

Opensource CCR and CCD support for VistA based systems

Project Update

June 19, 2009 by George Lilly and San Habiel glilly@glilly.net

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Collaborators

Organizations

WorldVista

HP

KRM

Medsphere

Robert Morris University

Sequence Managers

University of Minnesota

Individuals

- George Lilly
- Christopher Anderson
- Nancy Anthracite
- Lee Castonguay
- Duane DeCorteau
- Emory Fry
- Sam Habiel
- Jose Lacal
- John McCormack
- Ben Mehling
- Dennis Menor
- Ken Miller

- Kevin Peterson
- Mike Schendel
- Fay Strubel
- Thomas Sullivan
- Chris Uyehara
- David Whitten
- Greg Woodhouse
- JohnLeo Zimmer

Topics

- Definition
- Purpose
- Snapshot
- Highlight
- Contributors

Definition: The Continuity of Care Record (CCR) is a machine readable and human readable ASTM XML standard data set of a person's clinical status

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Continuity of C	are Record - Mo	ozilla Fir	refox						(
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Continuity	of Care R	ecord								
continuity	or care its		1							
Date Created:	Tue Ja	n 06, 20	09 at 02:58	PM UTC-05:0	0					
From:) HOSP∏ VistA EH	TAL HR/VOE 1.0							
To:	FATHE	ER DEM	O (Patient)							
Purpose:	CEND	PHR								
FATHER DEMO	Jan 01, 1955	MALE	SSN	554367867	Home: 3433 Smith Oklahoma (St Sty, OKLAHOMA3	2245			
Alerts										
	Description				Rea	ction Source				
	Description Patient has an	UNKNO	WN reacti	on to PENICI			GER CLINICAL C	OORDINATOR		
Type Date Code	-	UNKNO)WN reacti	on to PENICI			GER CLINICAL C	OORDINATOR		
Type Date Code Problems	Patient has an	UNKNO Descrip		on to PENICI		H MARY G HA	GER CLINICAL C	OORDINATOR		
Type Date Code Problems Type Date C	Patient has an	Descrip		on to PENICI	LLINS. RAS	H MARY G HA	GER CLINICAL C	OORDINATOR		
Type Date Code Problems Type Date C Problem 4	Patient has an	Descrip HYPER	ption	on to PENICI	LLINS. RAS	H MARY G HA	GER CLINICAL C	OORDINATOR		
Type Date Code Problems Type Date C Problem 4 Problem 3	Patient has an Code 401.9 (ICD9CM)	Descrip HYPEF TOBA	ption RTENSION CCO USE		Status Sour	H MARY G HA	GER CLINICAL C	OORDINATOR		
Problem 4 Problem 3 Problem 2	Patient has an Code 401.9 (ICD9CM) 805.1 (ICD9CM)	Descrip HYPEF TOBAC TYPE	ption RTENSION CCO USE		Status Sour	H MARY G HA	<u>GER CLINICAL C</u>	OORDINATOR		

The CCR dataset has many intended purposes including the exchange of medical records, synchronization with clinical repositories, and the transformation into clinical messages

Exchange of medical records:

- Between two EHR systems (VistA<->VistA and VistA<->Other)
- With a Personal Health Record (PHR) like Google Health or MS HealthVault

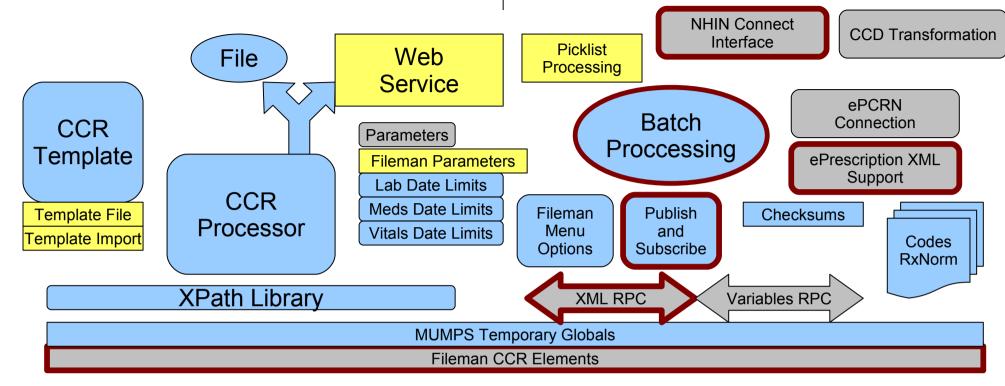
Synchronization with clinical repositories:

- For clinical decision support
- For research and clinical trials as with the Electronic Primary Care Research Network (ePCRN)

Transformation into clinical messages

- XSLT transformation into a Continuity of Care Document (CCD)
 - For use the the National Health Information Network (NHIN)
 - For CCHIT Certification
 - For HIPAA Claims Attachments
- Transformation into XML Web Service messages for ePrescribing

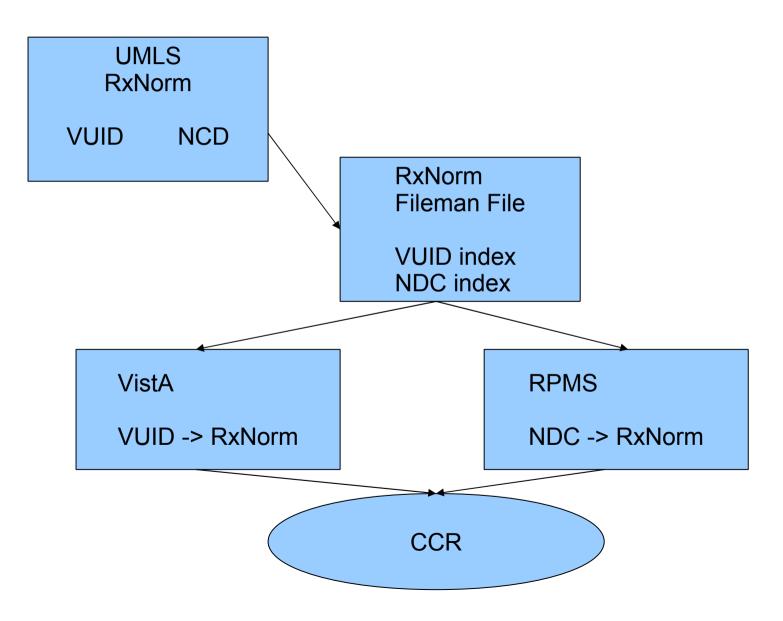
CCR/CCD PROJECT SNAPSHOT 6/19/2009



$\left(\right)$	Export						\mathcal{A}	Import (Acc	essio	ning)
	Family History	Advance Di	rectives		Lab Results	Vital Signs		Alerts/Allergies		
	Procedures	Support	Payer	rs	Medications	Rroblems	Actors	Medication Adv	visories	
	Encounters	Functional	Status		Immunizations	Alerts/Aller	gies	(ePrescribir	ng)	
	Plan of Care	Medical Equi	pment S	Socia	al History					
		GTM Cache	tA	W	^{GTM} orldVistA EHR	GTM Cach FOIA	e	GTM Cache		

 Legend
 Planned
 In Development
 Testing
 In Production
 Recent Change

Medications are coded in the CCR extract by RxNorm by using UMLS mappings from VUID and NDC codes



Recently, we demonstrated the transformation of our CCRs into level 2 CCDs thanks to an XSLT transformation contributed by Ken Miller

continuity	of Care Document - Mozilla Firefox					
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	C	Continuity of Care Document				
		Created On: January 25, 2009				
Patient:	TEST ZZ PATIENT	MRN:				
Birthdate: Guardian:	January 15, 1968	Sex: Next of Kin:				
Table of Con	itents					
• Purpose						
<u>Alerts</u>						
 <u>Problems</u> Medication 						
 Vital Sign 	15					
• Addition	al Information About People & Organizations					
oupose						
END PHR						
Alerts						
	Code De:	escription Reaction Source				
Type Date		escription Reaction Source MC reaction to PROBALANCE. RASH CHRIS FARLEY CLINICAL COORDINATOR				
Type Date Allergy 43		-				
Type Date Allergy 4 Problems		-				
Type Date Allergy 4: Problems Type Date	18634005 (SNOMED CT) Patient has an ALLERGI Code	The reaction to PROBALANCE. RASH CHRIS FARLEY CLINICAL COORDINATOR Description Status Source				
Type Date Allergy 4: <u>Problems</u> Type Date Problem V	18634005 (SNOMED CT) Patient has an ALLERG Code 718.0 (ICD9CM) Family History of Diabetes Melli	IC reaction to PROBALANCE. RASH CHRIS FARLEY CLINICAL COORDINATOR Description Status Source litus (ICD-9-CM V18.0) Active CHRIS FARLEY CLINICAL COORDINATOR				
Type Date Allergy 4: <u>Problems</u> Type Date Problem V Problem 2	18634005 (SNOMED CT) Patient has an ALLERG Code 718.0 (ICD9CM) Family History of Diabetes Melli 550.02 (ICD9CM) Diabetes Mellitus without menti	Description Status Source litus (ICD-9-CM V18.0) Active CHRIS FARLEY CLINICAL COORDINATOR				
Type Date Allergy 4: <u>Problems</u> Type Date Problem V Problem 2	18634005 (SNOMED CT) Patient has an ALLERG Code 718.0 (ICD9CM) Family History of Diabetes Melli	IC reaction to PROBALANCE. RASH CHRIS FARLEY CLINICAL COORDINATOR Description Status Source litus (ICD-9-CM V18.0) Active CHRIS FARLEY CLINICAL COORDINATOR				