomplished using standard Vista programs.

After saving into the Reminder Exchange file, an M program routine, “KRMHBLD”, will be run that allows the person exporting the MHCR to select one or all reminders to be exported.

Reminder Exchange Entry Selection

Reminder Exchange Entry Selection			
Seq	Reminder Name	Pack Date	Packed by
61	VA-EMBEDDED FRAGMENTS SCREEN	AUG 12,2009@11:09	REDACTED
62	VA-GEC REFERRAL CARE COORDINATION	AUG 25,2004@08:54	
63	VA-GEC REFERRAL CARE RECOMMENDATION	JUL 30,2007@15:15	
64	VA-GEC REFERRAL NURSING ASSESSMENT	JUL 30,2007@15:15	
65	VA-GEC REFERRAL SOCIAL SERVICES	AUG 25,2004@08:56	
66	VA-GEC REFERRAL TERM SET (CC)	AUG 25,2004@08:51	
67	VA-GEC REFERRAL TERM SET (CR)	AUG 25,2004@08:52	
68	VA-GEC REFERRAL TERM SET (NA)	AUG 25,2004@08:53	
69	VA-GEC REFERRAL TERM SET (SS)	AUG 25,2004@08:54	
70	VA-GP ALC ADVICE2	JAN 25,2010@14:50	
71	VA-GP EF CONTACT INFORMATION	JAN 25,2010@14:45	
72	VA-HF ACUTE ILLNESS EVAL	FEB 20,2010@09:09	
73	VA-HF ETOH SELF SCORE AUD 10	JAN 7,2010@10:01:	
74	VA-HTN ASSESSMENT BP >=140/90	JUL 11,2006@14:35	
75	VA-HTN ASSESSMENT BP >=160/100	JUL 11,2006@14:35	

Select a Seq #, press ENTER to Continue, ^ to exit, Q to quit or B to back up.
Enter your selection: Continue//

Once the MHCR Dialog Templates have been selected, the user may type ^ to exit the selecting process. As part of the design, the user will then be asked to verify the selection(s) per the screen below.

```
You have chosen to export these Reminder Exchange File items:
```

```
VA-HTN ASSESSMENT BP >=160/100
```

```
(You may enter N to start over or ^ to exit)  
Do you want to save these items? Yes//
```

Reminder Exchange Entry Selection 'Ctd

If the user confirms that the screen is correct, the item(s) selected will be saved as text entries into two programs that will be used for export and import respectively. KRMHCREX, (actual namespace will be provided by VA) will serve as the export program and in the text area of the program will contain the entries to be exported. This program will then be referenced later during the KIDs file building. The program KRMHCREI (actual namespace will be provided by VA) will serve as the import program and contain all the information needed for installing the exported MHCR into the target site's Reminder Exchange file.

After the selection(s) are saved and the programs updated with the selected information, a standard KIDs build will be completed, using standard VistA KIDs utilities. Within this build, the Reminder Exchange file data will be exported but screened by the entries saved into KRMHCREX. This limits any data exported to only what the user previously selected. The KIDs build will be a standard KIDs host file and will contain data of the exported reminders in XML 2.0 format as used within the VA for reminder exportation.

At the target site, the host file will be loaded and then installed using the standard KIDS build and KIDs host file installation procedures. Once the KIDs build is installed, the reminders will be imported directly into the Reminder Exchange file. After installation, it will be necessary to select which MHCR to install. Reminders will not be installed automatically into the Reminder Definition file because there may be questions that have to be answered at the time of installation.

10.3. Design Metrics

Development and design will follow the metrics described in the Clinical Reminders Development documentation located on the website for the VA Software Document Library - (HYPERLINK REDACTED)

10.4. Glossary

Table 13 Acronyms and Glossary

Term	Meaning
ACT	Acceptance and Commitment Therapy
BRD	Business Requirements Document
CBT	Cognitive Behavioral Therapy
CBT - I	Cognitive Behavioral Therapy for Insomnia

CPRS	Computerized Patient Record System
CPRS/CCR	Computerized Patient Record System/Computerized Clinical Reminder Module
EBP	Evidence Based Psychotherapy
EBP	Evidence Based Practice
GUI	Graphical User Interface
HF	Health Factor
IVMH	Improve Veteran Mental Health
MH	Mental Health
MH Assistant	Mental Health Assistant
MHA3	Mental Health Assistant 3 (package)
MHS	Mental Health Services (previously OMHS)
OMHS	Office of Mental Health Services, now designated Mental Health Services (MHS)
PEI	Prolonged Exposure Individual Therapy
PCE	Patient Care Encounter
PRF	Patient Record Flag
RSD	Requirements Specification Document
TIU	Text Integration Utility
VA	Department of Veterans Affairs
VAMC	VA Medical Center
VistA	Veterans Health Information System and Technology Architecture
Component	A component represents the module that is presented in any given template.
Clinical Reminder	A clinical reminder is a software decision support tool that defines evaluation and resolution logic for a given clinical activity. The evaluation logic defines conditions in the database including the presence or absence of specified criteria such as diagnoses, procedures, health factors, medications, or demographic variables (e.g., age, gender). A reminder may or may not require provider resolution, depending on its purpose and design, through a user interface, also known as a reminder dialog. Also, in accordance with the underlying logic, reminders may be used to collect specified patient information that may or may not be related to the dialog.
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, Mental Health Notification Purposes, 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. 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 Group	A dialog group is similar to menu options. It groups dialog elements and dialog groups within its component. The dialog group can be defined with a finding item and a check-box. The components in the group can be hidden from the CPRS GUI window until the dialog group is checked off.
Finding Item	A Finding Item is a piece of information that can be searched by the reminder.
Health Factors	A health factor is a computerized component that captures patient information that for which no standard code exists, such as Family History of Alcohol Abuse, Lifetime Non-smoker, No Risk Factors for Hepatitis C, etc.
Mental Health Assistant	The Mental Health Assistant is a national VA software package that is used for administration and scoring of standardized self-report questionnaires and tests. It is integrated with clinical reminders in that mental health assistant instruments can be administered through a reminder dialog. Also the results of a specific instrument overall score, scale score, or specific item response can be used as a finding in reminder logic. This is the mechanism, for presenting questionnaires for screening for common mental health issues such as the AUDIT-C for alcohol misuse.
Prompt	An aid on the screen in the form of a question or statement indicating the options available. Prompts are defined for PCE, MH Notification Purpose, or as locally created comment check-boxes.
PXRM	Clinical Reminder package namespace
Reminder Component	A reminder component is any element, or part thereof, of a reminder, including the reminder's definitions, dialogs, findings, terms, cohort logic or resolution logic.
Reminder Definition	The reminder definition is the internal logic of the reminder. It describes the patients the reminder applies to, how often it is given, and what resolves or satisfies the reminder. It is comprised of the predefined set of finding items used to identify patient cohorts and reminder resolutions
Reminder Dialog	The reminder dialog is the display, which is seen by the user in the CPRS Graphical User Interface (GUI), when opening a reminder. 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 updates progress notes, places orders, and updates other data in the patient's medical record. A reminder dialog is created by the assembly of components in groups into an orderly display.
Reminder Finding	Reminder finding is a type of data element in the Veterans Health Information and Technology Architecture (Vista) that determines a reminder's status.
Reminder Term	A reminder term is a predefined finding item(s) that are used to map local findings to national findings, providing a method to standardize these findings for national use.
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.
Term	A TERM is a collection of findings grouped together to make one concept.
TIU	Text Integration Utilities (TIU) simplifies the access and use of clinical documents for both clinical and administrative VAMC personnel, by standardizing the way clinical documents are managed. TIU accepts document input from a variety of data capture methodologies. Those initially supported are transcription and direct entry. TIU allows upload of ASCII formatted documents into VISTA.

10.5. Index to Tables, Diagrams and Figures

Table Label	Title
Table 1	Scope Inclusion
Table 2	Scope Exclusion
Table 3	Define a Clinical Reminder
Table 4	Business Needs and Owner requirements
Table 5	Outcome and Measurements
Table 6	Functional Requirements
Table 7	Workload and Performance Requirements
Table 8	Application Users
Table 9	Database Inventory
Table 10	System files
Table 11	Field Definition Information Format
Table 12	ACT 1 Template Detail
Table 13	Acronyms and Glossary of Terms
Diagrams Label	Title
Diagram 1	Current Practice MHEBT
Diagram 2	Future Practice MHEBT
Diagram 3	Application Context
Diagram 4	High Level Application Context
Diagram 5	Project Conceptual Data Mode
Figures	Title
Figure 1	Reminder Exchange Entry Selection

10.6. Required Technical Documents:

No additional technical documents are required for reference here.

Attachment A - Approval Signatures

Signed:
< *Integrated Project Team (IPT) Chair* >

Date:

Signed:
< *Business Sponsor* >

Date:

Signed:
< *IT Program Manager* >

Date:

Signed:
< *Project Manager* >

Date:

Signed:
< *Enterprise Architecture*>\

Date:

Signed:
< *Service Delivery and Engineering* >

Date:

Template Revision History

Date	Version	Description - EXAMPLES	Author
January 2012	2.3	Updated for 508 compliance	(NAME REDACTED)
August 2011	2.3	Updated to current ProPath documentation standards	(NAME REDACTED)
June 2011	2.2	Changed TAR to SEDR (section 2.5)	(NAME REDACTED)
May 2011	2.1	Amended Approval Signature instructions in Attachment A	(NAME REDACTED)
March 2011	2.0	Amended signature requirements	(NAME REDACTED)
November 2010	1.1	Minor changes to Approval Signatures page	(NAME REDACTED)
September 2010	1.0	Added template revision history and updated Approval Signature page to comply with PMAS 2.0	(NAME REDACTED)
September 2009	1.1	Removed “This Page Intentionally Left Blank” pages.	(NAME REDACTED)
July 2009	1.0	Initial OED ProPath release	(NAME REDACTED)

Document Approvals: