HL7 C-CDA
Consolidated Clinical Document Architecture

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HL7 C-CDA Resources

- Introduction
- HL7 CDA Product Management
- C-CDA implementation-a-thon(s)
- Access to Value Set(s) for C-CDA
- CDA Example Search Facility
- “SITE” Validator & Scorecard
- CDA R2.1 Standard
- C-CDA on FHIR IG
Founded in 1987, Health Level Seven International (HL7) is a not-for-profit, ANSI-accredited standards developing organization. It is supported by more than 1,500 volunteer members from over 34 countries, including 470+ corporate members representing healthcare providers, government stakeholders, payers, pharmaceutical companies, vendors/suppliers, and consulting firms.

We come together to enable cost effective interoperability in the healthcare industry!
Introduction C-CDA

• The Consolidated Clinical Document Architecture IG

C-CDA Document Types

• Care Plan
• Consultation Note
• Continuity of Care Document
• Diagnostic Imaging Reports
• Discharge Summary
• History and Physical
• Operative Note
• Procedure Note
• Progress Note
• Referral Note
• Transfer Summary
• Unstructured Document
• Patient Generated Document
C-CDA R2.1 Companion Guide

The new Companion Guide:

- Provides additional context to assist implementers and identify tools and resources
- Maps the common clinical data set (CCDS) to the appropriate C-CDA locations
- Provide guidance for meeting the 2015 Ed. CEHRT data requirements
- Includes clinically-valid examples of C-CDA components necessary to meet 2015 Ed. CEHRT requirements
- Recommends an approach to implementations using the C-CDA IG to meet the needs of clinicians and achieve ONC Certification

- This includes:
  - Ensuring CDA product quality and consistency
  - Guide Work Groups in their development of CDA IGs
  - Create CDA Product recommendations as needed
  - Support activities such as education and connect-a-thons
  - Resolving CDA related disputes

CDA Management Group

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Jean Duteau  Rick Geimer  Kai Heitmann MD
Linda Michaelsen  Dale Nelson  Andrew Statler

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C-CDA Implementation-a-thons

- June 22, 2017
- Jan. 25-26, 2018
- 2018 Mid-year
- 2018 Fall

Homework Scenarios
Companion Guide
C-CDA Scorecard
VSAC for Value Sets
Current Challenges
Ask the ONC

- EHR Vendors
- Consultants
- HL7 Co-chairs
- ONC Staff
- Others...
SDWG piloted a project to migrate the C-CDA Value Sets into VSAC.

- The pilot was followed up with a release of value set changes synced to the 2018 Errata release of C-CDA from the SD WG.

**CHALLENGES:**
- Updating the C-CDA R2.1 standard
- Updating the Value Sets used for C-CDA R2.1

Access to C-CDA Value Sets

The VSAC is a repository and authoring tool for public value sets created by external programs. Value sets are lists of codes and corresponding terms, from NLM-hosted standard clinical vocabularies (such as SNOMED CT®, RxNorm, LOINC® and others), that define clinical concepts to support effective and interoperable health information exchange. The VSAC does not create value set content. The VSAC also provides downloadable access to all official versions of value sets specified by the Centers for Medicare & Medicaid Services (CMS) electronic Clinical Quality Measures (eCQMs). For information on CMS eCQMs, visit the eCQM Resource Center. The VSAC is provided by the National Library of Medicine (NLM), in collaboration with the Office of the National Coordinator for Health Information Technology (ONC) and CMS.

Subscribe to the VSAC Updates list for VSAC announcements about new content releases and functionality updates.

All Value Sets
Explore the entire VSAC repository of published value sets. Search by value set name, object identifier (OID), codes, terms and purpose, filter by release program, steward, and code systems.

CMS eCQM Value Sets
eCQMs use data from electronic health records (EHR) and/or health information technology systems to measure health care quality. eCQM value sets specify terminology codes required for eCQM measurement and are updated by CMS one or more times each year. Learn More ▶

HL7 C-CDA Value Sets
Consolidated Clinical Document Architecture (C-CDA) value sets provide standardized terminology data elements for exchanging templated clinical information (e.g., Allergies, Encounters, Immunizations, Problems, Procedures, etc.) from electronic health records. Learn More ▶

CMS Hybrid Value Sets
Core Clinical Data Elements and Hybrid Measures use a set of core clinical data elements, clinical variables from electronic health records (EHRs), that are routinely collected and can be feasibly extracted for use in risk-adjusted hospital-level hybrid outcome measures. Learn More ▶
Access to C-CDA Value Sets

VSAC Downloadable Resources

This page contains groups of value sets designated for a particular program usage. You can search the entire repository of published VSAC value sets in the Search Value Sets tab.

- CMS eCQM Value Sets
- C-CDA Value Sets
- CDCREC Roll-up codes

Consolidated Clinical Document Architecture (C-CDA) Value Sets

The Consolidated Clinical Document Architecture (C-CDA) value sets in VSAC are authored by Health Level 7 International (HL7) to provide standardized terminology data elements for exchanging templated clinical information (e.g., Allergies, Encounters, Immunizations, Problems, Procedures, etc.) from electronic health records.

Consolidated CDA Overview
- HL7 CDA R2 Implementation Guide: Consolidated CDA Template for Clinical Notes (US Realm) Draft Standard for Trial Use Release 2.1

Available in this download are the C-CDA value set expansions available in VSAC as of the date noted on the download for the list of value sets noted below. This is a partial set for use in creating C-CDA R1.1 and C-CDA R2.1 based documents. We will update these download files with additional value set expansions as they become available in VSAC.

- C-CDA R2.1 Value Sets Available in VSAC, Publication Date: February 01, 2018
- C-CDA R1.1 Value Sets Available in VSAC, Publication Date: June 23, 2016

Last updated: Jan 31, 2018
First published: October 29, 2012
Version: 2.16.3
CDA Example Task Force
SDWG formed the CDA template example task force to collect and share samples.
The task force developed a process with SDWG to receive approval for samples.
This new search tool should make it easier to find and access the Official HL7 CDA Examples

http://hl7-c-cda-examples.herokuapp.com/
CDA Example Search Facility

Encounters Section

<entry>
  <encounter id="EN1" classCode="ENC">
    <templateId root="2.16.840.1.113883.10.20.22.4.49"/>
    <templateId root="2.16.840.1.113883.10.20.22.4.49" extension="2" id root="2482d2c83-2011-0138-0721-001004045870"/>
    <!-- CPT code should be used for ambulatory visits, but for a p -->
    <code code="99238" display="Discharge day management service"/>
    <originalText>
      <reference value="#nct1_type"/>
    </originalText>
    <translation code="TMP" codeSystem="2.16.840.1.113883.5"/>
  </code>
  <text>
    <reference value="#encounter1"/>
  </text>
  <!-- For a hospitalization, the low and high effective times will -->
  <effectiveTime xsi:type="ITVL.TS">
    <low value="201403021222+0000"/>
    <high value="201403021222+0000"/>
  </effectiveTime>
  <!-- Note that this extension is used to document dischargeDis -->
  <sct:dischargeDispositionCode code="04" display="Discharge" codeSystem="2.16.840.1.113883.6.301.5" codeSystemName=" />
  <sct:dischargeDispositionCode>
    <performer typeCode="PER"/>
  </sct:dischargeDispositionCode>
  <time>
    <low value="201403021222+0000"/>
    <high value="201403021222+0000"/>
  </time>
  <assignedEntity classCode="ASSIGNEDH">
    <id root="2.16.840.1.113883.4.6" extension="123" code code="20000000X" codeSystem="2.16.840.1" address use="MP"/>
    <streetAddress line="763 Horseshoe Rd" city="ST" state="OR" postalCode="90876-4100"/>
  </assignedEntity>
</entry>

Hospital Discharge Encounter with Billable Diagnoses

Approval Status
- Approval Status: Approved
- Example Task Force: 12/18/2014
- SDWG: 2/12/2015
- SDWG C-CDA R2.1 Upgrade: 12/1/2016

C-CDA 2.1 Example:
- 2.16.840.1.113883.10.20.22.2.2.2:2015-08-01
- 2.16.840.1.113883.10.20.22.4.49:2015-08-01
- 2.16.840.1.113883.10.20.22.4.32
- 2.16.840.1.113883.10.20.22.4.33:2015-08-01
- 2.16.840.1.113883.10.20.22.4.34:2015-08-01
- 2.16.840.1.113883.10.20.22.4.119

Reference to full CDA sample:
- Encounter in empty CCD

Validation location
- Site

http://hl7-c-cda-examples.herokuapp.com/
SITE: Standards Implementation & Testing Environment

- C-CDA Validator
- C-CDA Scorecard

https://sitenv.org/web/site/c-cda-validator
https://sitenv.org/scorecard/
The CDA R2.1 Standard

- Adds extensions in use
- Enables tables in tables
- Supports digital signatures
- Improved documentation
- Improved semantic capabilities

CDA R2.0 → CDA R2.1

The CDA R2.1 Standard

- Sept. Normative Ballot
- May Final Normative Ballot
This Implementation Guide defines a series of FHIR profiles on the Composition resource to represent the various document types in C-CDA. This release does not directly map every C-CDA template to FHIR profiles, but rather tries to support the C-CDA use case using U.S. Core FHIR profiles.

HL7 has a project to evaluate translation strategies between C-CD A and C-CDA on FHIR!
QUESTIONS?

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