

EHR Changes for MU2: Overview of Changes

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Introduction

- This is a very high-level overview of changes in EHRp13, TIUp1011/1012, BHSp8, GMRAp1007, PXRv2.0p1001/1002.
- We will present the Integrated Problem List (IPL), Clinical Information Reconciliation (CIR), and CCDA tools in much more detail later in the training.
- We will offer more in-depth trainings on the EHR and related packages to include configuration tips and tricks when we are closer to release.
- We will offer an in-depth overview of Reminders 2.0 p1001/1002 when we are closer to release.

Approach as opportunity for improvement

- Software provides tools.
- Just because a process has existed for along time does not mean it is the optimal process.
- New tools provide opportunities to review clinical and business processes and leverage what will improve these processes
- Longitudinal problem documentation is not a new concept. Our tools did not well support this. The new tools better support longitudinal problem documentation and care planning.
- Documentation improvement is needed with ICD-9 and even more for ICD-10
- More data can now be exchanged and more data is transparent to patients.

Benefits Meaningful Use 2014 Adoption

- Increased Health information exchange
 - Health information exchange infrastructure
 - More data encoded with controlled vocabularies supports health information exchange (SNOMED CT®, LOINC, RxNORM, UNII)
- Longitudinal problem data collection and aggregation
 - Changes to problem data are logged and viewable
 - Care planning documentation available
 - Data aggregation of care provided for problems
- Increased transparency to patients
 - CCDA clinical summaries and PHR that include care planning
- Increased data security
 - Auditing
- Transition to ICD-10
 - Meaningful Use 2014 introduces a new process for documenting problems and encounter diagnoses that incorporates SNOMED CT® and maps to ICD.
 - Providers will already be accustomed to the new Integrated Problem List making ICD-10 transition relatively transparent.

What is SNOMED CT[®]?

Systematized **N**omenclature of **M**EDicine **C**linical **T**erms (SNOMED CT[®]) is a comprehensive, multilingual clinical terminology that provides clinical content and expressivity for clinical documentation.

Clinician friendly language to document clinical impressions, findings, and diagnoses.

What is SNOMED CT® ?

SNOMED CT® is a “controlled vocabulary”

- Each SNOMED CT® term is carefully defined by an international team of terminologists. The term is placed by the terminologist in a specific hierarchy with specific relationships.
- This is where the power of SNOMED CT® lies. Because the content is organized based on its clinical meaning, the information can be utilized more accurately and more thoroughly.
- ICD is also organized hierarchically, but its purpose is billing and utilization so the information cannot be extracted and grouped the same way.

Why change to the Integrated Problem List?

There were several required changes due to Meaningful Use 2014 incorporated into the EHR:

- SNOMED CT® for problem list
- Longitudinal problem-focused documentation including goals, care plans, and visit instructions
- Support for multidisciplinary problem documentation
- SNOMED CT® for much of the data used in Clinical Quality Measures
- Supports transition to ICD-10 for encounters

More About SNOMED CT®

- Extremely large set of concepts and descriptions representing many standard terminologies
- Scalable for a variety of uses
- Owned and maintained by the International Health Terminology Standards Development Organisation (IHTSDO) in Denmark
- Released in the U.S. by the National Library of Medicine (NLM)

Source: IHTSDO, www.snomed.org

SNOMED CT® Definitions

Clinical Expressions

Concept – the computer readable “code”

Example: 823660015 (concept for the disorder of the Common Cold)

Descriptions – explain concepts in a human readable expression

Example:

Common cold (disorder) – fully specified name which is unique

Common cold – preferred term

Cold – synonym

Head cold – synonym

Relationships – define the type of association between two related concepts

Example: Common Cold (disorder), a viral upper respiratory tract infection (disorder)

SNOMED CT[®]

Reduces Ambiguity

SNOMED CT[®] Definitions (cont.)

Scalability and Mapping

Subsets - reference sets, value sets - a collection of SNOMED CT[®] concepts used for a particular purpose

Example: Pick list, sub-search, drop down selection in EHR

Extensions - incorporate concepts, descriptions and terms unique to a particular region or country

Example: U.S. and U.K. have their own extensions

Cross maps - explicit links to health-related classifications and coding schemes such as ICD-9-CM and ICD-10

Example: SNOMED to ICD-9 map

SNOMED CT[®] in the RPMS EHR

Where will you see SNOMED CT[®] ?

- You will select SNOMED CT[®] terms instead of ICD-9 or ICD-10 codes for diagnoses and conditions on the problem list, and clinical indications when ordering labs, medications, and consults.
- SNOMED CT[®] codes will also be stored in the background in other areas of the EHR.

SNOMED CT[®] in the RPMS EHR (cont.)

What does this mean for the clinical user?

- The most significant change is a redesigned and redefined problem list.
- The way problems are entered and managed and how POVs are selected has been changed.

Mappings to ICD

Mappings are an integral part of the design of the Integrated Problem List and how SNOMED CT[®] will assist IHS with the transition to ICD-10.

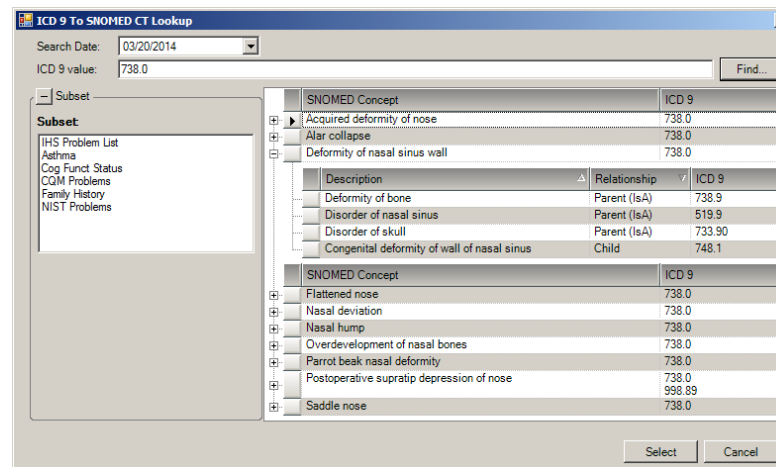
These mappings automate, only when appropriate, assignment of ICD codes.

Mappings are transparent to the user. They are visible when selecting a SNOMED, on the problem list, visit diagnosis, and clinical indications.

SNOMED CT® Related Maps Used in RPMS

ICD-9 to SNOMED CT® reverse map developed by Centers for Medicare and Medicaid Services (CMS) and released by the NLM

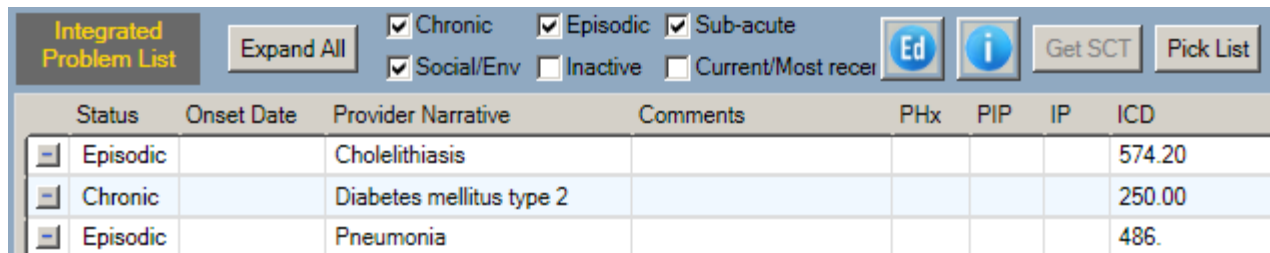
- **Use in EHR** - assist in the transition of problem lists to SNOMED



SNOMED CT[®] Related Maps Used in RPMS (cont.)

SNOMED CT[®] to ICD-9 – *provided by CMS and delivered **by** NLM*

- ***Use in EHR*** – for SNOMED problems and problems selected as POVs prior to ICD-10 transition



The screenshot shows a software interface for an 'Integrated Problem List'. At the top, there are several filter checkboxes: 'Chronic' (checked), 'Episodic' (checked), 'Sub-acute' (checked), 'Social/Env' (checked), 'Inactive' (unchecked), and 'Current/Most recent' (unchecked). There are also buttons for 'Expand All', 'Ed', 'i', 'Get SCT', and 'Pick List'. Below the filters is a table with the following columns: Status, Onset Date, Provider Narrative, Comments, PHx, PIP, IP, and ICD. The table contains three rows of data:

Status	Onset Date	Provider Narrative	Comments	PHx	PIP	IP	ICD
Episodic		Cholelithiasis					574.20
Chronic		Diabetes mellitus type 2					250.00
Episodic		Pneumonia					486.

SNOMED to ICD-9 Mapping Examples

SNOMED Term	ICD-9	Storage of Mapped Codes
Sunburn of second degree	Sunburn of second degree 692.76	1:1 This is a 1:1 match so will store in the POV when selected.
Diabetic Nephropathy	Diabetes with renal manifestations, type II or unspecified type, not stated as uncontrolled 250.00 Nephritis and nephropathy, not specified as acute or chronic, in diseases classified elsewhere 583.81	1:1: This is a 1:1 match so will store both ICD-9 codes. When problem is selected as POV, 2 POVs will store.
Ganglion of the wrist	Ganglion of joint 727.41	Narrow to Broad: Closest ICD-9 code is less specific than the SNOMED. This will store in POV when selected.

When there is no mapping available OR when the closest ICD-9 code is more specific than the SNOMED, then the system will assign .9999 un-coded. The code assigned by coders will depend on the SNOMED term selected and the remainder of the visit documentation.

INTEGRATED PROBLEM LIST

Integrated Problem List: MU Required Features

- SNOMED CT® Problem List
- Care Planning
- Treatment Regimen elements for CQM

The screenshot shows the 'Integrated Problem List' interface. At the top, there are filters for 'Chronic', 'Episodic', 'Sub-acute', 'Social/Env', 'Inactive', and 'Current/Most recent Inpatient'. Action buttons include 'Expand All', 'Ed', 'i', 'Get SCT', 'Pick List', 'POV', 'Add', 'Edit', and 'Delete'. Below the filters is a table with columns: Status, Onset Date, Provider Narrative, Comments, PHx, PIP, IP, and ICD.

Status	Onset Date	Provider Narrative	Comments	PHx	PIP	IP	ICD
Chronic	08/26/2013	Diabetes mellitus type 2					250.00
Chronic		Asthma really really bad asthma					493.90
Chronic		Herpes simplex					054.9
Chronic		*DEPRESSION					311.
Chronic		*TOBACCO DEPENDENCE					305.1

The screenshot shows the detailed view for 'Diabetes mellitus type 2' (Onset Date: 08/26/2013, ICD: 250.00). It features tabs for 'Latest' and 'All Active'. The main content is divided into three sections: 'Problem Info', 'Patient Instructions/Care Plan', and 'Visit Info'. The 'Problem Info' section includes a 'Goal Notes' box with the text 'HGBA1C <7' and 'Modified by: RICHARDS.SUSAN P 02/19/2014'. The 'Patient Instructions/Care Plan' section includes a 'Test Medical Care Plan' box with 'Modified by: RICHARDS.SUSAN P 02/19/2014' and a 'Test Nutritionist Care Plan' box with 'Modified by: RICHARDS.SUSAN P 02/19/2014'. The 'Visit Info' section includes a 'Visit Instructions' box with 'Test Visit instructions' and 'Modified by: RICHARDS.SUSAN P 02/18/2014', and a 'Care Plan Activities' box with 'Given a Visit Instruction :: Test Visit instructions'.

Integrated Problem List: IHS Additions

- Longitudinal data collection and aggregation
 - Changes in problem data are now stored and visible in the problem detail. This allows the user view the evolution of the problem over time.
 - Care planning is associated with problems
 - Some visit data is now associated with problems used as POVs
 - Visit Instructions
 - Patient Education (when entered about a problem)
 - Treatment/Regimen
 - Referrals (when problem selected as reason for referral)
 - Consults (when problem selected as clinical indication)

We encourage user requests for report views to aggregate problem data and care planning that will better suit needs in the field.

Integrated Problem List: IHS Additions (cont.)

- Reverse Mapping tool to assist with updating Problem List from ICD-9 to SNOMED
- Mapping to ICD-9 without user intervention
 - Data entry can still adjust coding when necessary and if un-coded after selected for POV
- POV selection from Problem List
- POV selection dialog
- Patient Ed documentation
- Expanded statuses
- Nationally vetted pick lists

Integrated Problem List: IHS Additions

Get SCT Reverse Mapping Tool

The screenshot displays a medical software interface with a menu bar at the top containing options like 'Notifications', 'Cover Sheet', 'Triage', 'Wellness', 'Problem Mngt', 'Prenatal', 'Well Child', 'Medications', 'Labs', 'Orders', 'Notes', 'Consults/Referrals', 'Superbill', 'O/C Summary', 'Suicide Form', and 'Reports'. Below the menu bar, there are several tabs including 'IPL', 'Family Hx', 'Surgical Hx', 'Pt Goals', 'Articzoog', 'Eyeglass', 'AMI', and 'Stroke'. The main area shows an 'Integrated Problem List' with columns for 'Status', 'Onset Date', 'Provider Narrative', 'Comments', 'PHx', 'PIP', 'IP', and 'ICD'. The list contains several entries, with the second entry, '*Cervical Spinal Stenosis', highlighted in orange. A dialog box titled 'ICD 9 To SNOMED CT Lookup' is open over the list. It has a 'Search Date' field set to '02/20/2014' and an 'ICD 9 value' field set to '723.0'. The dialog box shows a list of 'SNOMED Concept' entries with their corresponding 'ICD 9' values. The entry 'Spinal stenosis in cervical region' is selected and highlighted in blue. A red box highlights the 'Get SCT' button in the top right corner of the problem list interface. A large blue arrow points from the 'Get SCT' button to the selected entry in the dialog box.

Status	Onset Date	Provider Narrative	Comments	PHx	PIP	IP	ICD
Chronic		*Macular Degeneration (VET)					362.52
Chronic		*Cervical Spinal Stenosis					723.0
Chronic							286.9
Chronic							356.4
Chronic							.9999
Chronic							.9999
Chronic							724.5
Chronic							063.19
Chronic							272.2
Chronic							794.31
Chronic							564.09
Chronic							789.09
Chronic							401.9
Chronic							496.
Chronic							333.94
Chronic							455.6
Chronic							244.9
Chronic							413.9

Integrated Problem List: IHS Additions

POV Selection Tool with Options for Additional Care Planning and Patient Education Documentation

ID	Status	Prov. Narrativ	POV	Episodicity	Prov. Text	Goal Notes	Care Plans	Visit Instructions	Pt Ed	Tx/Regimen/ FU	Tx/Regimen/FU display only
4944	Chronic	Diabetes mellitus type 2	<input checked="" type="checkbox"/>	<input type="radio"/> First episode <input type="radio"/> New episode <input type="radio"/> Old episode <input type="radio"/> Ongoing episode <input type="radio"/> Undefined episodicity		HGBA1C <7	Tesst Nutritionist Care Plan	Test Visit instructions	<input type="checkbox"/> DP <input type="checkbox"/> MED <input type="checkbox"/> EX <input type="checkbox"/> N <input type="checkbox"/> LA <input type="checkbox"/> P	Treatment/Regimen	Given a Visit Instruction :: Test Visit inst
3128	Chronic	Asthma really really bad asthm	<input checked="" type="checkbox"/>	<input type="radio"/> First episode <input type="radio"/> New episode <input type="radio"/> Old episode <input type="radio"/> Ongoing episode <input type="radio"/> Undefined episodicity					<input type="checkbox"/> DP <input type="checkbox"/> MED <input type="checkbox"/> EX <input type="checkbox"/> N <input type="checkbox"/> LA <input type="checkbox"/> P	Treatment/Regimen	
3128	Chronic	Herpes simplex	<input checked="" type="checkbox"/>	<input type="radio"/> First episode <input type="radio"/> New episode <input type="radio"/> Old episode <input type="radio"/> Ongoing episode <input type="radio"/> Undefined episodicity					<input type="checkbox"/> DP <input type="checkbox"/> MED <input type="checkbox"/> EX <input type="checkbox"/> N <input type="checkbox"/> LA <input type="checkbox"/> P	Treatment/Regimen	

Primary POV

Diabetes mellitus type 2 ▼

Integrated Problem List: IHS Additions Care Planning and Patient Education Documentation

Integrated Problem Maintenance - Edit Problem

Problem ID TST-8 Priority 0 Pregnancy Related Use as POV Primary Save Cancel

* SNOMED CT Diabetes mellitus type 2 Get SCT Pick list

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

* Required Field

Provider Text

Diabetes mellitus type 2 250.00

Qualifiers Severity: Clinical Course

Severity Clinical Course Episodicities

Date of Onset 08/26/2013 Is Injury

Comments Add Delete

Narrative Date Author

Care Plan Info

Add Visit Instruction / Care Plans / Goal Activities

Goal Notes

Care Plans

Visit Instructions

Care Planning Activities

Add Visit Instructions / Care Plans / Goal Notes / Care Planning Activities

Visit Instructions

Date 02/19/2014

Goal Notes

Date 02/19/2014

Care Plans

Date 02/19/2014

Patient Education provided

Disease Process Nutrition

Exercise Lifestyle Adaptation

Medications Prevention

Treatment/Regimen/Follow-up

Current Visit - Care Planning Activities

Treatment/Regimen/Follow-up

Education Provided

OK Cancel

Integrated Problem List: IHS Additions

Pick List Examples

PickList Selection

Manage PickLists

PickList SNOMEDCT Desc

11

ABNORMAL FINDINGS *
CASE MANAGEMENT
CQM Problems
CQM PROBLEMS
CQM Problems for test
DIABETIC RETINOPATHY
Eye General
EYE GENERAL
IMMUNIZATIONS
MAN test picklist
New
New Picklist
New Picklist 1
NIST PROBLEMS
NUTRITION
PICK Prenatal - Problem Pregnancy
PICK Public Health Nursing
PICK Womens Health
Prenatal - Care
Test Import Subset
Test Picklist
Test Picklist womens health
Test Picklist2

BH

Alcoholism

Chronic major depressive disorder, single episode

Family tension

Generalized anxiety disorder

Home unsettled

Insomnia

Juvenile

Major depression single episode, in partial remission

Major depressive disorder

Noncompliance with treatment

Severe depression

CARDIAC 10

Acute infarction of papillary muscle

Aortic valve disorder

Atrial fibrillation and flutter

Benign hypertension

Chronic atrial fibrillation

High output heart failure

Hypertensive disorder

Left coronary artery occlusion

Moderate left ventricular systolic dysfunction

Myocardial infarction

ENDOCRINE 10

Diabetes mellitus

Diabetes mellitus type 2

Cancel Save

PickList Selection

Manage PickLists

PickList SNOMEDCT Desc

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ABNORMAL FINDINGS *
CASE MANAGEMENT
CQM Problems
CQM PROBLEMS
CQM Problems for test
DIABETIC RETINOPATHY
Eye General
EYE GENERAL
IMMUNIZATIONS
MAN test picklist
New
New Picklist
New Picklist 1
NIST PROBLEMS
Nutrition
NUTRITION
PICK Prenatal - Problem Pregnancy
PICK Public Health Nursing
PICK Womens Health
Prenatal - Care
Test Import Subset
Test Picklist
Test Picklist womens health
Test Picklist2

Combined hepatitis A and B vaccination

Drug declined by patient - patient beliefs

Human vaccination

Immunization consent not given

Immunization contraindicated

Immunization refused

Immunization/vaccination management

Influenza vaccination

Measles mumps and rubella booster vaccination

Medical C/I - immunization

Pneumococcal vaccination

Poliomyelitis vaccination

Tetanus diphtheria vaccination

Vaccination for diphtheria, pertussis, and tetanus

Vaccination with third dose of human papillomavirus

Vaccines allergy

Varicella vaccination

Cancel Save

MU2 Data Captured by IPL

Feature	Required for Performance Measure?	Meets MU requirement
Problems: SNOMED CT® encoded	No	MU2 rule, CQM data capture
POV selected from problem: SNOMED CT® passed to V POV	No	CQM data capture
Goal Notes	No	MU2 rule, displays on CCDA
Care Plan Notes	No	MU2 rule, displays on CCDA
Visit Instructions	No	MU2 rule, displays on CCDA (CS)
Tx/Regiment/Followup	No	CQM data capture
Patient Education	No	CQM date capture, CCDA

Preparing for Transition

Clean up problem lists - this is the single most important task your site can do to prepare for the IPL transition.

- Remove/consolidate redundant problem entries.
- Remove entries that do not belong on the problem list.
- Inactivate resolved problems.
- Code the un-coded problems – your data entry/coders can assist by running the Uncoded Problem report and coding the entries.

CCDA DOCUMENT GENERATION

Clinical Summary: MU Required Features

Generate Clinical Summary
Customize Clinical Summary



Clinical Summary from 2013 DEMO HOSPITAL

Patient: CDSADULT DEMO
Date of Birth: March 25, 1965
Race: American Indian or Alaska Native
Preferred Language:
HR#: XFA: 999998
Sex: Female
Ethnicity:

Visit Date: January 14, 2014
Visit Location: 2013 DEMO HOSPITAL; UPTOWN USA; ALBUQUERQUE, NE 89701

Table of Contents

- Reason for Visit
- Problems/Encounter Diagnoses
- Allergies, Adverse Reactions, Alerts
- Medications
- Procedures
- Today's Instructions and Patient Decision Aids
- Plan of Care
- Social History (Smoking Status)
- Recent Lab Results
- Immunizations
- Recent Vital Signs
- Care Team

Reason for Visit

No Reason Information for the extraction criteria

Problems/Encounter Diagnoses

Active:

- Diabetes mellitus | [73211009]; 01/14/2014

Inactive (personal history):

- None

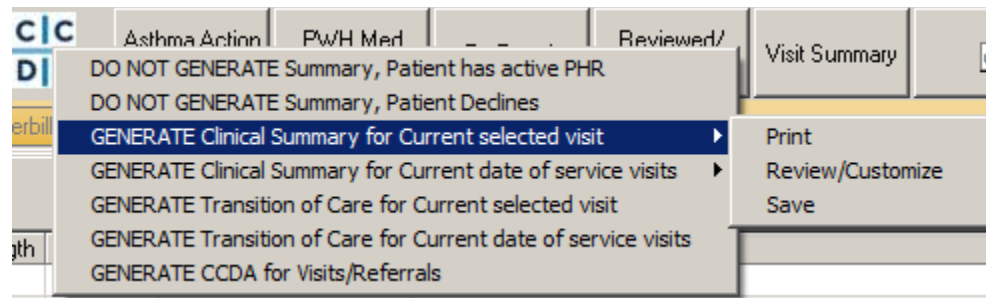
*Reasons for today's visit

The screenshot displays the 'CCDA - Clinical Summary' application window. The patient information is consistent with the text above. The left pane shows a tree view of the clinical summary components, with checkboxes for each section. The right pane shows a preview of the generated summary, including a 'Table of Contents' and 'Reason for Visit' section. The bottom of the window features navigation buttons for document pages and a status bar with 'Finalized', 'Print', 'Save', and 'Cancel' options.

Clinical Summary: IHS Additions

Smart tool allows:

- Easy generation of summary.
- Documentation of education if access to PHR.
- Documentation of refusal.



Transitions of Care: IHS Additions

GENERATE CCDA for Visits/Referrals

Patient: Everyman,Adam | HR#: 147085

Clinical Summary Transition of Care

Visits Referrals

- 8_15_2012
 Visit Detail: (Time: 9:22 AM; Location: GET WELL CLINIC; Status: AMBULATORY; ID: 208384)
- 8_14_2012
 Visit Detail: (Time: 12:00 PM; Location: PA PHARMACY; Status: AMBULATORY; ID: 2083881)
- 3_30_2012
 Visit Detail: (Time: 8:04 AM; Location: GET WELL CLINIC; Status: AMBULATORY; ID: 208435)
- 11_7_2011
 Visit Detail: (Time: 8:51 AM; Location: DEMO CLINIC; Status: EVENT (HISTORICAL); ID: 208435)
- 9_25_2011
 Visit Detail: (Time: 12:00 AM; Location: GET WELL CLINIC; Status: AMBULATORY; ID: 208435)
- 8_29_2011
 Visit Detail: (Time: 5:52 PM; Location: GET WELL CLINIC; Status: EVENT (HISTORICAL); ID: 208435)
- 12_3_2010
 Visit Detail: (Time: 5:53 PM; Location: GET WELL CLINIC; Status: EVENT (HISTORICAL); ID: 208435)

Print Save Review/Customize Cancel

GENERATE CCDA for Visits/Referrals

Patient: Everyman,Adam | HR#: 147085

Clinical Summary Transition of Care

Visits Referrals

- 8/15/2012
 - Visit Detail: (Time: 9:22 AM; Location: GET WELL CLINIC; Status: AMBULATORY)
 - Reference Detail: (Ref#: 134563; RefType: Pulmonary function test; Status: ACTIVE; Vendor: ...)

Submit Save Review/Customize Cancel

Transition of Care: MU Required Features

Generate ToC
Customize ToC
Transmit ToC



Transitions of Care from 2013 DEMO HOSPITAL

Patient: HR#: XFA: 147190
Date of Birth: May 1, 1947 Sex: Female
Race: White Ethnicity: Not Hispanic or Latino
Preferred Language: English

Visit Date: February 13, 2014
Visit Location: 2013 DEMO HOSPITAL; UPTOWN USA; ALBUQUERQUE, NE 89701

Table of Contents

- [Problems/Encounter Diagnoses](#)
- [Allergies, Adverse Reactions, Alerts](#)
- [Medications](#)
- [Procedures](#)
- [Reason for Referral](#)
- [Plan of Care](#)
- [Functional/Cognitive Status](#)
- [Social History \(Smoking Status\)](#)
- [Recent Lab Results](#)
- [Immunizations](#)
- [Recent Vital Signs](#)
- [Care Team](#)

Problems/Encounter Diagnoses

Active:

- *Community acquired pneumonia | [385093006]; 08/06/2012

Inactive (personal history):

- Asthma | [195967001]; 02/18/2014

*Reasons for today's visit

Allergies, Adverse Reactions, Alerts

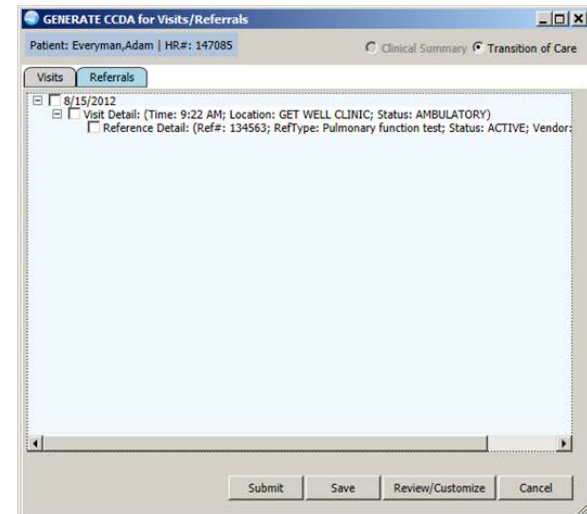
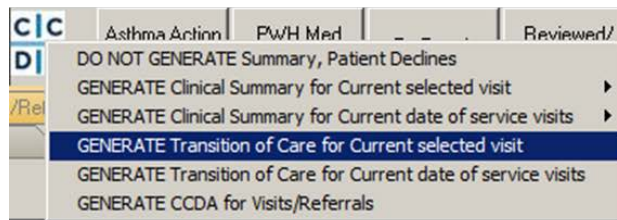
Active allergies:

The screenshot shows a software window titled "CCDA - Transition of Care" for patient HR# 141177. The window is divided into several sections. On the left, there is a "Clinical Document" list with expandable categories like "Problems/Encounter Diagnoses" and "Medications". The main area on the right displays the "Transitions of Care from 2013 DEMO HOSPITAL" page, which includes patient demographics (Date of Birth: February 8, 1965; Race: American Indian or Alaska Native), a "Table of Contents" with links to various data sections, and a "Problems/Encounter Diagnoses" section listing active conditions like "TOBACCO DEPENDENCE [305.1]; 10/27/2009" and "Herpes simplex [08594005]; 02/18/2014". The interface includes standard window controls and a "Finalized" status indicator at the bottom.

Transition of Care: IHS Additions

Smart tool allows:

- Generation by visit(s) or RCIS referral.
- Defaults to print, fax, or transmit based on data in Vendor file of RCIS.



Measure

Clinical summaries provided to patients within ***one business day*** for more than 50 percent of office visits.

******* Access to PHR, Refusals count in numerator.

Measure: ToC

Measure 1:

The EP who transitions or refers their patient to another setting of care or provider of care **provides a summary of care** record for more than **50 percent** of transitions of care and referrals.

Measure 2:

The EP who transitions or refers their patient to another setting of care or provider of care provides a summary of care record for more than **10 percent** of such transitions and referrals **electronically transmitted** using certified EHR technology (CEHRT) to a recipient.

Measure 3:

An EP must satisfy one of the following criteria:

- Conducts one or more successful electronic exchanges of a summary of care document, part of which is counted in "measure 2" (for EPs the measure at §495.6(j)(14)(ii)(B) with a recipient who has EHR technology that was developed designed by a different EHR technology developer than the sender's EHR technology certified to 45 CFR 170.314(b)(2).
- Conducts one or more successful tests with the CMS designated test EHR during the EHR reporting period.

MU2 Data Captured by CCDA

Feature	Required for Performance Measure?	Meets MU requirement
Generate ToC	Yes	MU2 rule
Transmit ToC	Yes	MU2 rule
Generate Clinical Summary	Yes	MU2 rule
Refused Clinical Summary	Yes	MU2 rule

VIEWING SUMMARY DOCUMENTS

View Summaries in CIR Tool

View CCD and scanned summaries
View CCDA summaries



CIR Tool - Shared_Thomas H

Generated by CCDA

Select	Source	Responsible Party	Encounter Date	Created	Class	Recorded
<input checked="" type="checkbox"/>	Hennepin Clin	Thomas Henry, MD	From January 06, 2010	1/6/2010 4:37:46 PM	CCD	
<input type="checkbox"/>	Hennepin Clin	Thomas Henry, MD	From March 15, 2010	3/20/2010 3:02:19 PM	CCD	
<input type="checkbox"/>	Hennepin Clin	Thomas Henry, MD	From March 15, 2010	3/20/2010 3:02:25 PM	CCD	
<input type="checkbox"/>	Hennepin Clin	Thomas Henry, MD	From March 23, 2010	3/23/2010 1:46:21 PM	CCD	

Problems Addressed Reactions Medications

Continuity of Care Record

Date Created: 2/5, 2010 at 01:15 PM UTC-05:00
 From: Thomas Henry MD (Personal Physician)
 To: Interested AnyPerson (Interested Party)
 Purpose: Transfer of Care

Patient Demographics

Name	Date of Birth	Gender	Identification Numbers / Phone
John Stuart	15, 1953	Male	9990799509 5759 Hazel Street Williamsport, PA 17701 +1-570-898-2169

Alerts

Type	Type Code	Date	Code	Description	Reaction	Source
Drug Allergy	416098002 (SNOMED CT)	6/27/96	293597301 (SNOMED CT) 2670 (RxNorm)	Codine allergy	Hives, nausea	Thomas Henry MD
Drug Allergy	416098002 (SNOMED CT)	3/25/04	2943623004 (SNOMED CT)	Indomethacin allergy	Nausea, dizziness, headache	Thomas Henry MD

Problems

Type	Date	Code	Description	Status	Source
Finding	5/5/05	414.01 (ICD9-CM) 5374.1008 (SNOMED CT)	Coronary Artery Disease (CAD)	Chronic	Thomas Henry MD
Symptom	5/5/05	401.9 (ICD9-CM) 59621000 (SNOMED CT)	Hypertension, Essential	Active	Thomas Henry MD

Recalled Problems

Problems Status Count Last Date

CIR Tool - Shared_Thomas H

Generated by CCDA

Select	Source	Responsible Party	Encounter Date	Created	Class	Recorded
<input type="checkbox"/>	Hennepin Clin	Thomas Henry, MD	From January 06, 2010	1/6/2010 4:37:46 PM	CCD	
<input checked="" type="checkbox"/>	Hennepin Clin	Thomas Henry, MD	From March 23, 2010	3/23/2010 1:46:21 PM	CCD	
<input type="checkbox"/>	Hennepin Clin	Thomas Henry, MD	From March 15, 2010	3/20/2010 3:02:19 PM	CCD	
<input type="checkbox"/>	Hennepin Clin	Thomas Henry, MD	From March 15, 2010	3/20/2010 3:02:25 PM	CCD	

Problems Addressed Reactions Medications

Patient Summary - Ambulatory

Patient: John Stuart
 Date of birth: February 15, 1953, 11:23:00 AM
 Contact info: 5759 Hazel Street, Williamsport, PA 17701
 Document ID: 949998-1262-653-95030907.2.18.846.1.1.13853.72
 Document Created: April 6, 2010, 11:09:45, EST
 Author: Thomas Henry, MD, Hennepin Clinic
 Contact info: 3344 Super Street, Williamsport, PA 17701

Table of Contents

- Problems
- Reactions
- Alerts and Adverse Reactions
- Test Results

Problems

Type	SNOMED CT	SNOMED CT	Problem	Date Diagnosed	Status
Finding	414.01	5374.1008	Coronary Artery Disease (CAD), Coronary Arteriosclerosis	05/05/2005	Active
Symptom	401.9	59621000	Hypertension, Essential	6/7/2006	Active
Diagnosis	493.0	193981001	Asthma	12/21/2002	Active

Recalled Problems

Problems Status Count Last Date

View Summaries in CIR Tool (cont.)

The screenshot shows the CIR Tool interface. At the top, there are buttons for 'Restore' and 'Visit', and a dropdown for 'CCDA Source'. Below this is a table of records generated by CCDA. A context menu is open over the first record, listing various clinical data categories. A yellow arrow points from this menu to a separate window titled 'CCDA - Clinical Summary'. This window displays patient information, visit details, a table of contents, and a detailed view of 'ALLERGIES, ADVERSE REACTIONS, ALERTS'.

Select	Source	Responsible Party	Encounter Date	Created	Class	Reconciled
<input checked="" type="checkbox"/>	Get Well Clinic	Dr Henry Seven	From August 06, 2012	1/8/2014 4:20:47 PM	CCDA	AG1/10/20
<input type="checkbox"/>	Get Well Clinic	Dr Henry Seven	From August 06,			
<input type="checkbox"/>	Get Well Clinic	Dr Henry Seven	From August 06,			
<input type="checkbox"/>	Get Well Clinic	Dr Henry Seven	From August 06,			

Problem	Status	Onset
+ Hypoxemia	INACTIVE	08/06/2012
+ Community acquired pneumonia	CHRONIC	08/06/2012
+ Asthma	INACTIVE	01/03/2007

CCDA - Clinical Summary

Get Well Clinic: Health Summary

Patient: Isabella Jones **HR#:**
Date of Birth: May 1, 1947 **Sex:** Female
Race: White **Ethnicity:** Not Hispanic or Latino
Preferred Language: English

Visit Date: August 6, 2012, 00:28 +0500 to August 6, 2012, 00:58 +0500
Visit Location:

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- [ALLERGIES, ADVERSE REACTIONS, ALERTS](#)
- [ENCOUNTERS](#)
- [IMMUNIZATIONS](#)
- [Medications](#)
- [CARE PLAN](#)
- [REASON FOR REFERRAL](#)
- [PROBLEMS](#)
- [PROCEDURES](#)
- [FUNCTIONAL STATUS](#)
- [RESULTS](#)
- [SOCIAL HISTORY](#)
- [VITAL SIGNS](#)
- [Care Team](#)

ALLERGIES, ADVERSE REACTIONS, ALERTS

Substance	Reaction	Severity	Status
Penicillin G benzathine	Hives	Moderate to severe	Inactive
Cocaine	Shortness of	Moderate	Active

MU2 View Summaries

Feature	Required for Performance Measure?	Meets MU requirement
View documents	No	MU2 rule

INCORPORATION

Incorporation of CCDA Data: MU Required Features

Data to be incorporated from CCDA:

Problems

Allergies

Medications



- View on single screen data from EHR/RPMS and incoming CCDA.
- Incorporate with electronic facilitation data from CCDA into the EHR/RPMS.
- Display reconciled list on single view.

Incorporation of CCDA Data: MU Required Features (cont.)

The image shows two screenshots of the CIR Tool software interface, illustrating the process of incorporating CCDA data into a patient's problem list. A yellow arrow points from the first screenshot to the second, indicating a transition or action.

Top Screenshot (Initial State):

- Generated by CCDA Table:**

Select	Source	Responsible Party	Encounter Date	Created	Class	Reconciled
<input type="checkbox"/>	Get Well Clinic	Dr Henry Seven	From August 06, 2012	1/8/2014 4:20:47 PM	CCDA	A(1/10/2014); P(1/10/2014); M(1/10/2014)
<input checked="" type="checkbox"/>	Get Well Clinic	Dr Henry Seven	From August 06, 2012	1/6/2014 3:29:01 PM	CCDA	M(2/13/2014)
<input type="checkbox"/>	Get Well Clinic	Dr Henry Seven	From August 06, 2012	11/19/2013 1:45:49 PM	CCDA	
<input type="checkbox"/>	Get Well Clinic	Dr Henry Seven	From August 06, 2012	11/8/2013 2:24:50 PM	CCDA	
- RPMS Table:**

Problem	Status	Onset	Last Date
Hypoxemia	INACTIVE	08/06/2012	10/4/2013
Community acquired pneumonia	CHRONIC	08/06/2012	10/4/2013
Asthma	INACTIVE	01/03/2007	10/4/2013
- Clinical Document Table:**

Problem	Status	Onset	Source	Last Date
Pneumonia	ACTIVE	08/06/2012	Dr Henry Seven	08/06/2012
Asthma			Dr Henry Seven	08/06/2012
- Reconciled Problems Table:**

Problem	Status	Onset	Action
Hypoxemia	Inactive	08/06/2012	RPMS
Community acquired pneumonia	Chronic	08/06/2012	RPMS
Asthma	Inactive	01/03/2007	RPMS

Bottom Screenshot (Final State):

- Generated by CCDA Table:** (Identical to the top screenshot)
- RPMS Table:**

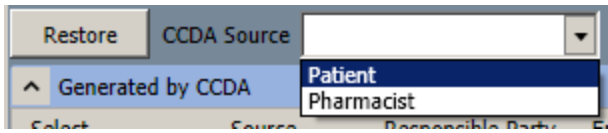
Problem	Status	Onset	Last Date
Hypoxemia	INACTIVE	08/06/2012	10/4/2013
Community acquired pneumonia	CHRONIC	08/06/2012	10/4/2013
Asthma	INACTIVE	01/03/2007	10/4/2013
- Clinical Document Table:**

Problem	Status	Onset	Source	Last Date
Asthma	ACTIVE	01/03/2007	Dr Henry Seven	08/06/2012
Pneumonia	ACTIVE	08/06/2012	Dr Henry Seven	08/06/2012
- Reconciled Problems Table:**

Problem	Status	Onset	Action
Hypoxemia	Inactive	08/06/2012	RPMS Reviewed, No Action
Community acquired pneumonia	Chronic	08/06/2012	RPMS Reviewed, No Action
Asthma	Inactive	01/03/2007	RPMS Reviewed, No Action
Pneumonia	Inactive	08/06/2012	CCDA: Add Problem

Incorporation of CCDA: IHS Additions

- Ability to incorporate data from other sources such as patient report or caregiver.
 - Site parameter that is populated with site-determined choices.



- Then may use the Add buttons to add new entries or right click options to edit the RPMS list.

Incorporation of CCDA: IHS Additions (cont.)

CIR Tool -

Restore CCDA Source Patient

Generated by CCDA

Select	Source	Responsible Party	Encounter Date	Created
<input type="checkbox"/>	Get Well Clinic	Dr Henry Seven	From August 06, 2012	1/8/2014 4:20:47 PM
<input type="checkbox"/>	Get Well Clinic	Dr Henry Seven	From August 06, 2012	1/6/2014 3:29:01 PM
<input type="checkbox"/>	Get Well Clinic	Dr Henry Seven	From August 06, 2012	11/19/2013 1:45:49 PM
<input type="checkbox"/>	Get Well Clinic	Dr Henry Seven	From August 06, 2012	11/8/2013 2:24:50 PM
<input checked="" type="checkbox"/>	Patient	RICHARDS,SUSAN P	From February 20, 2014	2/20/2014 3:04:55 PM

Problems Adverse Reactions Medications

RPMS

Causative Agent	Event	Symptoms	Status	Last Date
ASPIRIN 41609	DRUG ALLERGY 41609	HIVES Change	ACTIVE	9/18/2013
CODEINE 41609	DRUG 41609	RPMS: Reviewed, No Action Entered in Error	CTIVE	9/18/2013
PENICILLIN G BENZ 600000 SYRINGE 41609	DRUG 41609	Inactivate View Details	CTIVE	8/22/2013

Add Allergy Accept Adverse Reactions Cancel

Action

RPMS: Reviewed, No Action

RPMS: Reviewed, No Action

RPMS: Reviewed, No Action



CIR Tool - Jones,Isabella

Restore CCDA Source Patient Accept All Cancel All

Generated by CCDA

Select	Source	Responsible Party	Encounter Date	Created	Class	Reconciled
<input type="checkbox"/>	Get Well Clinic	Dr Henry Seven	From August 06, 2012	1/8/2014 4:20:47 PM	CCDA	A(1/10/2014); P(1/10/2014); M(1/10/2014)
<input type="checkbox"/>	Get Well Clinic	Dr Henry Seven	From August 06, 2012	1/6/2014 3:29:01 PM	CCDA	M(2/13/2014)
<input type="checkbox"/>	Get Well Clinic	Dr Henry Seven	From August 06, 2012	11/19/2013 1:45:49 PM	CCDA	
<input type="checkbox"/>	Get Well Clinic	Dr Henry Seven	From August 06, 2012	11/8/2013 2:24:50 PM	CCDA	
<input checked="" type="checkbox"/>	Patient	RICHARDS,SUSAN P	From February 20, 2014	2/20/2014 3:04:55 PM		

Problems Adverse Reactions Medications

RPMS

Causative Agent	Event	Symptoms	Status	Last Date
ASPIRIN	DRUG ALLERGY 4160998002	HIVES	ACTIVE	9/18/2013
CODEINE	DRUG ALLERGY 416098002	SHORTNESS OF BREATH	INACTIVE	9/18/2013
PENICILLIN G BENZ 600000 SYRINGE	DRUG ALLERGY 416098002	HIVES	INACTIVE	8/22/2013

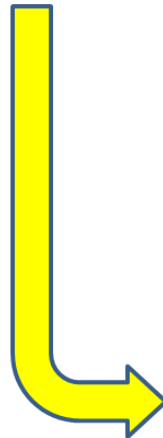
Clinical Document

Causative Agent	Event	Symptom	Status	Source	Last Date
ASPIRIN	DRUG ALLERGY 416098002	HIVES	RPMS: Reviewed, No Action		
CODEINE	DRUG ALLERGY 416098002	SHORTNESS OF BREATH	RPMS: Reviewed, No Action		
PENICILLIN G BENZ 600000 SYRINGE	DRUG ALLERGY 416098002	HIVES	RPMS: Reviewed, No Action		
LISINAPRIL	DRUG INTOLERANCE	ITCHING,WATERING EYES	RPMS: Add		
ASPIRIN RELATED MEDICATIONS	DRUG ALLERGY	HIVES, DROWSINESS	RPMS: Changed		

Reconciled Adverse Reactions

Add Allergy Accept Adverse Reactions Cancel

Causative Agent	Event	Symptoms	Action
ASPIRIN	DRUG ALLERGY 416098002	HIVES	RPMS: Reviewed, No Action
CODEINE	DRUG ALLERGY 416098002	SHORTNESS OF BREATH	RPMS: Reviewed, No Action
PENICILLIN G BENZ 600000 SYRINGE	DRUG ALLERGY 416098002	HIVES	RPMS: Reviewed, No Action
LISINAPRIL	DRUG INTOLERANCE	ITCHING,WATERING EYES	RPMS: Add
ASPIRIN RELATED MEDICATIONS	DRUG ALLERGY	HIVES, DROWSINESS	RPMS: Changed



Medication Reconciliation Measure

The EP who performs medication reconciliation for more than 50 percent of transitions of care in which the patient is transitioned into the care of the EP.

*** Reconciliation may be done using CIR, manually updating meds on Medication Management component, or clicking on Chart Review component.

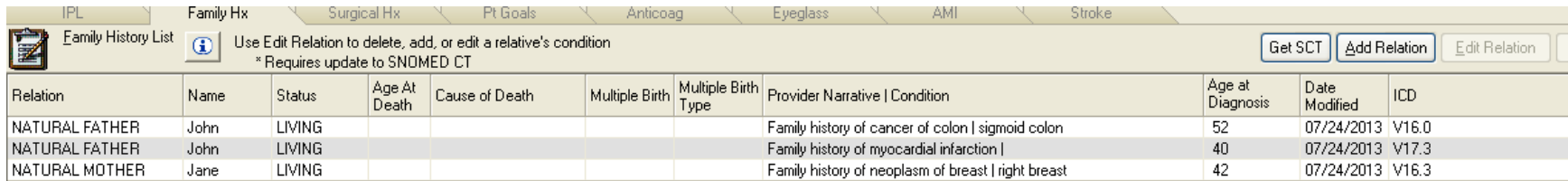
MU2 Data Captured by CCDA

Feature	Required for Performance Measure?	Meets MU requirement
Document reconciled	No	MU2 rule
Item reconciled	No	MU2 Rule
V Updated/ Reviewed stores when reconcile meds, allergies, problems	Yes – but not only way to perform med reconciliation	MU2 Rule
SNOMED stores in V Updated/ Reviewed when reconcile meds	No – and not only way to have SNOMED for med rec stored in background	CQM data capture

FAMILY HISTORY

Family History: MU Required Features

SNOMED CT for Family History Conditions



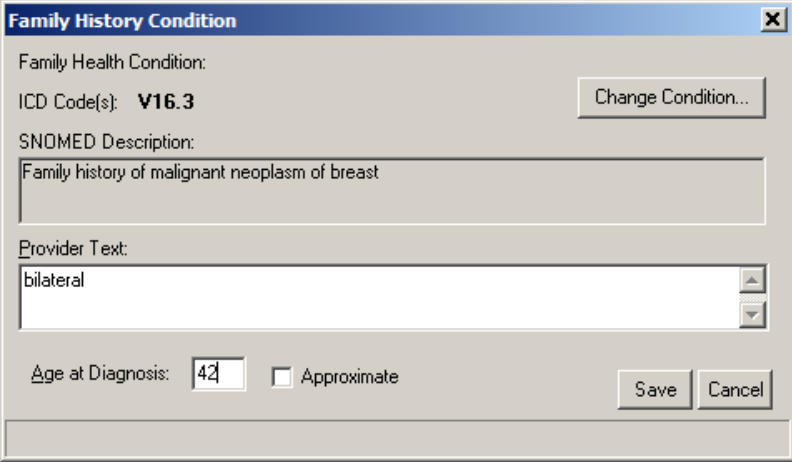
The screenshot shows a software interface with a navigation bar at the top containing tabs for 'IPL', 'Family Hx', 'Surgical Hx', 'Pt Goals', 'Anticoag', 'Eyeglass', 'AMI', and 'Stroke'. Below the navigation bar is a header area with a 'Family History List' icon and text: 'Use Edit Relation to delete, add, or edit a relative's condition * Requires update to SNOMED CT'. To the right of this text are three buttons: 'Get SCT', 'Add Relation', and 'Edit Relation'. Below the header is a table with the following data:

Relation	Name	Status	Age At Death	Cause of Death	Multiple Birth	Multiple Birth Type	Provider Narrative Condition	Age at Diagnosis	Date Modified	ICD
NATURAL FATHER	John	LIVING					Family history of cancer of colon sigmoid colon	52	07/24/2013	V16.0
NATURAL FATHER	John	LIVING					Family history of myocardial infarction	40	07/24/2013	V17.3
NATURAL MOTHER	Jane	LIVING					Family history of neoplasm of breast right breast	42	07/24/2013	V16.3

Family History: IHS Additions

Ability to document actual age of onset for documented conditions.

Ability to note “approximate” for age of onset.



The screenshot shows a dialog box titled "Family History Condition" with a close button (X) in the top right corner. The dialog contains the following fields and controls:

- Family Health Condition:** A label above the ICD Code(s) field.
- ICD Code(s):** A text field containing "V16.3". To its right is a button labeled "Change Condition...".
- SNOMED Description:** A text area containing "Family history of malignant neoplasm of breast".
- Provider Text:** A text area containing "bilateral".
- Age at Diagnosis:** A text field containing "42". To its right is a checkbox labeled "Approximate", which is currently unchecked.
- Buttons:** "Save" and "Cancel" buttons are located at the bottom right of the dialog.

Family Health History Measure

More than 20 percent of all unique patients seen by the EP during the EHR reporting period have a structured data entry for one or more first-degree relatives.

MU2 Data Captured by Family History

Feature	Required for Performance Measure?	Meets MU requirement
Enter relation	Yes	MU2 rule
Condition: SNOMED CT [®] encoded	No	MU2 rule

Preparing for Transition

Update your family history:

- Many sites have not fully converted the family history after the transition to the new component in EHRp6.

ALLERGIES

Allergies:

MU Required Features

- RxNorm, UNII for causative agents
- SNOMED CT[®] for Signs/Symptoms
- SNOMED CT[®] for drug/reaction combinations

Allergies: IHS Additions

- Encoded data is stored in the background.
- No significant changes for the EHR user.

MU2 Data Captured by Allergies/ADR

Feature	User Input Required for Performance Measure?	Meets MU requirement
Causative agent: RxNorm/UNII for ingredients	No	MU2 Rule, CCDA
Signs/symptoms: SNOMED CT® for signs/symptoms	No	CCDA
Causative agent/Signs/symptoms: SNOMED CT® for drug/reaction combinations	No	CQM data capture

Preparing for Transition

- Review Policies and Procedures.
- Review Package settings.
 - Divisions
 - Auto-verify settings
 - “Top 10” sign/symptom list
- Review reactions on problem lists.
 - Reports available for this.
 - Ensure these are also in the Adverse Reaction package.
- Review Adverse Reaction “clean up” lists.

VITAL SIGNS

Vital Signs: MU Required Features

- Ability to enter height, weight, and blood pressure
- LOINC and SNOMED CT encoding

No change on front end for clinical users.
Background mapping/storage of needed codes.

Vital Signs Measure

More than 80 percent of all unique patients seen by the EP have blood pressure (for patients age three and over only) and/or height and weight (for all ages) recorded as structured data.

MU2 Data Captured by Vital Signs

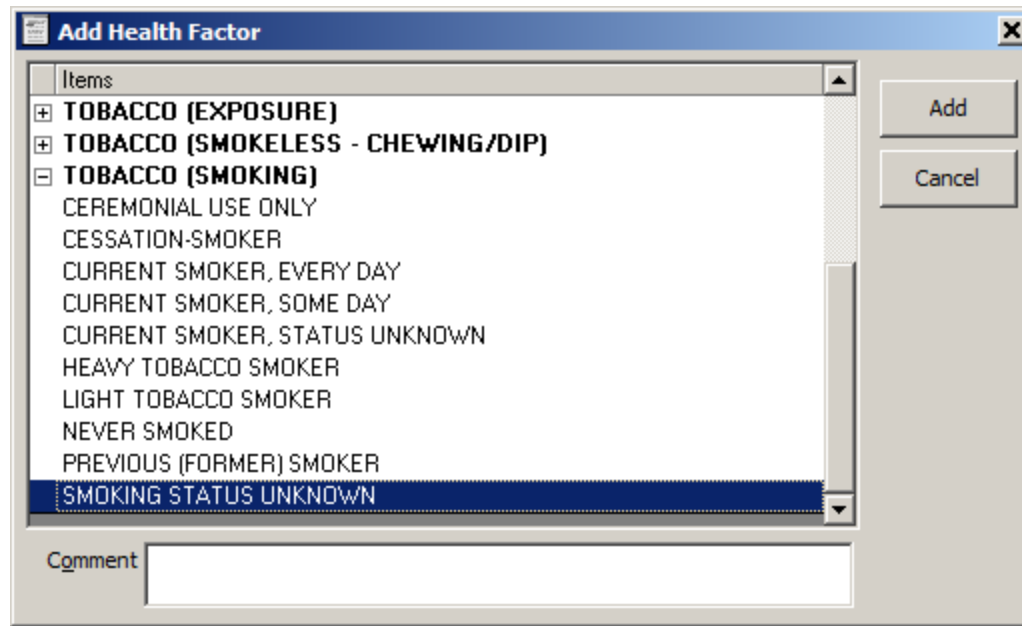
Feature	User Input Required for Performance Measure?	Meets MU requirement
Capture of measurements as structured data	Yes	MU2 Rule
SNOMED CT®	No	CQM data capture

SMOKING STATUS

Smoking Status: MU Required Features

SNOMED CT® encoded

Two new statuses



Smoking Status: IHS Additions

- SNOMED CT[®] is stored in background when smoking status stored by Health Factor component, Superbill association, reminder dialog.
- No significant change for users.
- EHR Reminder Dialogs updated.

Smoking Status Measure

- More than **80 percent** of all unique patients 13 years old or older seen by the EP have smoking status recorded as structured data.

MU2 Data Captured by Smoking Status

Feature	Required for Performance Measure?	Meets MU requirement
Enter smoking status	Yes	MU2 rule
SNOMED CT [®] encoded	Yes – stored in background, no additional user input required	MU2 rule

INFANT FEEDING

Infant Feeding: MU Required Features

- SNOMED CT[®] encoded feeding choices
- Added secondary fluids if not exclusively breast or formula fed

Infant Feeding Choice [X]

Exclusively Breastfeed

1/2 Breast 1/2 Formula

Formula only

Mostly Breastfeed

Mostly Breastfeed, some Formula

Mostly Formula, some Breastfeed

Mostly Formula

Save Cancel

Secondary Fluids

<input type="checkbox"/> Milk	<input type="text"/>
<input type="checkbox"/> Fruit juice	<input type="text"/>
<input checked="" type="checkbox"/> Carbonated drink	<input type="text"/>
<input type="checkbox"/> Sports drink	<input type="text"/>
<input type="checkbox"/> Glucose	<input type="text"/>
<input type="checkbox"/> Water	<input type="text"/>

MU2 Data Captured by Infant Feeding

Feature	User Input Required for Performance Measure?	Meets MU requirement
Feeding choice: SNOMED CT® encoded	No	CQM data capture

**“REFUSALS”
(REASONS SERVICE NOT DONE)**

Reasons Not Done: MU Required Features

- SNOMED CT[®] encoded reasons not done.
- Exposed in Personal Health, Clinical Reminder Dialogs, Immunizations, Exams.
- Also exposed in components that will be enabled in EHRp14 – AMI and Stroke.

Reasons Not Done

The screenshot shows a software interface with a dropdown menu open. The menu lists various reasons for why a service was not performed. The 'Refused' option is currently selected and highlighted in blue. Below the dropdown, there are input fields for 'Reason', 'Date Refused', and 'Comment'. The 'Reason' field currently contains '(None selected)'. The 'Date Refused' field contains '12/09/2013'. The 'Comment' field is empty. To the right of the dropdown, there are 'Add' and 'Cancel' buttons. The background of the interface shows a 'Personal Health' section with a tab labeled 'Enter Service'.

Reason
(None selected)
Absent response to treatment
Complication of medical care
Considered and not done
Contraindicated
Delay in receiving benefits
Discontinued
Finding related to health insurance issues
Loss of benefits
Medical care unavailable
Medical contraindication
Not entitled to benefits
Not indicated
Patient defaulted from follow-up
Patient noncompliance - general
Patient non-compliant - refused access to services
Patient on waiting list
Patient requests alternative treatment
Patient transfer
Refusal of treatment by patient
Refused
Treatment not available
Uninsured medical expenses

Reason: (None selected)

Date Refused: 12/09/2013

Comment:

MU2 Data Captured by Refusals

Feature	User Input Required for Performance measure?	Meets MU requirement
Reason not done: SNOMED CT® encoded	No	CQM data capture

ORDERS

Orders:

MU Required Features

- CPOE is required for lab, radiology, and medications.

Orders: IHS Additions

- Selection of Clinical Indication
 - SNOMED CT[®] Problem List (SNOMED encoded) and problems marked as POV
 - Option to search SNOMED
- Clinical Indication added for Consult order
- Reason for referral added for RCIS referral entry
- Otherwise no significant change for clinicians

CPOE Measure

More than ***60 percent of medication, 30 percent of laboratory, and 30 percent of radiology orders created*** by the EP during the EHR reporting period are recorded using CPOE.

MU2 Data Captured by Orders

Feature	User Input Required for Performance Measure?	Meets MU requirement
CPOE	Yes	MU2 rule
Consults and Referrals (SNOMED CT® referral type, consult received)	No	CQM data capture

CONSULTS

Consults:

MU Required Features

- SNOMED CT[®] for type of referral – requires CAC update existing consults.
- Problem hook using new Clinical Indication field.

Consults:

MU Required Features (cont.)

- User will note new clinical indicator field; otherwise, user experience is the same.

The screenshot shows a dialog box titled "Order a consult" with the following fields and options:

- Consult to Service/Specialty:** A list box containing "ANTICOAGULATION (OUTPATIENT)".
- Urgency:** A dropdown menu set to "ROUTINE".
- Attention:** A dropdown menu.
- Patient will be seen as an:** Radio buttons for "Inpatient" and "Outpatient" (selected).
- Place of Consultation:** A dropdown menu set to "CONSULTANT'S CHOICE".
- Clinical Indicator:** A dropdown menu with "Angina | 413.9" selected and "Other..." visible below.
- Reason for Request:** A large text area.
- Summary:** A text box at the bottom left containing "ANTICOAGULATION (OUTPATIENT) Cons CONSULTANT'S CHOICE".
- Buttons:** "Accept Order" and "Quit" buttons at the bottom right.

MU2 Data Captured by Consults

Feature	User Input Required for Performance Measure?	Meets MU requirement
Consults and Referrals (SNOMED CT® referral type, consult received)	No	CQM data capture

CQM DATA CAPTURE

CQM Data Capture: MU Required Features

- Require many of our data be represented in standard vocabularies:
 - SNOMED
 - LOINC
 - RxNorm
 - UNII
 - And more
- Majority of data is stored in the background directly (problem list) or through background mapping.
- Two new components to document AMI and stroke data were developed and delivered disabled due to edit issues. These will be corrected and delivered enabled in EHRp14.

Required Data Input

Data for Measures	EHR/RPMS Input
SNOMED CT® for problems	IPL
SNOMED CT® for diagnosis	IPL – select problems as POV
ICD-9 (ICD-10 after 1 October 2014) for diagnoses	IPL – select problems as POV (mappings from SNOMED, verified/edited by Coders)
SNOMED CT® for patient education (stored in background)	IPL – patient ed, Reminder Dialog - patient ed, Patient Ed
SNOMED CT® and LOINC for Smoking, ECOG health factors	Health Factors, Reminder Dialogs
SNOMED CT® and LOINC for measurements +/- value	Vital measurement, Reminder Dialog
SNOMED CT® and LOINC for exams +/- result	Vital measurement, Reminder Dialog
SNOMED CT® for immunizations	Immunizations, Reminder Dialog

Required Data Input (cont.)

Data for Measures	EHR/RPMS Input
SNOMED CT® for Infant feeding choice	Infant feeding
SNOMED CT® for referral type	Consult and Referral entry
RxNorm for Meds	Order meds
RxNorm, UNII for causative agent	Enter allergies/ADR
SNOMED CT® for medication + reaction	Enter allergies/ADR
SNOMED CT® and LOINC for labs	Lab order entry and processing
SNOMED CT® and LOINC	Radiology
CPT, ICD procedure	Services
SNOMED CT® for various encounter and admission related data	Visit creation, Admission
SNOMED CT® for medication reconciliation	Chart review, CIR incorporation of meds, Medication Management component

Data Input

Data for Measures	EHR/RPMS Input
Stroke data: date of arrival, baseline state, SNOMED CT® for signs/symptoms, date/time fibrinolytic initiated, SNOMED CT® reason not initiated, Stroke score	Stroke tool (<i>delivered corrected and enabled in EHRp14</i>)
AMI data: date of arrival, Date/time EKG done, SNOMED CT® & ICD for EKG impression, date/time fibrinolytic initiated, SNOMED CT® reason not initiated	AMI tool (<i>delivered corrected and enabled in EHRp14</i>)

Mapping/Storage of Data

RPMS/EHR Data	Stores Additional Data
Measurements	LOINC and/or SNOMED
Health Factors	LOINC and/or SNOMED
Exams	SNOMED
Immunizations	SNOMED
Infant feeding	SNOMED
Education	SNOMED
Reasons not done (refusals)	SNOMED
Type of referral (RCIS, Consults)	SNOMED

Mapping/Storage of Data (cont.)

RPMS/EHR Data	Stores Additional Data
Labs	LOINC
Radiology	LOINC and/or SNOMED
AMI data (<i>delivery EHRp14</i>)	SNOMED
Stroke data (<i>delivery EHRp14</i>)	SNOMED
Medications	RxNorm
Allergy ingredients	RxNorm and/or UNII
Allergy reactions	SNOMED
Medication reconciliation	SNOMED

TIU/NOTES

TIU/Notes:

MU Required Features

- Create electronic notes (no change).
- Text searchable notes (delivered in EHRp11).

TIU/Notes: IHS Additions

- New TIU objects to support new IPL features.
- Updated Infant Feeding object.
- EHR upgrade required incorporation of numerous VA TIU patches.
 - Includes standardization and mapping of National Note Titles.
 - Requires clean up and mapping over time.
 - Users will not notice change but CACs will need to map new note titles.

TIU Object “Active Problems w/o Dates”

Displays problems marked as “Chronic.”

```
Chronic Problems:  
Obesity | Can add clarification  
  
Chronic otitis externa | right  
  
Diabetes mellitus type 2 |  
  
Asthma |  
  
Lactocele | This is a test  
  
Abnormal findings diagnostic imaging heart+coronary circulat |  
  
Closed fracture of proximal ulna, comminuted | left, traumatic acute, swelling and hematoma at site
```

TIU Object “V Prob w/o dates”

Displays the problems selected as POV for current visit, visit instructions and education topics.

```
V Prob w/o dates
1)Open fracture of base of neck of femur | left, fall off cliff
  -QUALIFIERS:
  Severity Mild
  Clinical course Cyclic
  -INSTRUCTIONS:
  ORIF scheduled with Dr Bones tomorrow.   ( by )

2)Diabetes mellitus type 2 |
  -QUALIFIERS:
  Severity Moderate
  Clinical course Acute-on-chronic
  -INSTRUCTIONS:
  Initial visit with Diabetes Case Management team today to receive
  glucose monitor.  Check sugars in the morning and after meals for the
  next 2 weeks.  Start metformin, take with meals to reduce the
  gastrointestinal side effects.  Follow up with Diabetes Case
  Management team and return to see me in 2 weeks.
  ( by )
  -EDUCATION:
  Diabetes mellitus type 2-DISEASE PROCESS

3)Hypothyroidism |
  -INSTRUCTIONS:
  TSH elevated and Free T4 supressed, increrase Levothyroxine to
  .112mg/day.  Return for labs in 4-6 weeks. ( by )
```

TIU Object “V Prob w/care plans”

Displays problems selected as POV, any active goal and care plan notes, visit instructions and education for current encounter.

```
V Prob w/care plans
1)Open fracture of base of neck of femur | left, fall off cliff
-QUALIFIERS:
Severity Mild
Clinical course Cyclic
-CARE PLANS:
Open reduction internal fixation with Dr Bones on 7/25. Plan home
PT and Deep Vein Thrombosis prophylaxis. This will be arranged
during the inpatient stay. ( by )
-INSTRUCTIONS:
ORIF scheduled with Dr Bones tomorrow. ( by )

2)Diabetes mellitus type 2 |
-QUALIFIERS:
Severity Moderate
Clinical course Acute-on-chronic
-GOALS:
A1C <7 ( by )
-CARE PLANS:
A1C every 3 months until reach goal then every 6 months. Yearly:
fasting lipids, kidney function, retinal eye exam, foot exam.
Initial management with oral medications. Co-management with
Diabetes Case Management team who provides ongoing education about
diet, exercise, medications. ( by )
-INSTRUCTIONS:
Initial visit with Diabetes Case Management team today to receive
glucose monitor. Check sugars in the morning and after meals for the
next 2 weeks. Start metformin, take with meals to reduce the
gastrointestinal side effects. Follow up with Diabetes Case
Management team and return to see me in 2 weeks.
( by )
-EDUCATION:
Diabetes mellitus type 2-DISEASE PROCESS

3)Hypothyroidism |
-INSTRUCTIONS:
TSH elevated and Free T4 suppressed, increase Levothyroxine to
.112mg/day. Return for labs in 4-6 weeks. ( by )
```


Inpatient Objects

INPT PROBLEM LIST

- Displays problem marked as for inpatient for current hospitalization

INPT PROBLEMS W/CARE PLANS

- Displays problem marked as for inpatient for current hospitalization
- Includes Goals, Care Plans, Instructions for each

INPT PROBLEMS W/INSTRUCTIONS

- Displays problem marked as for inpatient for current hospitalization
- Includes Instructions for each

Electronic Notes Measure

Enter at least one electronic progress note created, edited, and signed by an EP for more than 30 percent of unique patients with at least one office visit during the EHR reporting period. The text of the electronic note must be text-searchable and may contain drawings and other content.

MU2 Data Captured by TIU Notes

Feature	User Input Required for Performance Measure?	Meets MU requirement
Document care in TIU notes	Yes	MU2 rule

VA HEALTH SUMMARY COMPONENTS

TIU/Notes: MU Required Features

None

VA Health Summary: IHS Additions

New Health Summary objects to support new IPL features.

MU2 Data Captured by VA Health Summary Components

None

CLINICAL DECISION SUPPORT

CDS: MU Required Features

Clinical Decision Support (Clinical Reminders 2.0 upgrade)

- Reference information added to Clinical Maintenance
- Bibliographic information added to Reminder Descriptions
- Many support CQMs (table will be delivered with patch documentation)

HL7 info “I” button retrieves UpToDate clinical info

- Repurposed old “I” button to “Ed” button to continue to retrieve Patient Education

Drug-Drug/Drug-Allergy interaction

- Only change is reference information on title bar

Reminders 2.0 in a Nutshell

Upgrade to Reminders 2.0

- Conversion to version 2.0 and 8+ years of fixes/enhancements
- Lots of new functionality on the RPMS side
- Same look and feel in EHR but some enhanced dialog functionality
- Installing new reminders are a little different
- Reminders installed on your RPMS when you load patch will still work, but formatting may be a bit changed

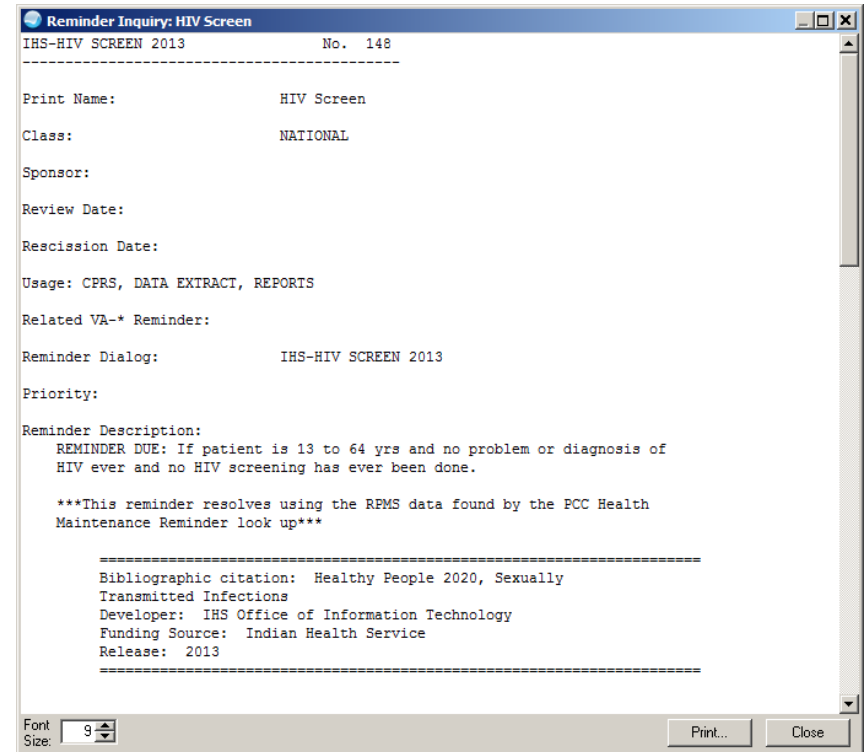
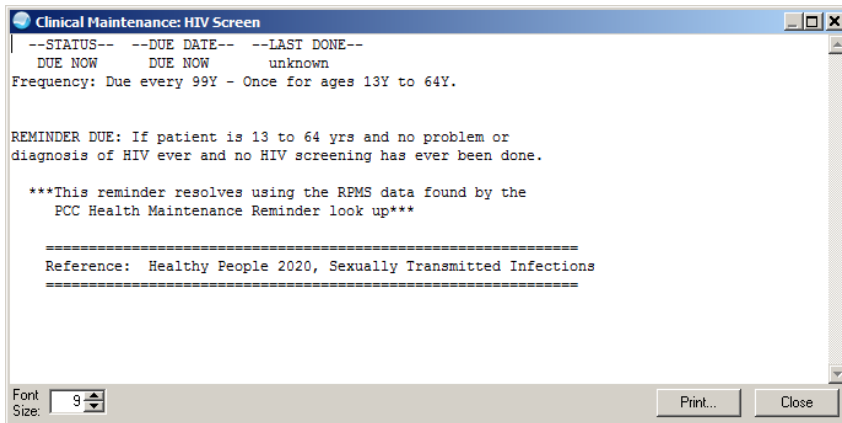
You cannot install any v1.5 reminders once you have loaded 2.0.

Reminders 2.0: IHS Modifications

Clinical Reminders updated to “Reminders 2.0”

- Updated reminders
 - Updated in v2.0
 - Reference data for reminders (Bibliographic, Funding Source, Developer)
 - Some logic updates where needed
- Table with measures and guidelines reminders support

Reminders 2.0: IHS Modifications (cont.)



MU2_CDS Reminders Table

	A	B	C	D	E
1	REMINDER/DIALOGS	CMS	NQF	CQM Name	Other Measures/Guidelines
2	IHS-ACTIVITY SCREEN 2013				Million hearts, HP 2020 - PA
3	IHS-ALCOHOL SCREEN 2013				GPRA, USPSTF, HP 2020 - SA
4	IHS-ALLERGY 2013				
5	IHS-ANTICOAG DURATION OF TX 2013				US American College of Chest Physicians Antithrombotic Therapy and Prevention of Thrombosis Panel
6	IHS-ANTICOAG INR GOAL 2013				US American College of Chest Physicians Antithrombotic Therapy and Prevention of Thrombosis Panel
7	IHS-ANTICOAG THERAPY END DATE 2013				US American College of Chest Physicians Antithrombotic Therapy and Prevention of Thrombosis Panel
8	IHS-ASTHMA ACTION PLAN 2013	26	338	Home Management Plan of Care (HMPC) Document Given to Patient/Caregiver	NHBLI Asthma Guidelines, HP 2020 - RD 7
9	IHS-ASTHMA CONTROL 2013				NHBLI Asthma Guidelines, HP 2020 - RD 7
10	IHS-ASTHMA PRIM PROV 2013				NHBLI Asthma Guidelines, HP 2020 - RD 7
11	IHS-ASTHMA RISK EXACERBATION 2013				NHBLI Asthma Guidelines, HP 2020 - RD 7
12	IHS-ASTHMA SEVERITY 2013				NHBLI Asthma Guidelines, HP 2020 - RD 7
13	IHS-ASTHMA STEROID 2013	126	0036	Use of Appropriate Medications for Asthma	NHBLI Asthma Guidelines, HP 2020 - RD 7
14	IHS-BLOOD PRESSURE 2013	165	0018	Controlling High Blood Pressure	Million hearts, HP 2020 - HDS
15	IHS-CHLAMYDIA SCREEN 2013	153	0033	Chlamydia Screening for Women	USPSTF, HP 2020 - STI
16	IHS-COLON CANCER 2013	130	0034	Colorectal Cancer Screening	HP 2020 - Cancer, GPRA
17	IHS-CVD 2013	30	639	AMI-10 Statin Prescribed at Discharge	GPRA, Million hearts, ATP III 2004, Million hearts, HP 2010 – HDS
18	IHS-DENTAL VISIT 2013				HP 2020 - Oral Health
19	IHS-DEPO PROVERA 2013				HP 2020 - FP
	IHS-DEPRESSION SCREENING 2013	2	0418	Preventive Care and Screening: Screening for Clinical Depression and	GPRA, HP 2020 - MHMD

What Do I Need to Do Right After Install?

- Inactivate existing mammogram reminder and install new mammogram reminders (there are three).
- If you have any Immunization reminders deployed, you must install the new Immunization reminders.
 - You do not have to move these into production immediately, but you should replace your old immunization reminders with the new ones fairly soon.

What Do I Need to Do Right After Install (cont.)

- Check existing reminders to make sure nothing is significantly changed in formatting. The remaining reminders should work as before.
- Review new reminders and determine if any need immediate updating.

Then What Do I Need to Do?

- Update your reminders with the v2.0 set – prioritize with reminders you need to attest for MU2.
- Review new functionality – reminders you have wanted to build may now be possible.

Clinical Decision Support Measure

- Implement **five** clinical decision support interventions **related to four or more clinical quality measures**, if applicable, at a relevant point in patient care for the entire EHR reporting period.
- The EP, eligible hospital, or CAH has **enabled the functionality for drug-drug and drug-allergy interaction** checks for the entire EHR reporting period.

How to Meet the Measure

- Enable drug-drug and drug-allergy interaction at the ***system level***.
- Review the MU2_CDS Reminders and, if needed, install additional reminders to ensure five are deployed.
 - Set these at the ***System Level***.
- For attestation, run the ***User Parameter Value Report by Date*** for the reporting time period.

Parameter Report

The new parameter reports enable a site to review the CDS tools that were enabled during the reporting period.

Parameter Audit System Menu

MGPA Parameter Audit System Management ...

RPPA Parameter Audit Reports ...

Parameter Report (cont.)

RUPA User Parameter Value Report by Date

Select Parameter Audit Reports Option:

Rupa User Parameter Value Report by Date

Select one of the following:

- 1 User Defined Date Range
- 2 Quarter: January 1 - March 31
- 3 Quarter: April 1 - June 30
- 4 Quarter: July 1 - September 30
- 5 Quarter: October 1 - December 31**

Select Report Period: (1-5): 5

Enter the Calendar Year for which report is to be run.

Use a 4 digit

year, e.g. 2014.

Select Year: 2013 (2013) 2014 (2014)

Select one of the following:

- IP Individual Provider
- SEL Selected Providers (User Defined)
- TAX Provider Taxonomy List

Enter Selection: ip **Individual Provider**

Select a provider: NIESEN,MARY ANN MAN
enter for Seven, Henry – display then run for
User,Clerk

Parameter Selection

You may select one or more Parameters.

Press the <Enter> key without entering a name to
conclude the selection process.

Enter "^" to abort the selection process.

Select a Parameter: **ORQQPX COVER SHEET
REMINDERS**

Select a Parameter:

DEVICE: HOME// VT Right Margin: 80//

Parameter Report

01/16/2014 Page: 1

ORQQPX COVER SHEET REMINDERS Parameter Report

For provider: PRESCRIBERONE,ONE TEST

01/01/2014 - 03/31/2014*

*Auditing for this parameter was ENABLED on 01/16/2014

IHS-IMMUNIZATION FORECAST 2011	SYS 01/16/2014 - 01/16/2014 Lock
IHS-TOBACCO SCREEN 2013	SYS 01/16/2014 - 01/16/2014 Lock
IHSMU2-ACE/ARB ALLERGY 2014	USR 01/16/2014 - 01/16/2014 Normal
IHSMU2-ALLERGY 2014	USR 01/16/2014 - 01/16/2014 Normal
IHSMU2-ANTICOAG INR GOAL 2013	USR 01/16/2014 - 01/16/2014 Normal
IHSMU2-BP ELEVATED 2014	USR 01/16/2014 - 01/16/2014 Normal
IHSMU2-DIAB ACE/ARB 2013	USR 01/16/2014 - 01/16/2014 Normal
IHSMU2-DIAB BP CONTROL 2014	USR 01/16/2014 - 01/16/2014 Normal
IHSMU2-DIAB HGBA1C CONTROL 2014	USR 01/16/2014 - 01/16/2014 Normal
IHSMU2-HCT/HGB 2013	USR 01/16/2014 - 01/16/2014 Normal

Resources

Clinical Applications Documentation repository

http://www.ihs.gov/RPMS/index.cfm?module=Applications&option=View&AC_ID=0